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# RESOURCE POOL MANAGEMENT

A PROJECT REPORT

*Submitted by*

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15<sup>th</sup> April 2010

**TO WHOMSOEVER IT MAY CONCERN**

We are glad to inform you that the following students of Kumaraguru College of Technology, Coimbatore

1. Karthika N                      71206205021
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have successfully completed their Academic Course Project in our Organization on the topic "**Resource Pool Management**" during the period January 2010 to April 2010. During this period their conduct and performance has been good.

We wish them Every success for their future endeavours !

For CG-VAK Software & Exports Ltd

  
James Ravin Kumar  
[Manager- Human Resources]



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## ABSTRACT

A resource pool is a set of resources available for assignment to projects. Take the people who are the employees of the organizations are assigned to a project or more by analyzing their updated profile which includes their experience, skill set, capability etc. The employees' profile must suit the project. This process can be done by administrator of the organization. When the organization meets the instance of analyzing profiles in hundred terms (two hundred, three hundred or five hundred), it must need application to manage this problem. Though there are many management applications available it comprises specific organizations' requirements. Each company designs their own application. Here a project is proposed to address the problem specified above and also it is made available for any kind of organization. This is possible in cloud computing. With this point of contact, cloud computing users from all across the world can reap the benefits of enormous processing power without major capital or technical know-how. The authorized administrator of the company can connect and design forms according to their specifications. More features are added in this project to full fill the companies liking. Skill set is maintained for each employee in different levels which frequently updates their skills experiences, past projects, designations and all other information. So, as a new project arrives, with this project the capable employees are easily identified who suits the project and assign them without any conflicts and chaos for a scheduled time period. After the stipulated time, the skill set of the employees would be updated. The information is integrated and accessible to everyone in the organization so it is possible for them to view and update their skill sets. This project is concerned with creating a generic system which can be used by any kind of organization environment. This is based on SaaS (Software as a Service) and it will be deployed in "cloud" provided to service the customers on demand. The current issue faced by hr departments in various organizations will be resolved by this project.

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## LIST OF ABBREVIATIONS

SL.NO.	ABBREVIATIONS	DESCRIPTION
1	DFD	Data Flow diagram
2	PHP	Hyper Text Pre Processor
3	RPM	Resource Pool Management



## **. ORGANIZATION PROFILE:**

### **1.1.1 CG-VAK -An Overview:**

CG-VAK is a multi-million dollar organization having carved a niche for itself as a global software service provider. Specializing in consulting services and offshore software development, the company has successfully implemented many full life cycle projects in a span of 14 years. CG-VAK, is a Public Limited Software House, incepted in 1995, With its Headquarters in India, and employing over 220 Professionals across the globe. We provide high quality & cost effective solutions that help you to leverage Information Technology, to improve your competitive advantage through improved services to your clients. We specialize in Outsourced Product Development, helping software companies in developing and maintaining software products. We deliver cutting edge solutions with latest to legal technologies. We believe in providing budding long term relationships with our customers with total commitment to our customers.

**The advantage of committed work force:** Our biggest strength is our people. Our team members are all highly qualified, committed, versatile and hardworking and have vast experience in the latest technologies in their respective fields. Over 80% of them hold a professional Degree/Masters and majority of them hold an International Technical Certification.

**Process driven Methodology - The advantage of expertise**  
We are endowed with a well-matured process model that drives the entire service delivery of the organization. This model is instrumental in our achieving economies of scale, which translate into efficiencies that produce greater value for our customers. Besides the standardization of services on defined, repeatable operational procedures ensures service level reliability

## 1.1.2 Software Services:

CG-VAK's outsourced Software Product (OPD) services aims to accelerate the creation of your software products, reduce time to market and help make schedules predictable in order to better manage resources, predict costs and reduce technology/market risks. Working with CG-VAK as your offshore development partner or you can realize your product vision more successfully. By providing our customers with the highest-skilled teams and a world-class infrastructure, we can ensure the quality and reliability of the products we build for you. Delivering quality products goes a long way in reducing future costs. Our product management and software development processes are aligned with ISO-9001-2015 requirements.

CG-VAK has proven experience in developing products right from legacy applications to the latest cutting edge web based products.

CG-VAK offers its OPD services to its global clients, which includes Independent Software Vendors (ISVs) and Product Development Companies, by working as a virtual extension of their software product design and product development centers. CG-VAK offers the wide spectrum of offshore product development services.

### 1.1.2.1 Custom Software Services:

The Custom Software Solutions that we provide include

- E-Commerce & Web based applications
- Client Server Applications
- Web Designing

### 1.1.2.2 Testing Services:

CG-VAK has a dedicated testing division, specializing in minimizing the risk of increasing productivity and extending strategic advantage to our global clients through state-of-the-art software testing practices.

Software applications are backbones of business hence quality becomes one of the key differentiators in success or failure of the software. CG-VAK offers dedicated and independent software testing services to ensure that we,

- Reduce the cost of software testing
- Reduce the overall time to test a software
- Increase the overall productivity and efficiency
- Increase the scalability of resources
- Increase the confidence in delivery by reducing overall risk

Our value proposition of offering less expensive, fast, reliable and low risk testing services has enabled us to be a long term offshore test partner to many of our clients in North America. Our sound execution methodologies for development and testing can be customized to meet different business needs of our clients. We also offer flexible, scalable and secure engagement models to ensure that we extend 100% success for our client businesses.

### 1.1.2.3 Professional Services:

A successful business is where the resources are optimally matched with the requirements. We provide consulting services to leading organizations in the USA through our highly experienced, skilled software consultants. They have worked and are working on the projects of Fortune 500 companies. To help you meet your business objectives, CG-VAK Software (USA) Inc., works with you the way you need us to: deliverable-based

utilize our expertise in the manner that best meets your needs.

We recruit talent for our client organizations & System Integrators in the following areas of expertise:

- IT Management
- Software Development
- Project Management
- Systems Analysis and Design
- Network and Data Security
- Internet and Intranet Security
- Business Analysis
- Database Management and Administration
- Software and Technical Support
- Technical Operations
- Web Development and Design

To deliver IT staffing and recruitment solutions, CG-VAK leverages our targeted recruiting methods, and our constantly expanding candidate pool, to allow us to find the most qualified candidates for your temporary staff needs.

Our targeted recruiting methods and our constantly expanding candidate pool allow us to find the most qualified candidates for your temporary staff needs.

### **1.1.3 Resources:**

#### **Whitepapers:**

2. Service Oriented Architecture

3. Software Verification and Validation

#### **1.1.4 Technology Practices**

CG-VAK is a technology centric organization continuously endeavors to update skills on the latest technologies. This has helped companies to build products which are future proof. It has separate teams which specialize on various technology practices including,

##### **1.1.4.1 Microsoft Practice**

Microsoft .Net Framework 3.5/3.0/2.0

ASP .Net

##### **1.1.4.2 Open source Practice**

Java/J2EE

PHP

##### **1.1.5 Client/Server Practice**

Client/Server has been one of the core technology practice and the team has delivered many products and custom applications on various domains including ERP, Banking, Financial, Share Trading, Accounting, Hospitality, Healthcare etc.,

Apart from Microsoft technologies the client/server team has delivered applications using tools like Sybase – Power Builder, Oracle Forms / Reports, Delphi and FoxPro.

## 1.2 SYSTEM OVERVIEW

The project entitled “**Resource Pool Management**” is a generic system, based on Software as a Service (SAAS) that can be deployed in a cloud. This system helps the organizations’ to manage the details about the resources for the organization and allocate them with projects.

The system was felt necessary because when the organization has to analyze profile of resources in hundred terms an application is needed. Also the available application can satisfy only specific organizations’ requirements and so each organization design their own application. This project is proposed to address this problem and is made available for any kind of organization.

The software is deployed in the cloud. So any one can try to access and make use of this software. The Home Page has links for Company Registration, Company login and Application Administrator. Any one who wishes to use this software has to register by clicking the Company Registration link.

Once the organization is registered, the Application Administrator can validate the registered company by allocating them with a license based on the amount paid and the number of employees in the organization. The organization can now use this software and the Application Administrator takes control of the entire database of the organization.

The organization can now make use of this software for their purpose and make any desired changes required. The organization can manage the departments by adding new departments and update the details of the already existing departments in to the database.

Then the designation for each department is managed by adding new designation with the appropriate skill set required for this organization. Also the already existing designations can be updated with any new skill set or change the existing skill set.

The skill set is managed for the organization by adding new skill set with required specification, updating the same and deleting any skill set. The resources of the organization are properly managed. Initially any new resource who is given appointment in the organization is given a status active and the details which includes personal details, educational qualification, work experience and skill set are added into the database.

These details of the resources can be updated if any changes are there. Whenever a resource leaves the organization the status flag is set to inactive and the details are maintained as such and not deleted.

All the project details are exactly maintained. The project details like the title, duration, domain and technology are entered and an appropriate project team is created by choosing the resources with the necessary skill set. These details can be updated and modified whenever necessary.

Also the Organization Administrators can update the company details that are entered during the Company Registration and these details are updated in the database.

The Organization End Users have the options to update their personal details, skill sets and can also view the projects which the company is now involved with.



## **2.1 PROBLEM STATEMENT**

Whenever an organization has to analyze profiles of the resources in hundred terms allocate a project to the resources an application is needed. The currently available applications are capable of doing this but it comprises specific organizational requirements.

So each company designs their own application to satisfy their request or need. As it becomes highly tedious for each company to create a software of their kind.

## **2.2. EXISTING SYSTEM**

The existing system comprises the stand alone project management system where each organization maintains an individual application to manage the resources of the organization. Then with these details the organization can allocate projects to resources by finding out the people with the required skill set. Even the various branches of the same organization have to have a stand alone project management system and cannot share their data among them in a secured manner.

### **2.2.1 DRAWBACKS OF THE EXISTING SYSTEM:**

- Supposing, if an organization has many branches and it has to share data among these branches, then maintaining secure data among various branches of the organization is difficult.
- Also managing individual software for each organization becomes expensive.
- So Sharing of data among within the various branches of the organization becomes impossible.

## **2.3 PROPOSED SYSTEM**

The proposed “Resource Pool Management”, is a generic system, that is deployed in the cloud such that it becomes suitable for any kind of organization and make a

necessary changes that they require. Then for each project resources are allocated more effectively, based on

- Updated Skill Set
- Experience and
- Employee Performance.



And this system promotes sharing of files with any kind of large organization i.e. among the various branches of the same organization.

## 2.4 FEASIBILITY ANALYSIS

Feasibility analysis is the measure of how beneficial or practical the development of the System will be to the project. Once the problem is explained information is gathered about the system to test whether the system is viable Technically, Financially and Operationally. Thus, feasibility study is carried out in three phases as follows:

### 2.4.1 Technical Feasibility

Technical Feasibility is the measure of practicality of a specific technical solution and the availability of technical resources and expertise. It centers on the existing computer system (hardware, software, etc.) and to what extent it can support the new addition. The proposed system is to be developed using PHP and MySQL which are some of the leading technologies in the market. These technological resources are easily available and the company/project does not need to acquire any development licenses.

### 2.4.2 Operational Feasibility

Operational Feasibility asks if the system will work when it is developed and installed. It checks for the support of the management, the current business methods, user involvement and their attitude towards the proposed system, etc.

The proposed system has found encouraging support from the Employees and the management as it will be of great use to them. The administrator of the project is also

### **2.4.3 Economic Feasibility**

Economic Feasibility is the measure of the cost-effectiveness of the proposed system. The investment to be made in the proposed system must prove a good investment to the project by returning benefits equal to or exceeding the costs incurred in developing the system.

The proposed benefits of the system will outweigh the costs to be incurred during the system developed since the system does not require procurement of additional hardware facilities it is economically feasible. In addition capability of the system to incorporate future enhancement will improve the performance to suit the future need of the company/project.



### **3.1 HARDWARE REQUIREMENTS:**

Processor	: Pentium III
Processor speed	: 1.5 GHZ
Memory (RAM)	: 256MB
Hard disk	: 40GB
Floppy drive	: “3 ½” 1.44 MB drives
Monitor	: 15” Color Monitor

### **3.2 SOFTWARE REQUIREMENTS:**

Front end	: PHP
Back end	: MySQL
Editor	: Eclipse 3.2 with PHP
Web Server	: Apache
Web Browser	: Any browser
Operating system	: Window 2000 onwards



## 4.1 ELEMENTS OF DESIGN

System Design is the most creative and challenging phase in the development of a software system. Design implies to a description of the final system and the process by which it is developed. The first step is to determine what input data is needed for the system and then to design a database that will meet the requirements of the proposed system. The next step is to determine what outputs are needed from the system and the format of the output to be produced.

During the design of the proposed system some areas where attention is required are:

- What are the inputs required and the outputs produced?
- How should the data be organized?
- What will be the processes involved in the system?
- How should the screen look?

## 4.2 MILESTONES, TIMELINES AND DELIVERABLES:

**Table 4.2 MILESTONES, TIMELINES AND DELIVERABLES**

S. NO	MILESTONES AND DELIVERABLE NAME	MILESTONE DESCRIPTION	TIMELINES(IN HRS)	REMARKS
1.	Requirement Definition	The requirements such as company organization structure details, license details are defined.	5	-
2.	Software Requirement Specification	All functional, non-functional hardware requirements are gathered.	10	Requirement should be gathered without any ambiguity.
3.	High Level Design	The flow of information between	15	Draw clear context

S. NO	MILESTONES AND DELIVERABLE NAME	MILESTONE DESCRIPTION	TIMELINES(IN HRS)	REMARKS
4.	Database Diagram	The tables are defined and created in the appropriate databases.	10	Use SRS to know about database requirements and apply normalization.
5.	User interface Design	The user interface is designed for the customer needs for the selected language.	4	It is recommended to design GUI and get verification from user.
6.	Implementation	The functional requirements are coded and linked with GUI.	2 weeks	Do the verification with DFD and check coding standards.
7.	Testing	Individual modules are tested to verify their functionality, integration and validation test is performed.	4	Prepare the test cases to pursue system testing.
8.	Documentation and help manual	The help manual is prepared in English.	24	Integrate the manual with the system. The manual should be in easy language.

**4.3. REQUIREMENT DEFINITION DOCUMENT:****Table 4.3.1 APPLICATION ADMINISTRATOR:**

<b>S.NO</b>	<b>REQUIREMENTS</b>	<b>ESSENTIAL/ DESIRABLE</b>	<b>DESCRIPTION</b>	<b>REMARKS</b>
FRS01	Application Administrator Login	Essential	A login box should appear asking for username and password.	This feature has been provided for security purpose.
FRS02	Create Administrators	Essential	The data such as name, department, designation, password are required.	This option enables the administrator to create more administrators for the organization.
FRS03	License Management	Essential	The details such as license type, validity, amount and the number of employees of the organization are maintained and updated whenever necessary.	This feature is used by the administrator for managing the licenses.
FRS04	License Requested Companies	Essential	The information such as company name, address, contact number, number of employees, turn over of the company that has requested for license are displayed.	This enables the administrator to check for the companies that have requested for License.

S.NO	REQUIREMENTS	ESSENTIAL/ DESIRABLE	DESCRIPTION	REMARKS
FRS05	License Allocation	Essential	The license type is allocated based on the amount paid and the number of employees in the company.	This enables the administrator to allocate license to the company that has requested.
FRS06	License Cancellation	Essential	The company name is chosen and its allocated license is cancelled.	This enables the administrator to cancel license to the company that has been allocated.

**Table 4.3.2 ORGANISATION ADMINISTRATOR:**

S.NO	REQUIREMENTS	ESSENTIAL/ DESIRABLE	DESCRIPTION	REMARKS
FRS01	Organization Administrator Login	Essential	A login box should appear asking for username and password.	This feature has been provided for security purpose.
FRS02	Create Administrators	Essential	The data such as name, department, designation and password are required.	This option enables the administrator to create more administrators for the organization.
FRS03	Department Management	Essential	The details such as department name, head and number of employees are added and updated whenever necessary.	This option enables the administrator to create departments and manage them.
FRS04	Designation Management	Essential	The details such as department name, designation and corresponding skills are added and updated whenever necessary.	This feature enables the administrator to create designations and manage them.
FRS05	Resource Management	Essential	The data such as personal details, educational qualification, work experience and skills are added and updated whenever necessary.	This option enables the administrator to create resources for the organization and manage them.

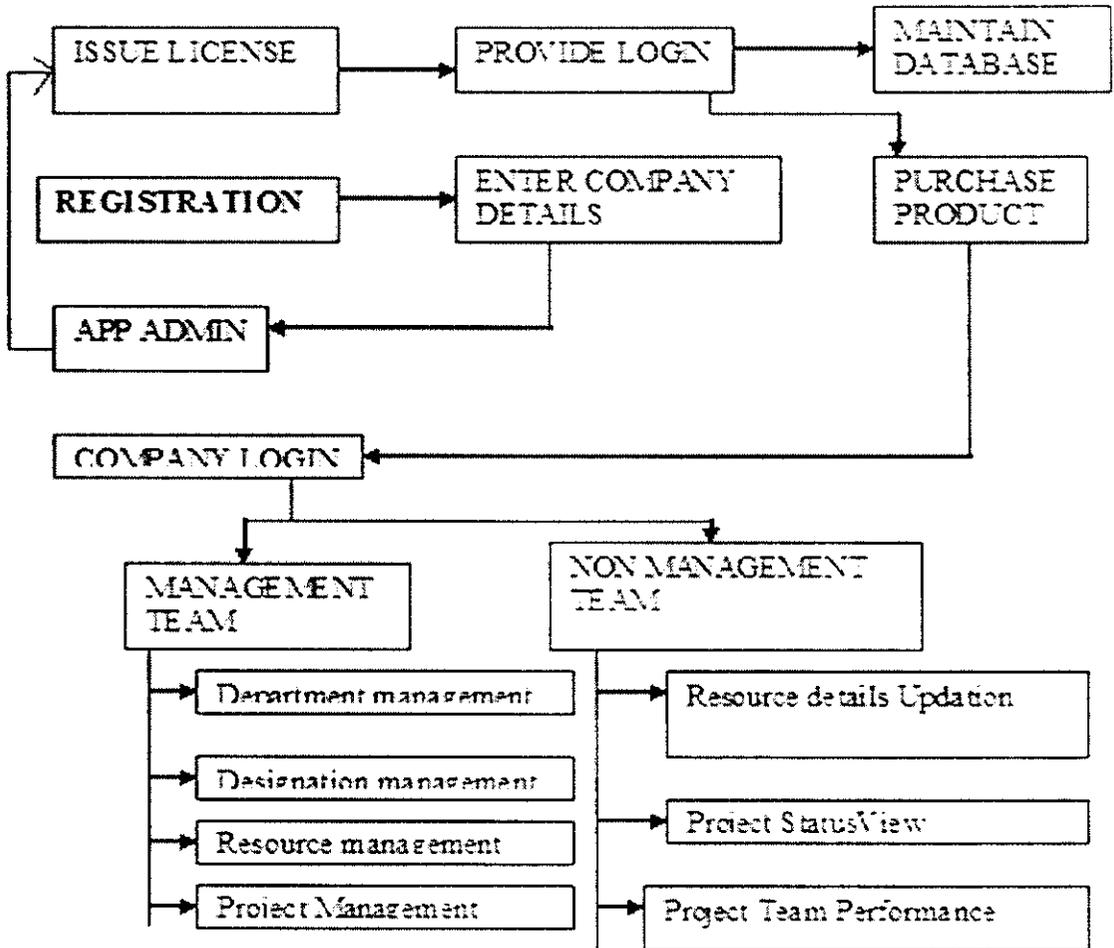
S.NO	REQUIREMENTS	ESSENTIAL/ DESIRABLE	DESCRIPTION	REMARKS
FRS06	Project Management	Essential	The details such as project name, head, technology involved, duration and team members are added and updated whenever necessary.	This feature enables the administrator to create and manage the projects.
FRS07	Update Company Details	Essential	The details of the company such contact number, mail id, address, turn over and number of employees can be updated.	This option enables the administrator to update the company details.

**Table 4.3.3 ORGANIZATION END USER:**

<b>S.NO</b>	<b>REQUIREMENTS</b>	<b>ESSENTIAL/ DESIRABLE</b>	<b>DESCRIPTION</b>	<b>REMARKS</b>
FRS01	End User Login	Essential	A login box should appear asking for username and password.	This feature has been provided for security purpose.
FRS02	Update Personal details	Essential	The personal details like contact number, address and mail id can be updated.	This option enables the end user to update the personal details.
FRS03	Update Skill Set	Essential	The skills of the resource e can be updated periodically.	This option enables the end user to update the skills.
FRS04	Project Status View	Essential	The project details such as the project the end user is involved currently, the team members can be viewed.	This option enables the end user to view the project status.

#### 4 OVERALL ARCHITECTURE:

Fig 4.4.1 Overall Architecture of Resource Pool Management



## **4.5 MODULE DESCRIPTION:**

The project “Resource Pool Management” has been spilt into three modules based on the users. The people who use this software include

- 4.5.1 Application Administrator
- 4.5.2 Organization Administrator
- 4.5.3 Organization End User

Each of the modules and its functionalities are explained in detail.

### **4.5.1 APPLICATION ADMINISTRATOR:**

Application administrators are those people who own the software. They create the software and deploy it in the cloud for others to use. They are the one who manage and maintain the sales of this software. So once purchased, any kind of organization can make use of this software according to their requirements. The entire database of the organization is maintained by the Application Administrator. Hence the responsibilities of the Application Administrator are the functionalities of this module. The functionalities are:

- 4.5.1.1 Administrator Login
- 4.5.1.2 Administrator Management
  - Create Administrators
  - Delete Administrators
- 4.5.1.3 License Management
  - Add License Type
  - Edit License Type
- 4.5.1.4 View License Requested Companies
- 4.5.1.5 License Allocation
- 4.5.1.6 License Cancellation

#### 4.5.1.1 **Administrator Login:**

The web page has got a link to Application Administrator Login which displays the login form. Here the Application Administrator can give the user name and password. The system then validates the login details and allows the authorised users to login. Then the administrator can choose any of the functionalities.

#### 4.5.1.2 **Administrator Management:**

The Application Administrators can give privilege to other people and make them administrator. This is done by choosing the resource name, department, designation and authorising them as one of the administrator by setting the status flag active. Now the resource becomes an administrator and has the rights to manage the software.

The Application Administrators can deny the privilege given to an administrator. This is done by choosing the administrator name and setting the status flag to inactive. Now the resource is no more an administrator and has no privileges.

#### 4.5.1.3 **License Management:**

The organizations that request for license are allotted with a particular license. Thus in license management, the administrator manages the various license types. Each license type has the details like the license name, its amount, validity in years and for how many number of employees this license is applicable. So the administrator can add a license type by giving all these details.

The administrator can also edit the license details. This is done by choosing the license type and then all the corresponding details are displayed. Now the administrator can edit any of these details and these are updated in the database.

#### 4.5.1.4 **View License Requested Companies:**

The administrator can view the list of organizations who have requested for license. Here the organization name and the number of employees working are displayed.

#### 4.5.1.5 **License Allocation:**

From the list of organizations who have requested for license, the administrator can choose the organization which he thinks is eligible. All the available license types are displayed and the administrator chooses an appropriate license type and allocates the license to the company with this license. So the validity of the organization to use the software is decided.

#### 4.5.1.6 **License Cancellation:**

The license allocated to a organisation can be cancelled at any time if the organisation is found to be fake or illegal. So when cancelling the license the flag is set to deactivated and the organization can no more use the software.

#### 4.5.2 **ORGANIZATION ADMINISTRATOR:**

Organization Administrators are the administrators of the organization who purchase the software which is deployed in the cloud. They register the company through the website in the cloud, and then the Application Administrator allocates the license to the organization. Now the software is for the organisation and they are permitted to use it till the validity expires. So the Organization Administrator administrates the software in the organization. The functionalities of the Organization Administrator include:

##### 4.5.2.1 Administrator Login

##### 4.5.2.2 Administrator Management

- Create Administrators
- Delete Administrators

##### 4.5.2.3 Department Management

- Add
- Update

##### 4.5.2.4 Designation Management

- Add
- Update

#### 4.5.2.5 Skill Set Management

- Add
- Delete

#### 4.5.2.6 Resource Management

- Add
- Update
- Delete

#### 4.5.2.7 Project Management

- Add
- Update

#### 4.5.2.8 Update Company Details

##### 4.5.2.1 **Administrator Login:**

The web page has got a link to Organization Administrator Login which displays the Login form. Here the Organization Administrator can give the user name and password. The system then validates the login details and allows the authorised users to login. Then the administrator can choose any of the functionalities.

##### 4.5.2.2 **Administrator Management:**

The Organization Administrators can give privilege to other people and make them as administrator. This is done by choosing the resource name, department, designation and authorising them as one of the administrator by setting the status flag active. Now the resource becomes an administrator and has the rights to manage the software.

The Organization Administrators can deny the privilege given to an administrator. This is done by choosing the administrator name and setting the status flag to inactive. Now the resource is no more an administrator and has no privileges.

#### 4.5.2.3 **Department Management:**

The Organization Administrator manages the various departments in the organization. The details for each department include department name, department head, and number of employees in the department. So whenever the administrator creates a new department all the above details are given and they are updated in the database.

The administrator has the option to update the details of a department. This is done by selecting the department for which the details are to be updated. All the corresponding details are displayed and the administrator can make any desired changes which are updated in the database.

#### 4.5.2.4 **Designation Management:**

The Organization Administrator manages the various designations in the organization. The details for each department include designation name, the department under which it falls and the required skill set for the designation which comprises of technology category and technology chosen from the basic skill set. So whenever the administrator creates a new designation all the above details are given and they are updated in the database.

The administrator has the option to update the details of a designation. This is done by selecting the designation for which the details are to be updated. All the corresponding details are displayed and the administrator can make any desired changes which are updated in the database. The updates can either be adding or deleting a skill set to the designation.

#### 4.5.2.5 **Skill Set Management:**

The Organization Administrator manages the skill set for the entire organization. The skill set comprises of the data like the category and the technology. So whenever the administrator creates a new skill set all the above details are given and they are updated in the database.

The administrator has the option to delete a skill set from the database. This is done by selecting the category and all the corresponding technologies are displayed. When both these details are selected a skill set can be deleted from the database.

#### 4.5.2.6 **Resource Management:**

The Organization Administrator manages the details of all the resources working in the organization. The resource details comprise of the personal details, education qualification, work experience, and the skill set. So whenever the administrator creates a new resource all the above details are given along with the department and the designation in which the resource is allotted. These are added in the database and the flag is set active.

The administrator has the option to update the details of a resource. This is done by selecting the resource whose details are to be updated. All the corresponding details are displayed and the administrator can make any desired changes which are updated in the database.

The administrator has the option to delete a resource. This is when the resource leaves the organization. When the resource name is selected the resource can be deleted. Once deleted, the flag is set to inactive and the record is not totally deleted.

#### 4.5.2.7 **Project Management:**

The Organization Administrator manages the details of the projects. This includes the project title, duration, domain, technology. When ever a project is created team members are allotted by searching for the resources who matches the project requirements like the domain, technology and experience. All the details are added in the database.

The administrator has the option to update the details of a project. This is done by selecting the project whose details are to be updated. All the corresponding details are displayed and the administrator can make any desired changes which are updated in the database.

### 4.5.2.8 **Update Company Details:**

The administrator has the option to update the company's details. Whenever the option is chosen, all the details that can be updated are displayed. The administrator can make any desired changes which are updated in the database.

### 4.5.3 **ORGANIZATION END USER:**

Organization End Users are the end users in the organization which has purchased the software. They have the following functionalities:

4.5.3.1 End User Login

4.5.3.2 Update personal details

4.5.3.3 Update skill set

4.5.3.4 View project details.

#### 4.5.3.1 **End User Login:**

The End User can login by giving the user name and password. The system then validates the login details and allows the authorised users to login. Then the end user can choose any of the functionalities.

#### 4.5.3.2 **Update personal details:**

When this link is chosen, the personal details of the end user which can be updated are displayed. The end user can make the necessary changes which are then updated in the database.

#### 4.5.3.3 **Update skill set:**

When this link is chosen, the skill set of the end user which can be updated are displayed. The end user can make the necessary changes which are then updated in the database.

#### 4.5.3.4 **View project details:**

## 4.6 DATA FLOW DIAGRAM:

The Data Flow Diagram (DFD) is a tool used for structured design. DFD shows the flow of data from external entities into the system, how the data move from one process to another as well as its logical storage.

A Data Flow Diagram is a process-oriented graphical representation of an application system. It is a picture of the movement of the data between the external entities and the processes and the data stores within a system. The Data Flow Diagram is used to specify the path through which the data flows.

### 4.6.1 BENEFITS OF DATA FLOW DIAGRAM:

- Provides a pictorial, non- technical representation
- Easy to understand
- Quick to produce and easy to amend
- Uses limited number of symbols with specific meanings
- Uses a simple top down expansion

Fig 4.6.1 LEVEL 0 DFD - RESOURCE POOL MANAGEMENT:



Fig 4.6.2 LEVEL 1 DFD – APPLICATION ADMINISTRATOR

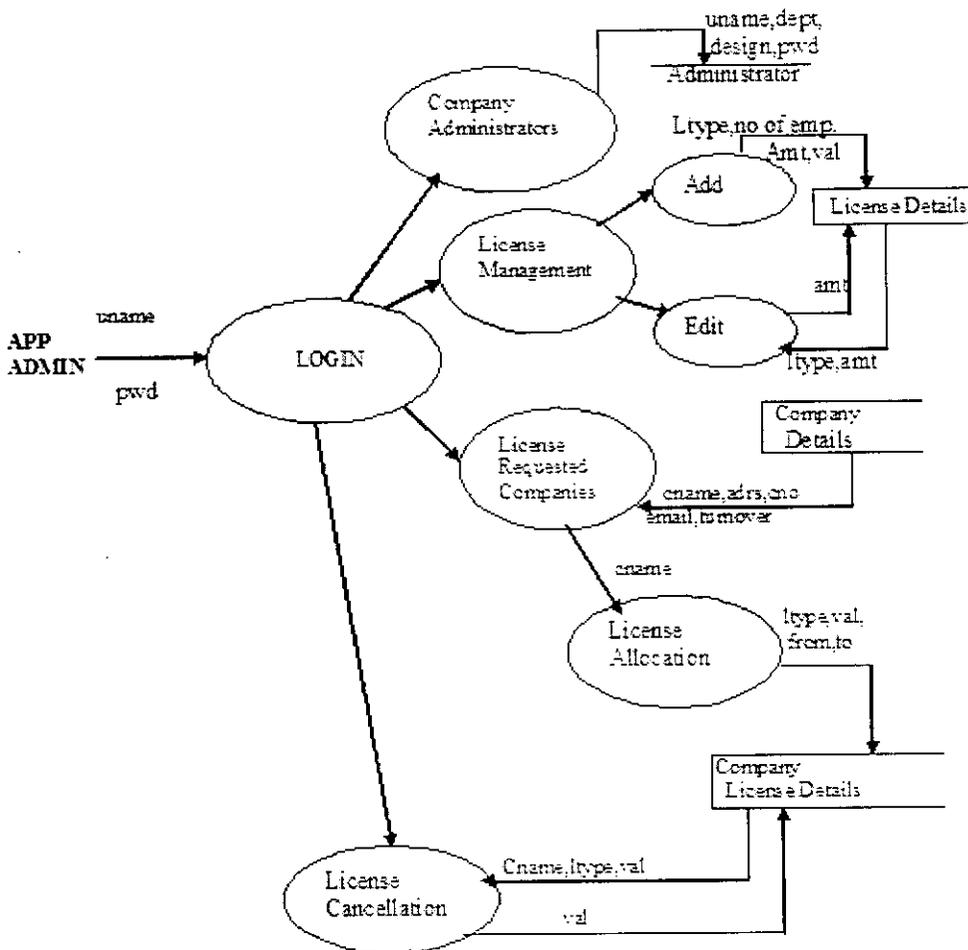


Fig 4.6.3 LEVEL 1 DFD-ORGANIZATION ADMINISTRATOR

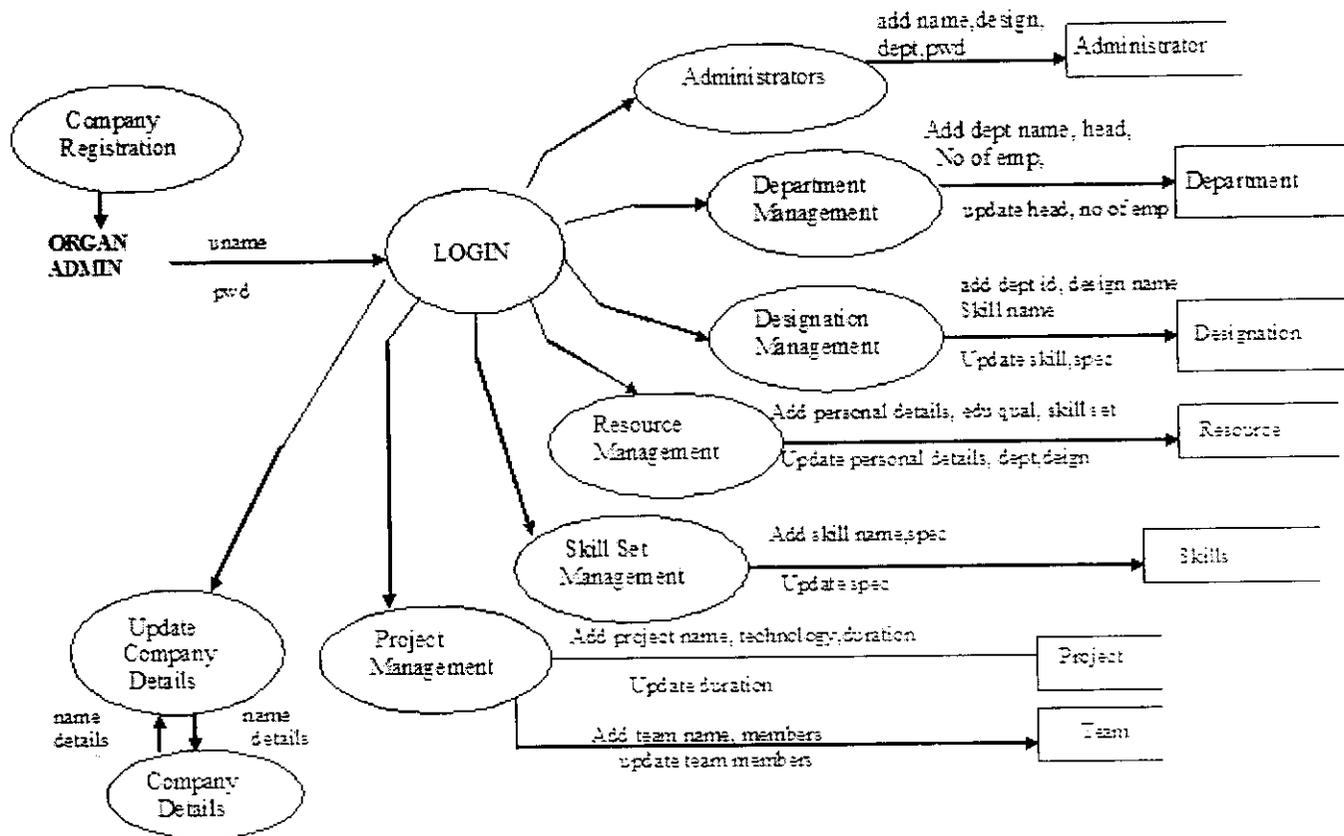


Fig 4.6.4 LEVEL 1 DFD – ORGANISATION END USER:

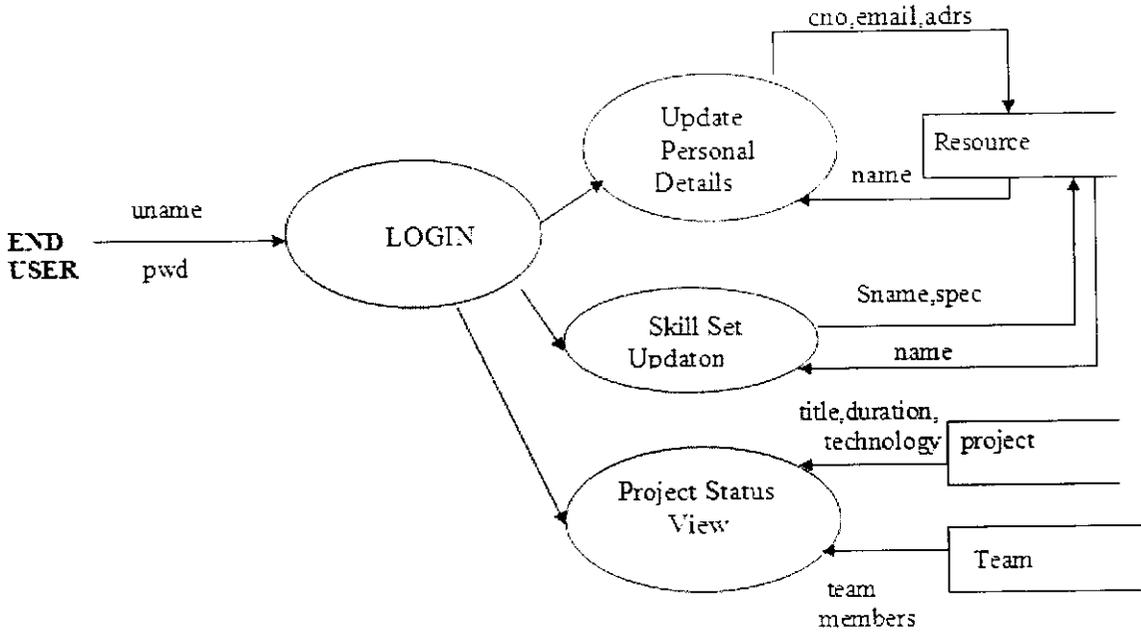


Fig 4.6.5 LEVEL 2 DFD – RESOUREC POOL MANAGEMENT

APPLICATION ADMINISTRATOR:

Fig 4.6.5.1 Login:

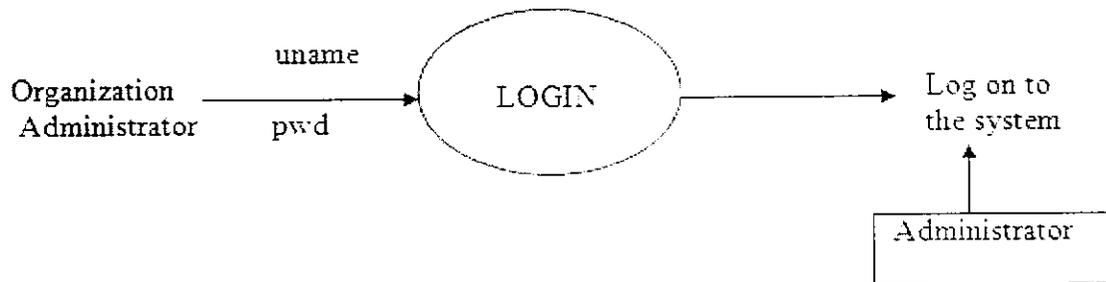
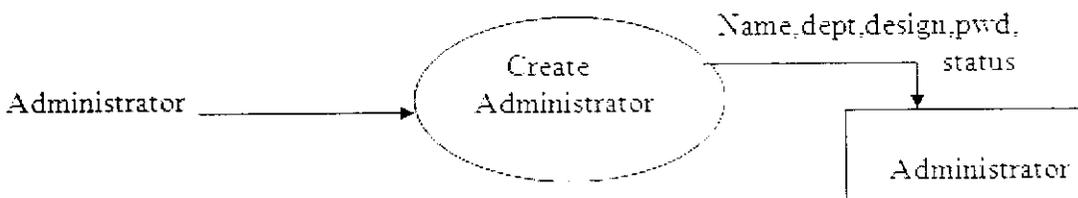
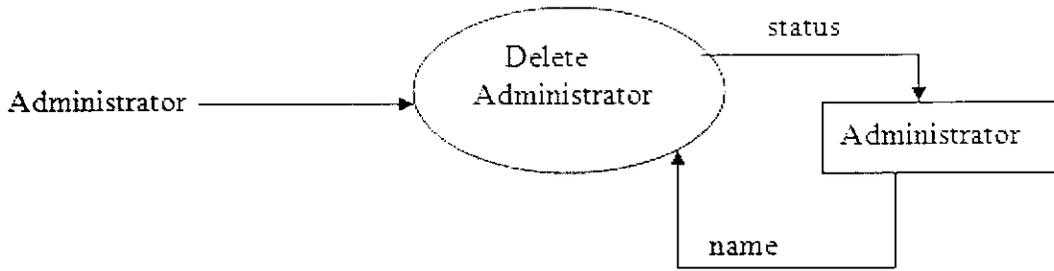
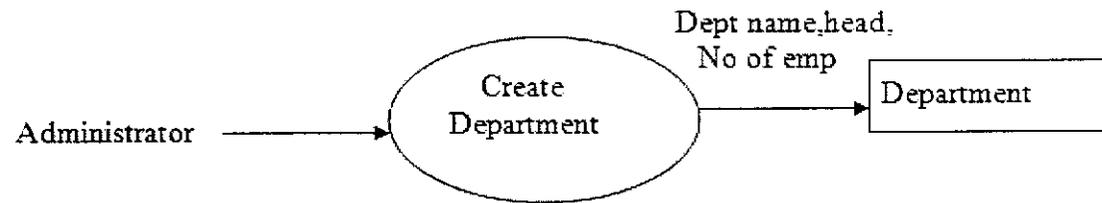
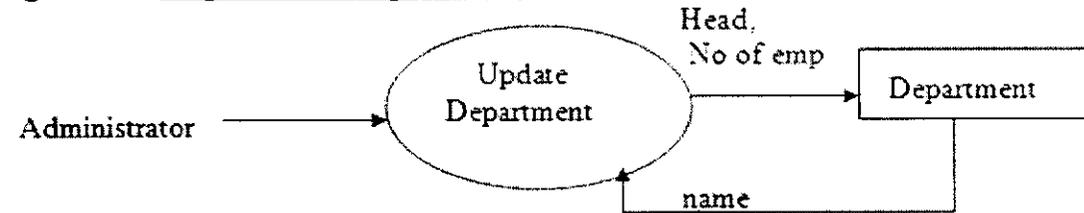
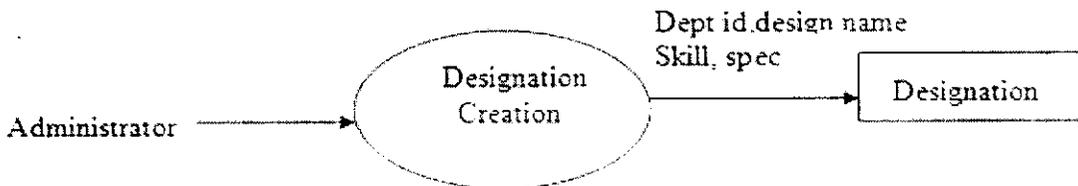
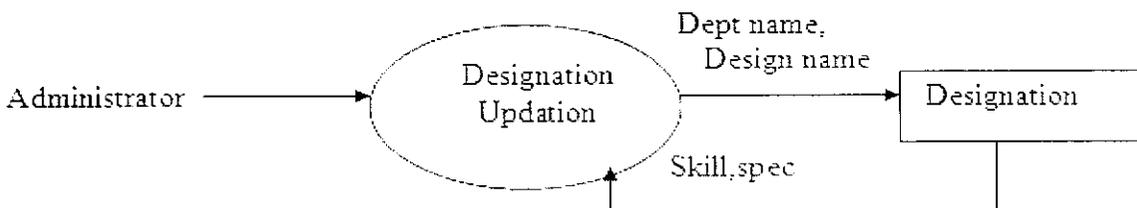
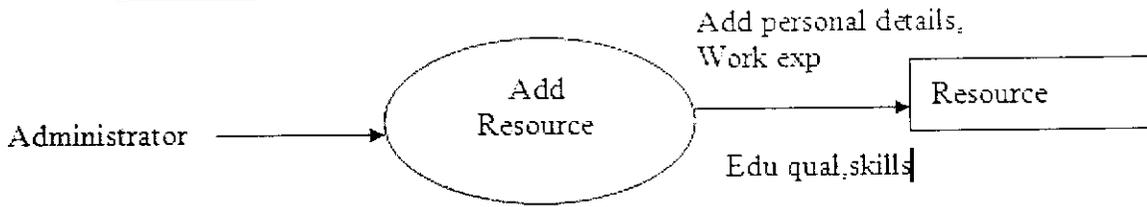
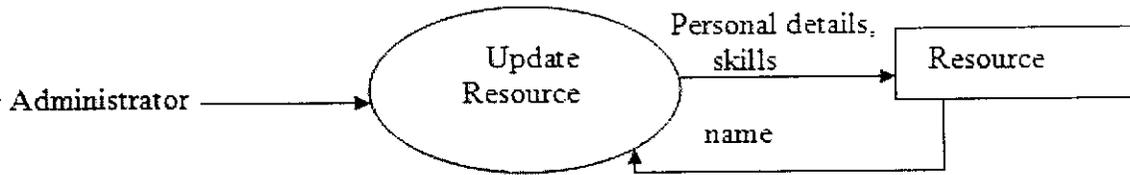
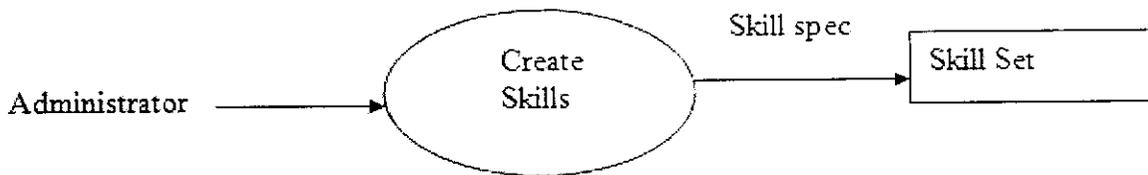
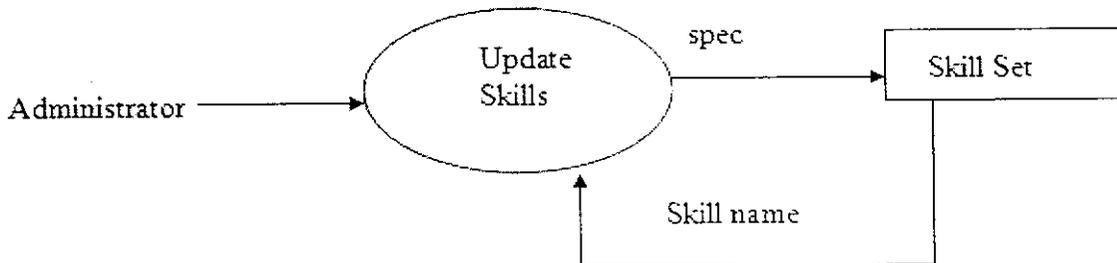
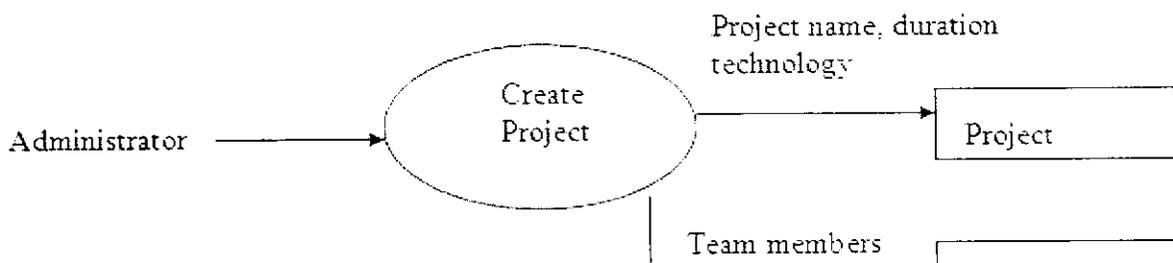


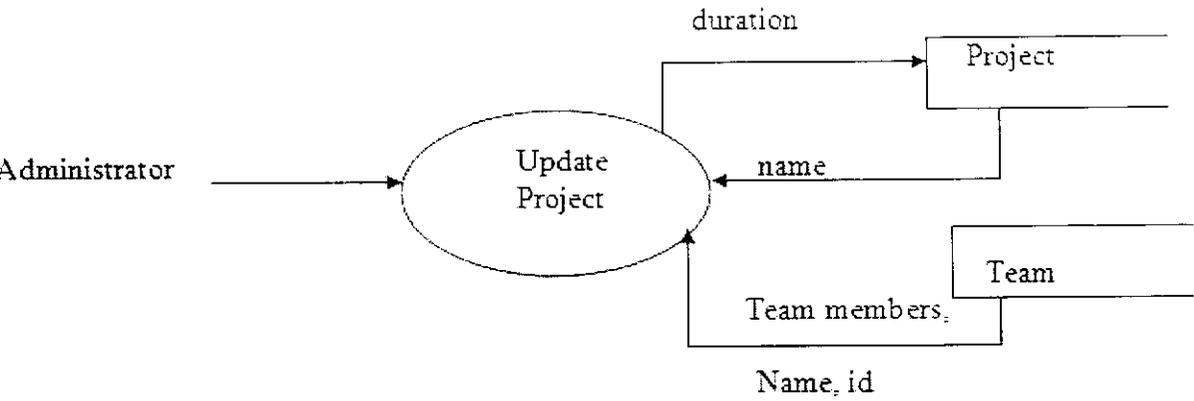
Fig 4.6.5.2 Create Administrator:



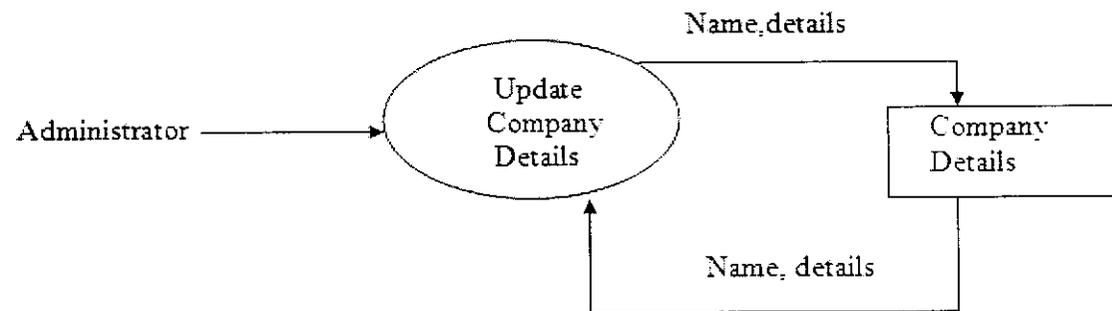
**Fig 4.6.5.3 Delete Administrator:****Fig 4.6.5.4 Department Creation:****Fig 4.6.5.5 Department Updation:****Fig 4.6.5.6 Designation Creation:****Fig 4.6.5.7 Designation Updation:**

**Fig 4.6.5.8 Resource Creation:****Fig 4.6.5.9 Resource Update:****Fig 4.6.5.10 Skill Set Creation:****Fig 4.6.5.11 Skill Set Update:****Fig 4.6.5.12 Project Creation:**

**Fig 4.6.5.13 Project Updation:**

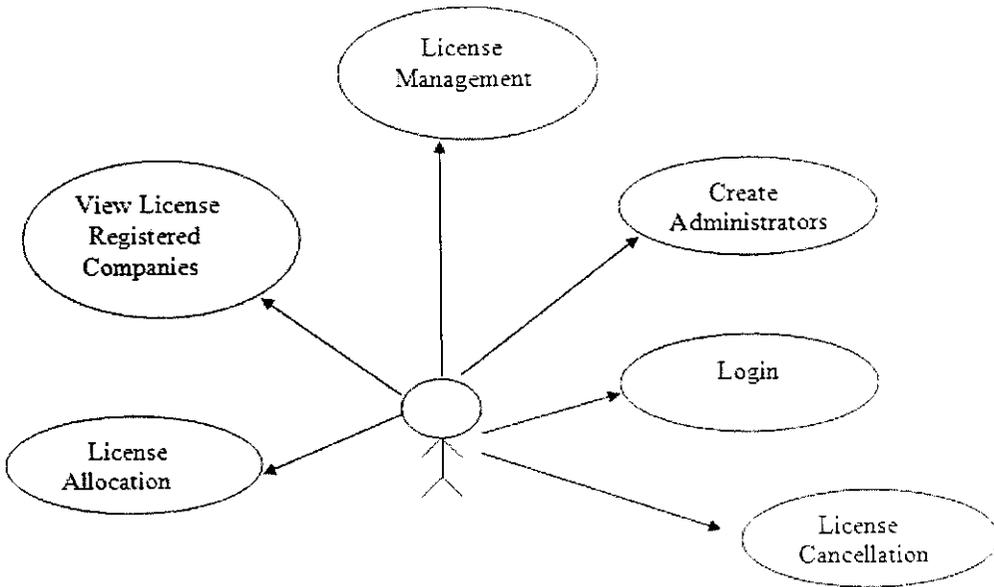


**Fig 4.6.5.14 Update Company Details:**

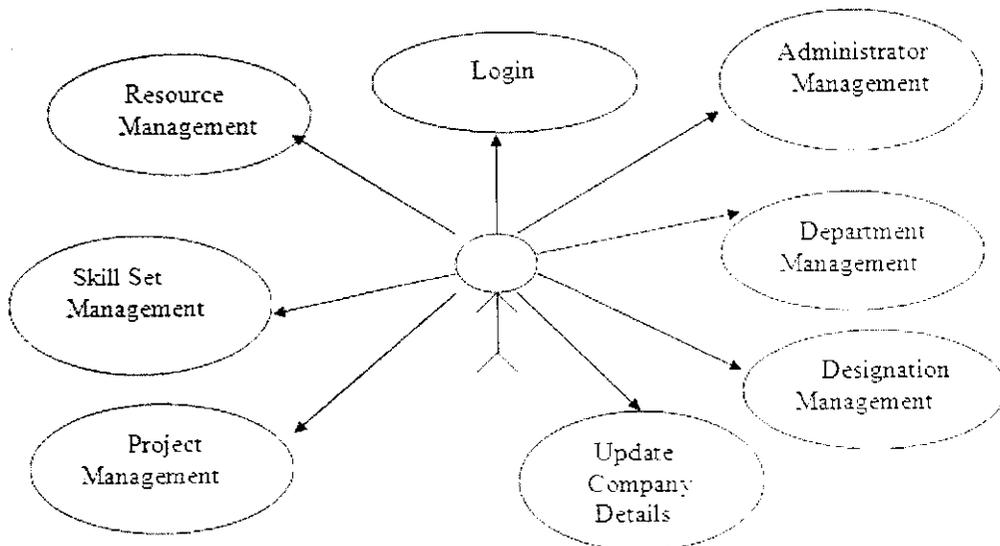


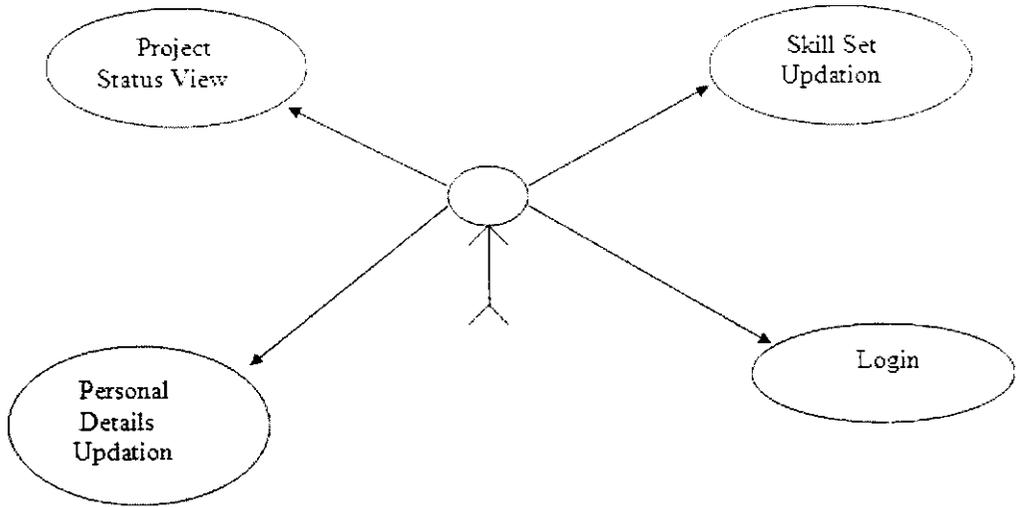
## 7. USECASE DIAGRAM:

**Fig 4.7.1 Application Administrator**



**Fig 4.7.2 Organization administrator:**

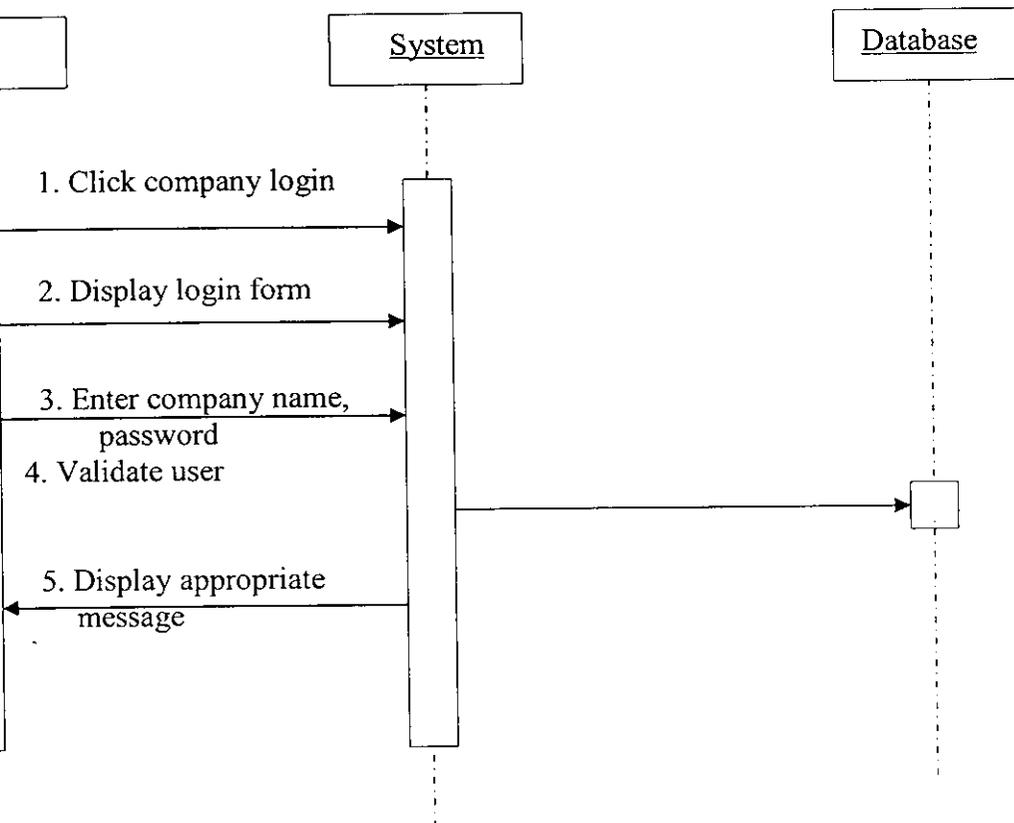


**Fig 4.7.3 End User:**

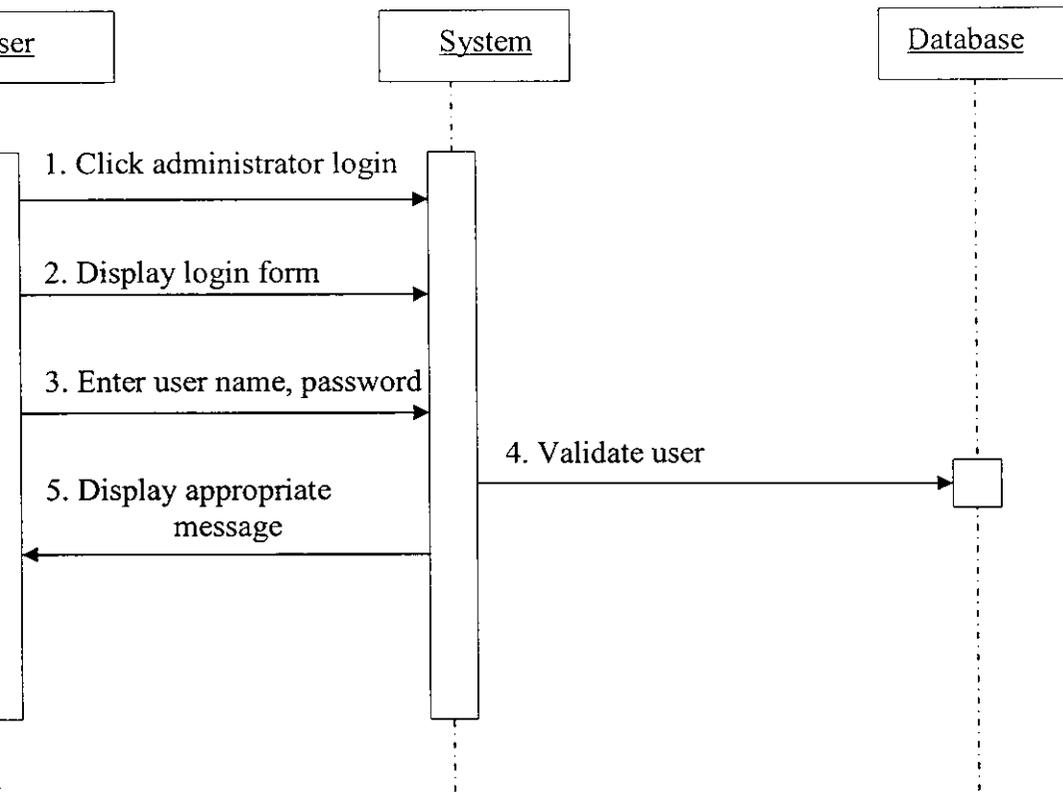
## 4.8 SEQUENCE DIAGRAM :

A sequence diagram is a form of interaction diagram which shows objects as lifelines running down the page, with their interactions over time represented as messages drawn as arrows from the source lifeline. Sequence diagrams are good at showing which objects communicate with which other objects; and what messages trigger those communications.

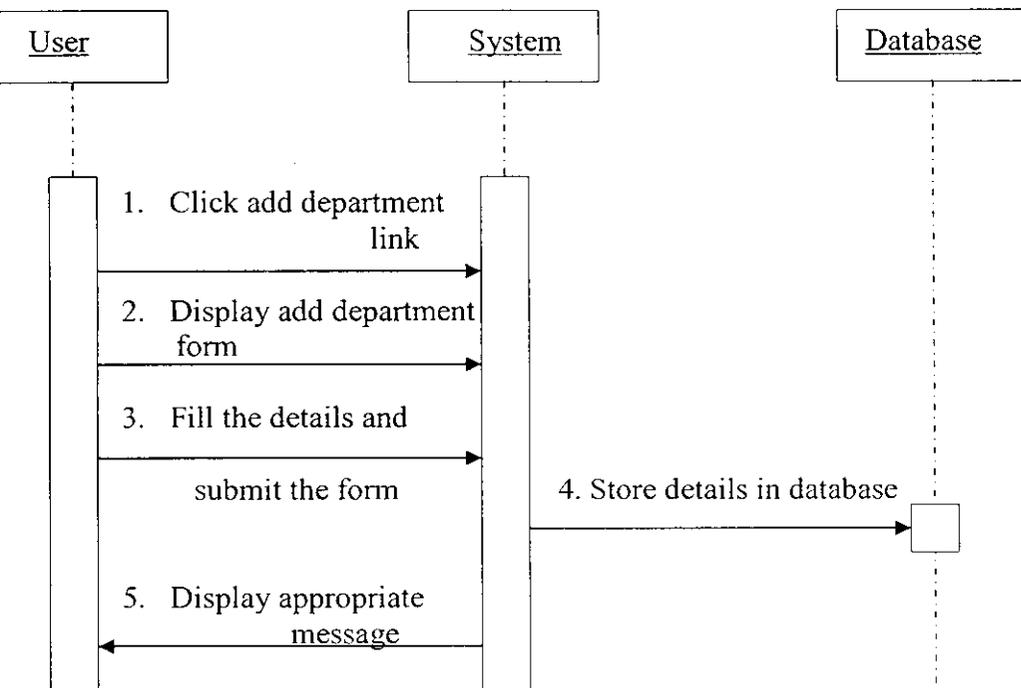
### 4.8.1 Company Login:



**Fig 4.8.2 Administrator Login:**



**Fig 4.8.3 Department Management-Add**



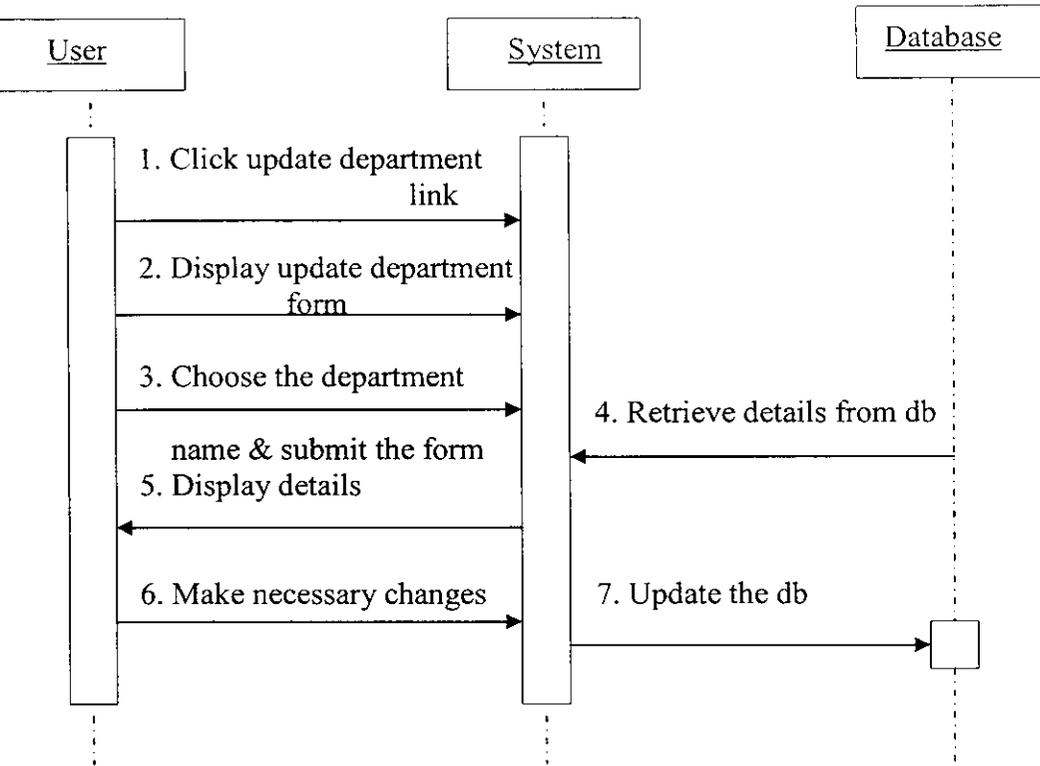
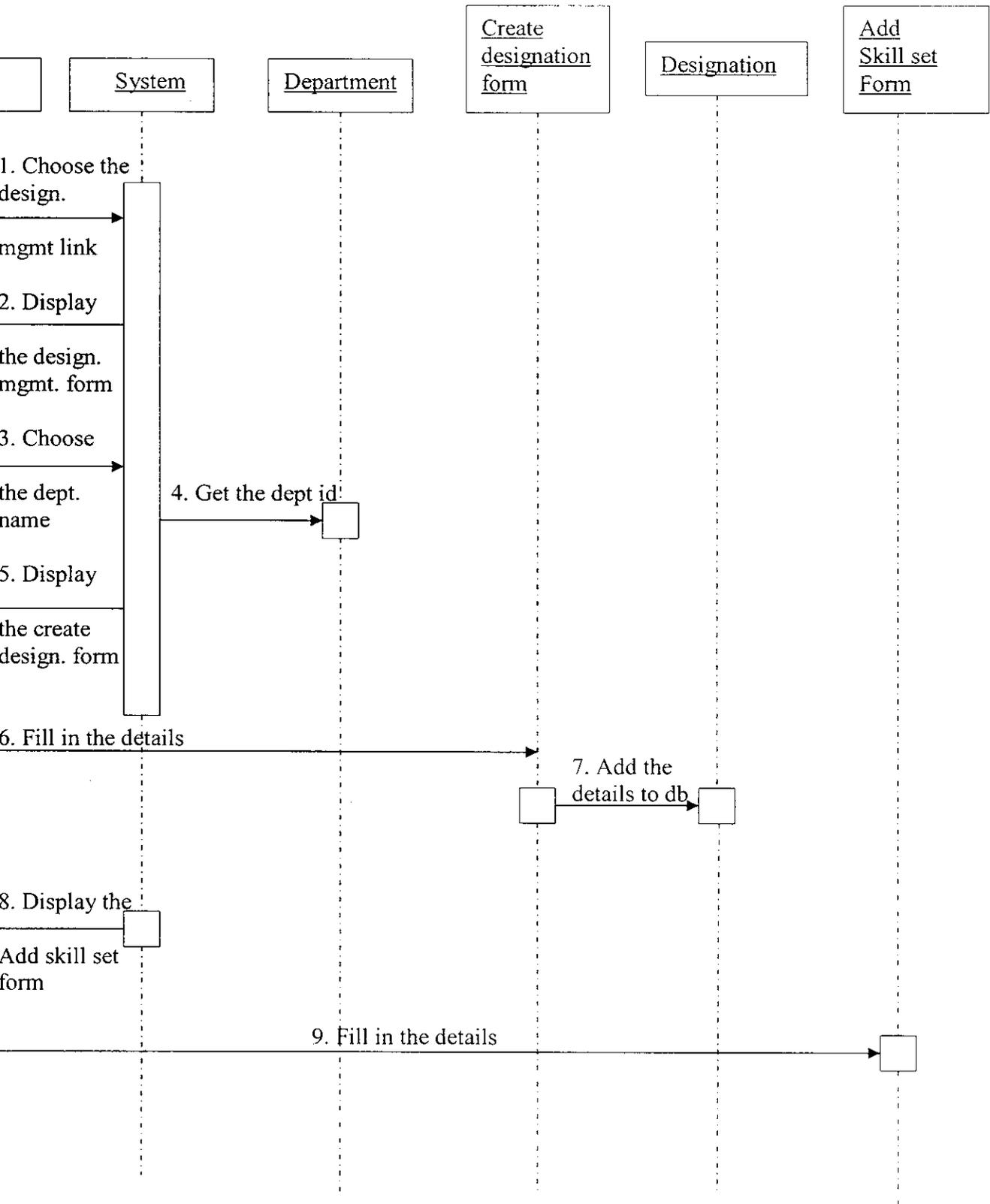
**Fig 4.8.4 Department Management-Update**

Fig 4.8.5 Designation Management-Add

**Fig 4.8.6 Designation Management-Update**

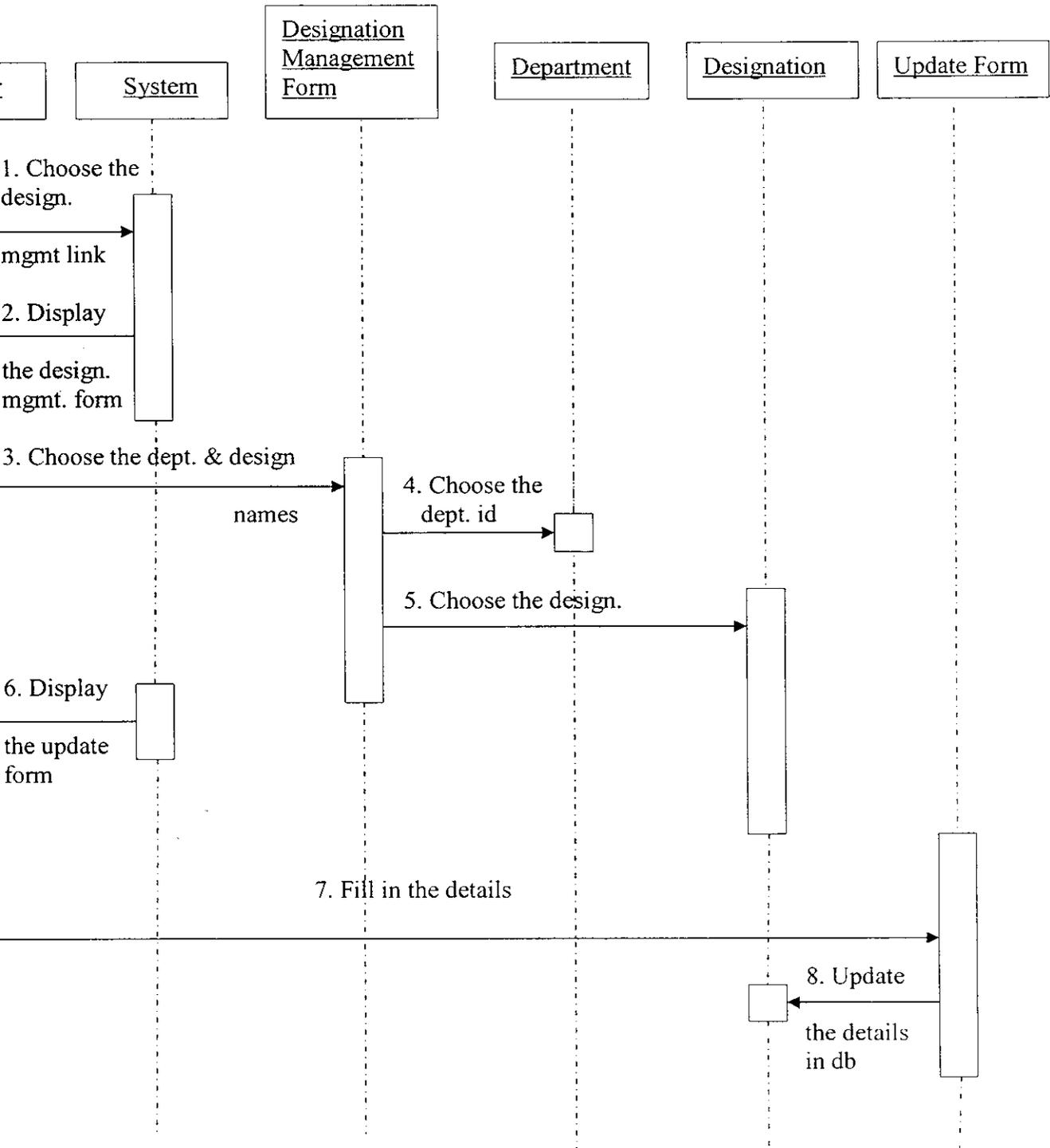
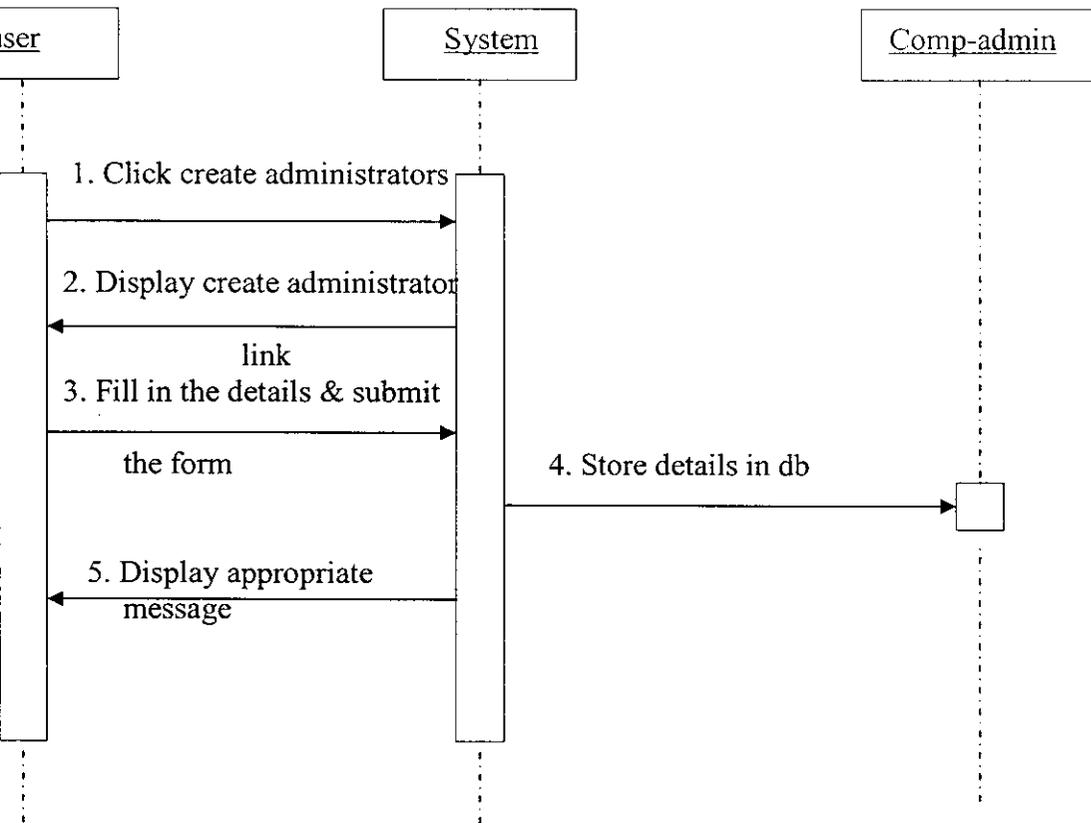
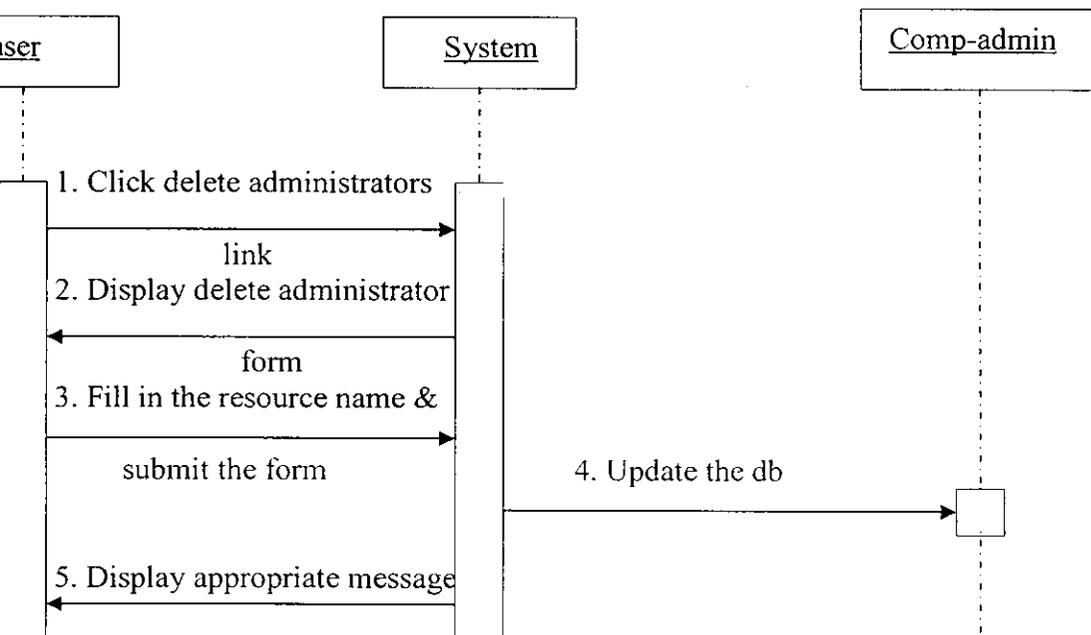
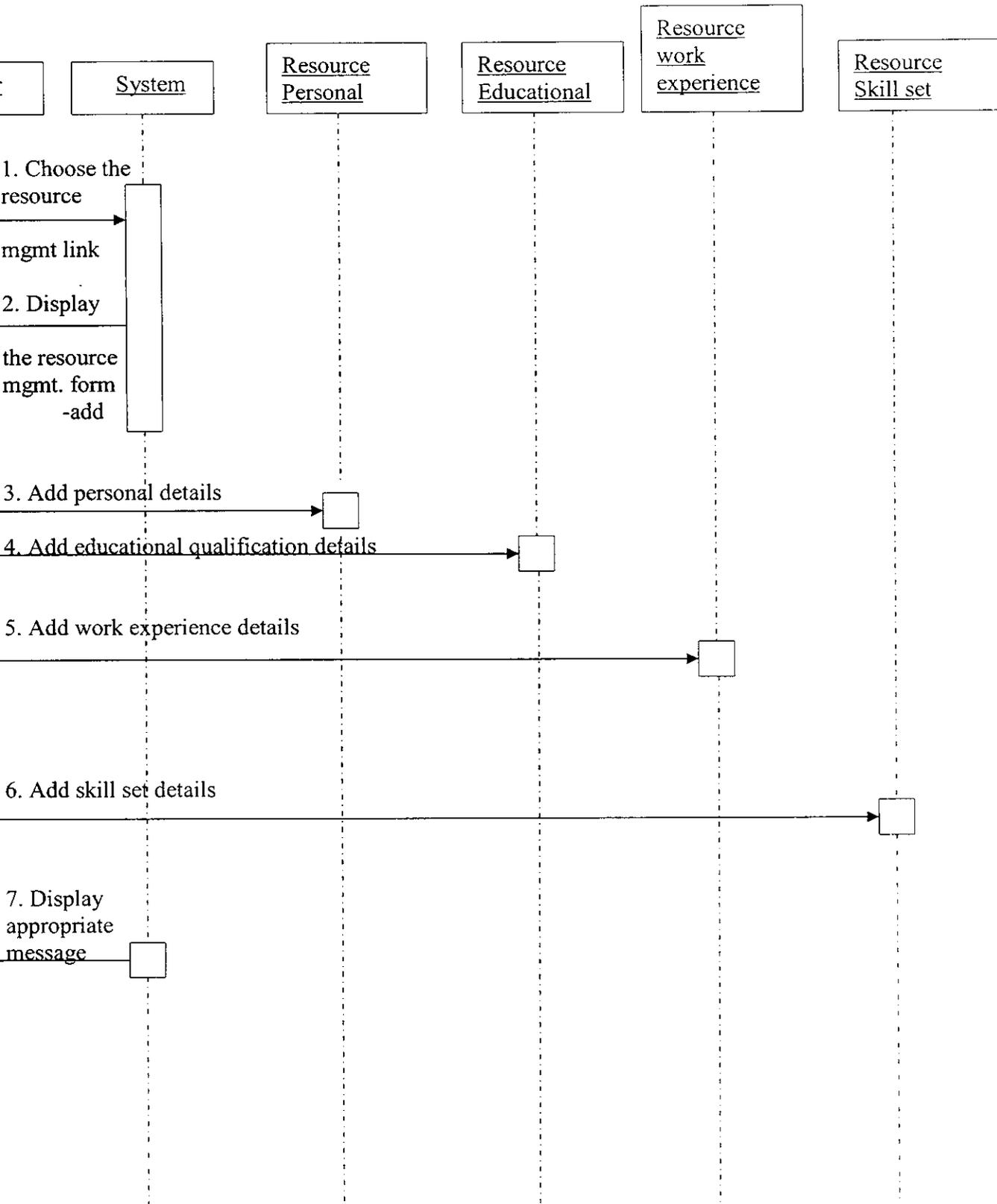
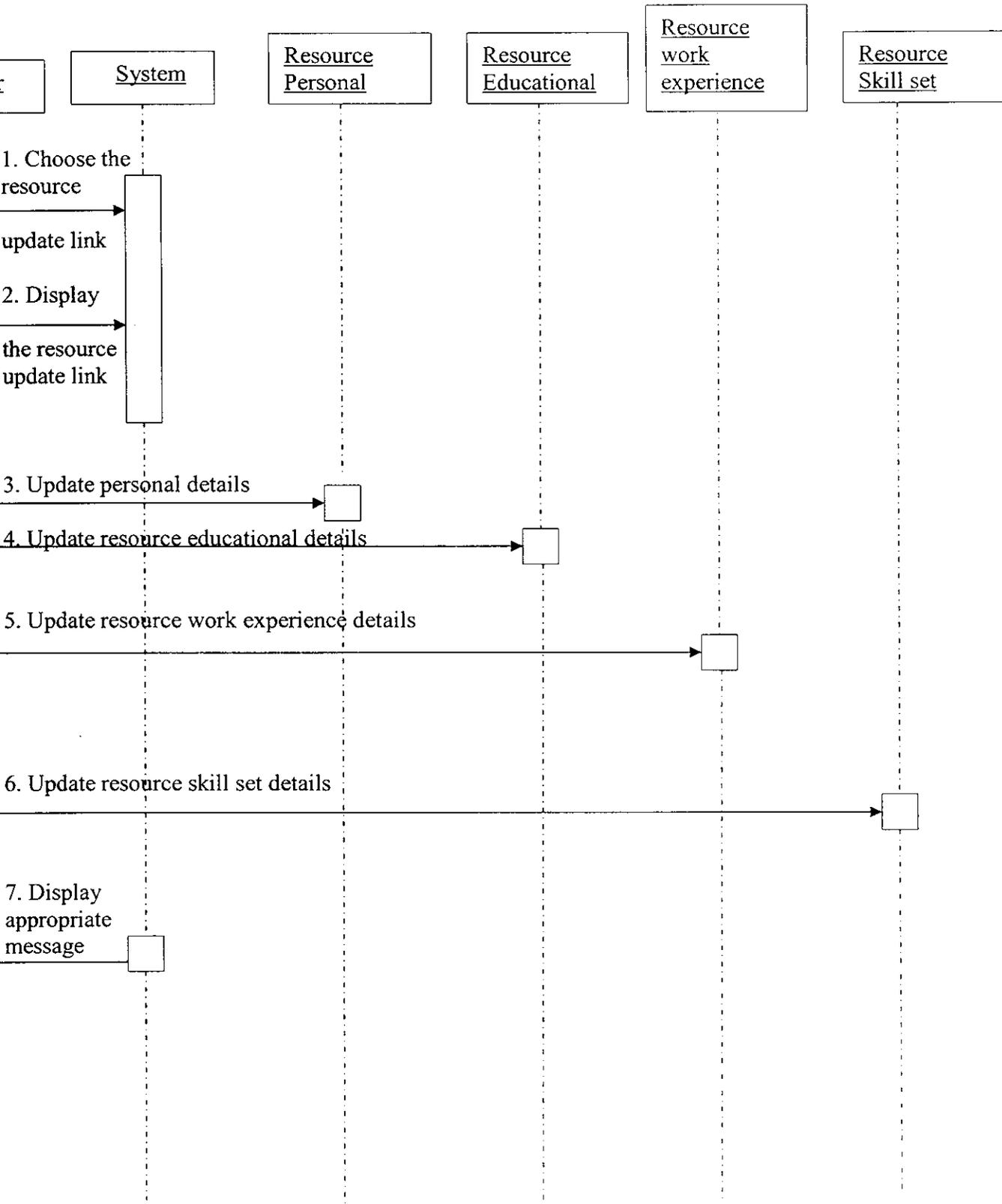


Fig 4.8.7 Create AdministratorsFig 4.8.8 Delete Administrators

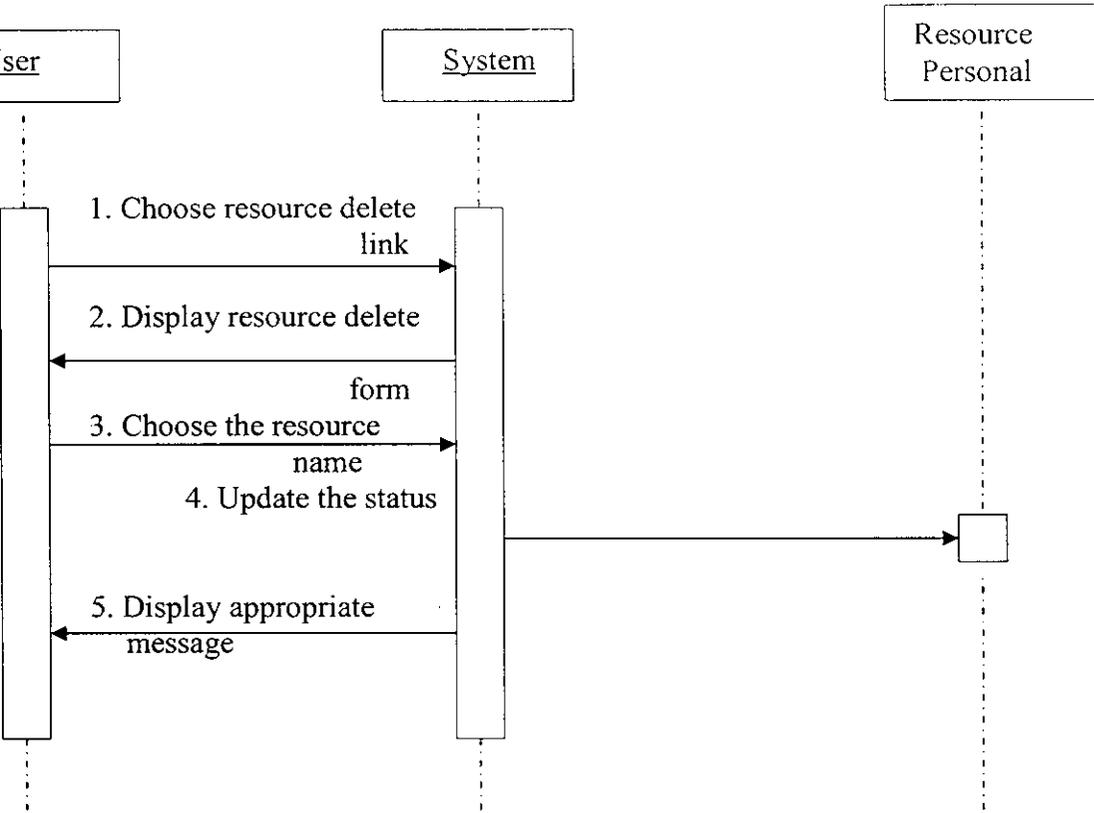
**Fig 4.8.9 Resource Management-Add**



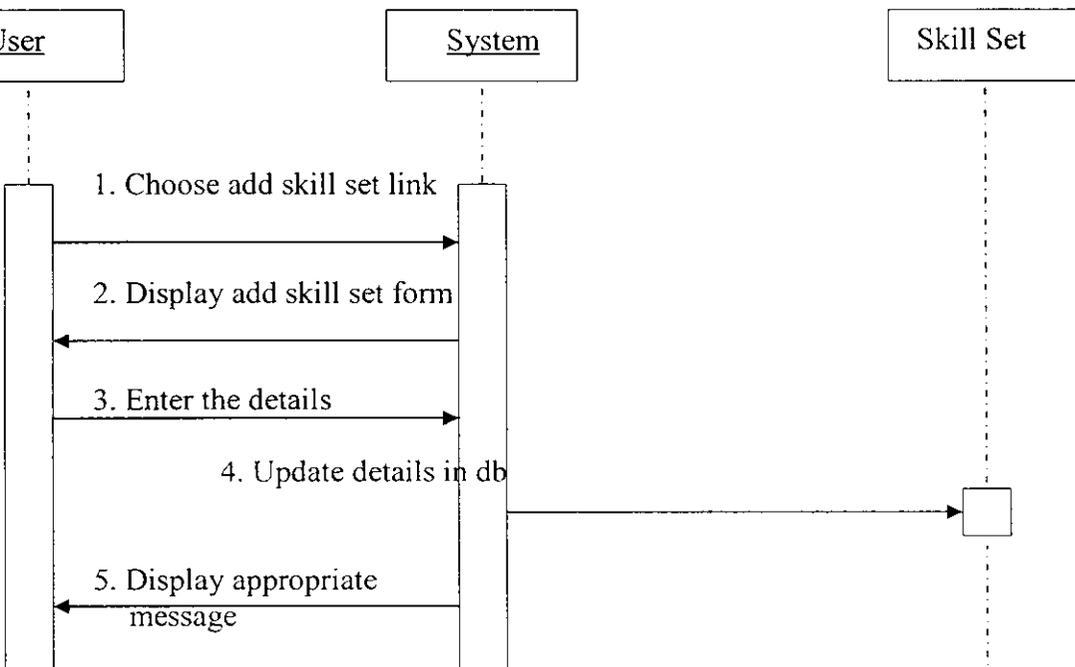
**Fig 4.8.10 Resource Management-Update**



**Fig 4.8.11 Resource Management-Delete**



**Fig 4.8.12 Skill Set Management-Add**



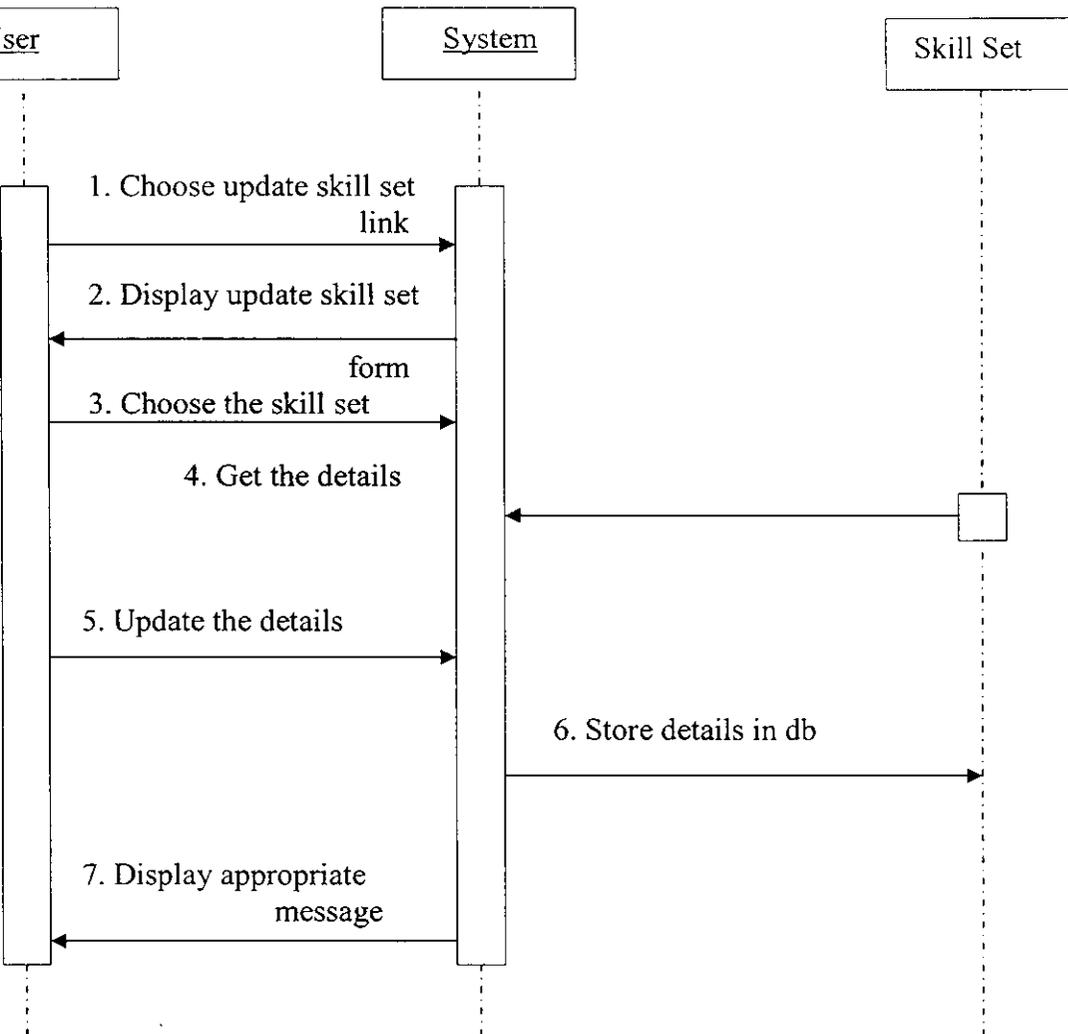
**Fig 4.8.13 Skill Set Management-Update**

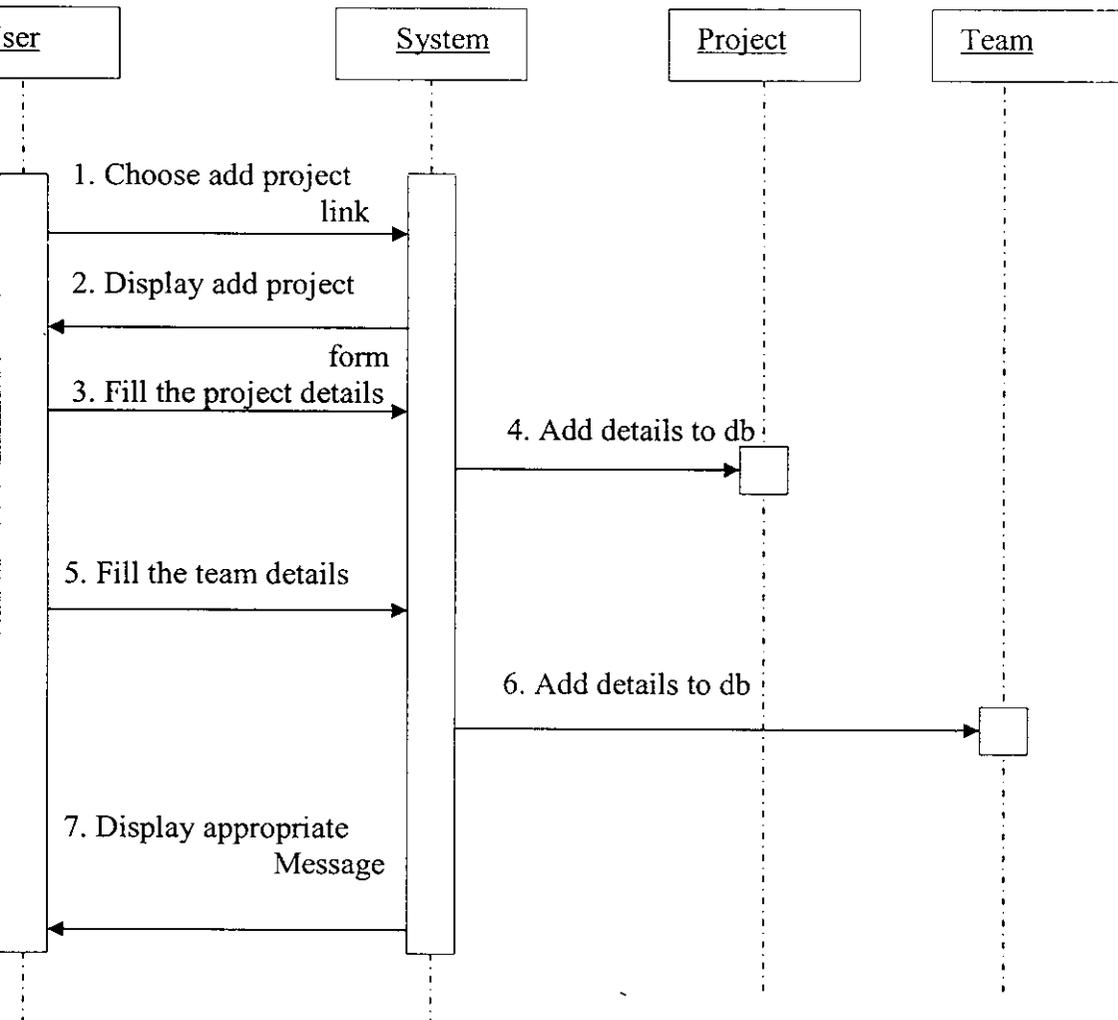
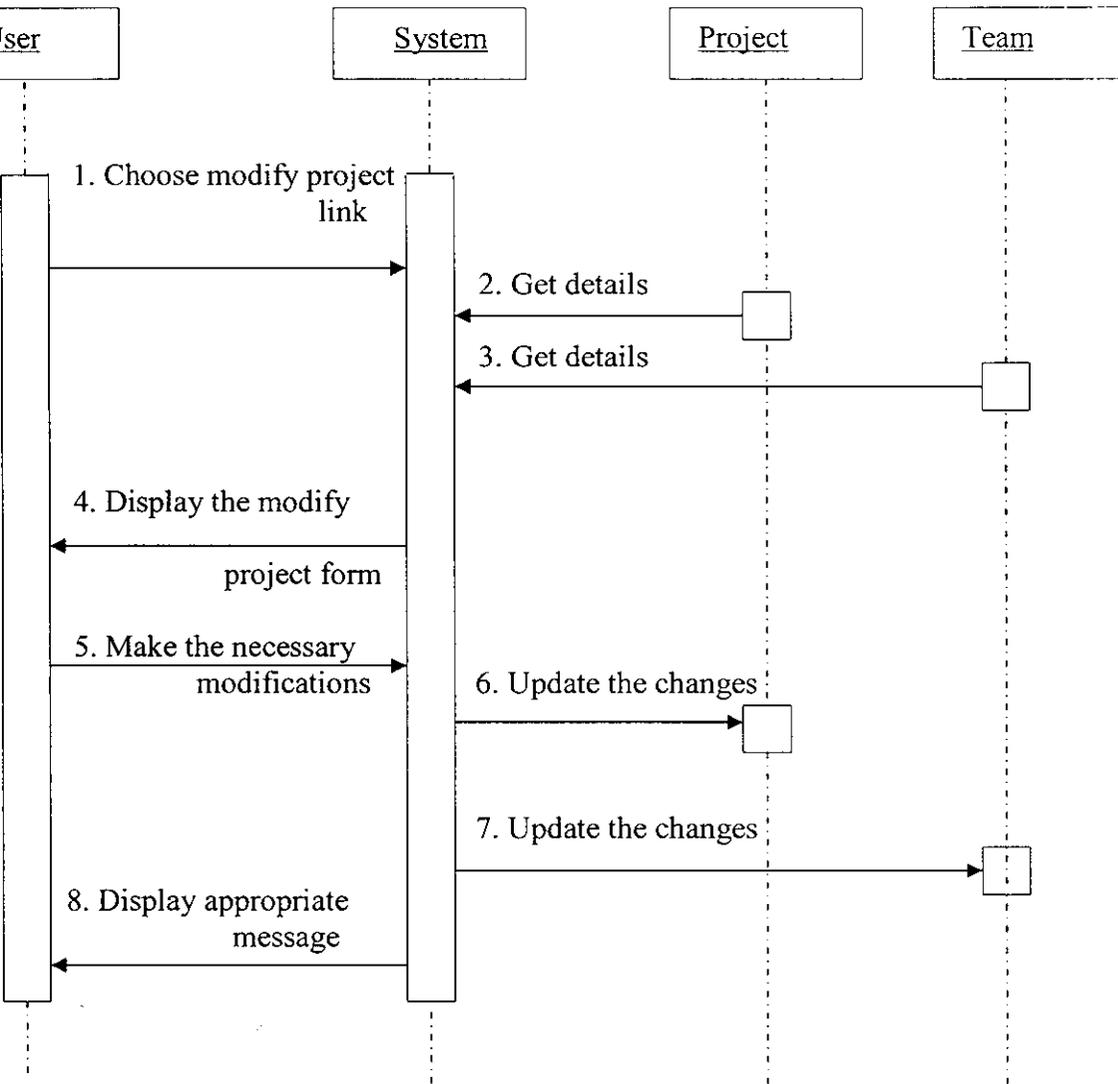
Fig 4.8.14 Project Management-Add

Fig 4.8.15 Project Management-Modify

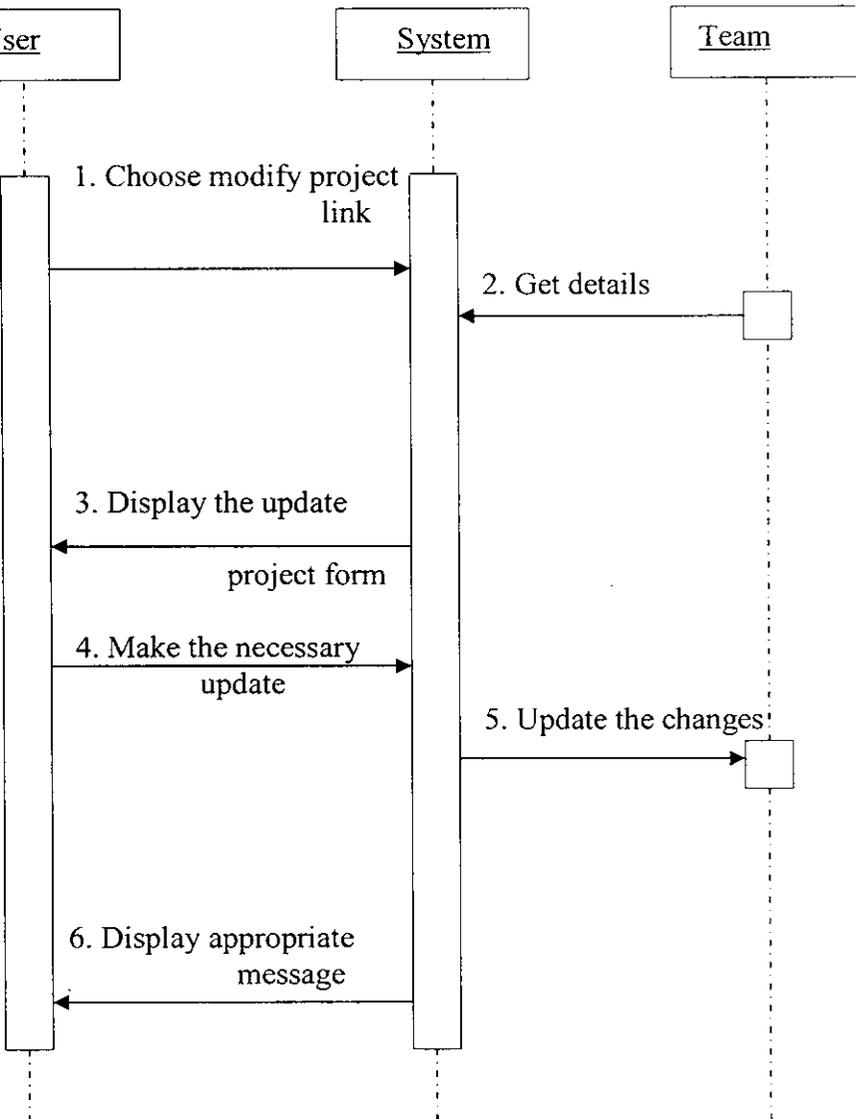
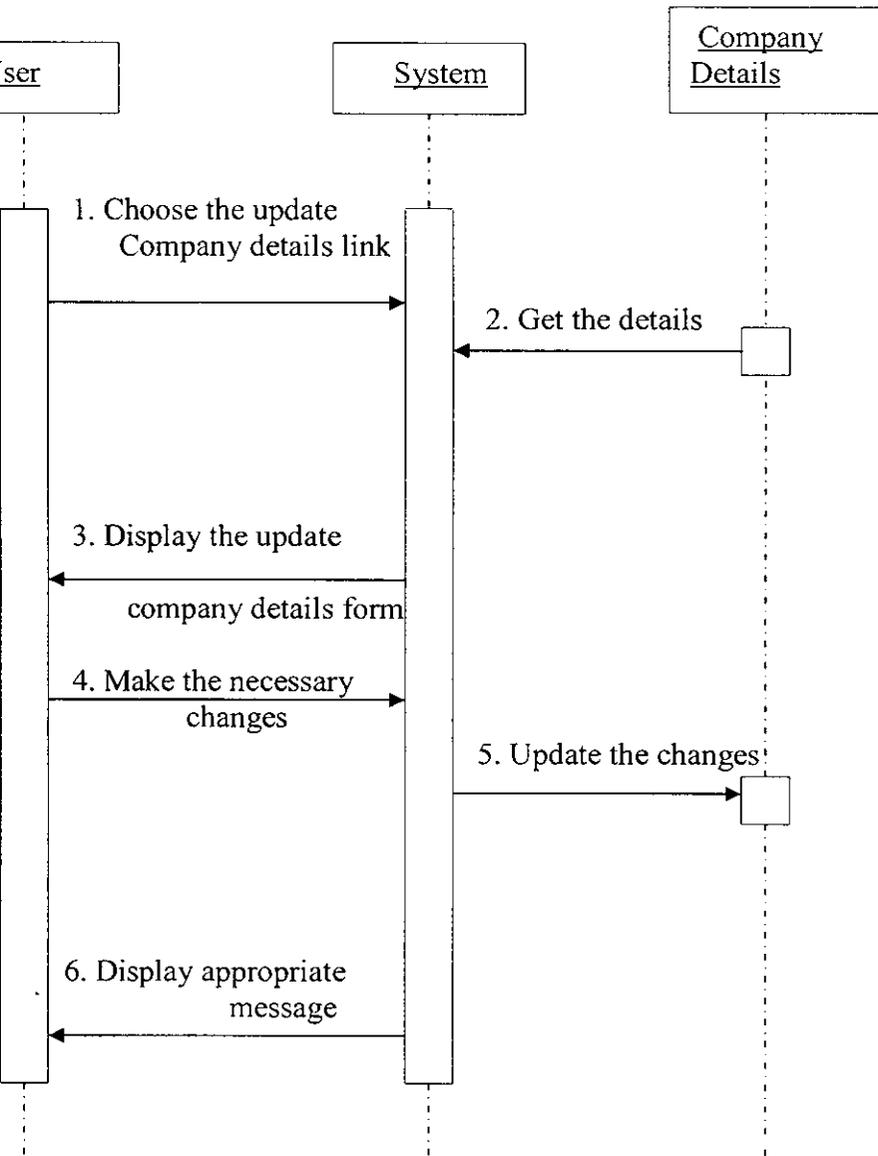
**Fig 4.8.16 Project Management-Update**

Fig 4.8.17 Update Company Details

## 4.9 DATABASE DESIGN:

A database is a collection of inter-related data stored with minimum redundancy to serve many users quickly and efficiently. The general objective of database design is to make the data access easy, inexpensive and flexible to the user. An elegantly designed database can play a strong foundation for the whole system.

The details about the relevant data for the system are first identified. According to their relationship, tables are designed through the following method.

- The data type for each data item in the table is decided.
- The tables are then normalized.

The tables are normalized so that they can provide better response time, have data integrity, avoid redundancy and be secure.

### 4.9.1 TABLE STRUCTURE

#### Design Conventions Used

1. Appropriate words that describe the table should be used.
2. Words used to describe the table should be separated with an Underscore ‘\_’.
3. No special character other than an underscore is used in formulating a table name.

## APPLICATION ADMINISTRATOR

Table No. 4.9.1 CG-VAK

FIELD	TYPE	NULL	KEY
Username	char(20)	No	primary
Designation	char(15)	No	
Password	varchar(20)	No	

**Table No. 4.9.2 COMPANY DETAILS**

FIELD	TYPE	NULL	KEY
CompanyID	char(10)	No	primary
CompanyName	char(20)	No	
Address	varchar(50)	No	
ContactNumber	int(20)	No	
Website	varchar(20)	No	
Employee	int(5)	No	
Turnover	int(10)	No	

**Table No. 4.9.3 CEO**

FIELD	TYPE	NULL	KEY
CompanyID	int(5)	No	foreign
Name	char(20)	No	
PresentAddress	varchar(50)	No	
PermanentAddress	varchar(50)	No	
Contact	int(10)	No	
Email	varchar(20)	No	

**Table No. 4.9.4 COMPANY LOGIN**

FIELD	TYPE	NULL	KEY
CompanyID	int(5)	No	foreign
Name	char(15)	No	
Password	varchar(15)	No	
Status	varchar(10)	No	

**Table No. 4.9.5 COMPANY LICENSE**

FIELD	TYPE	NULL	KEY
CompanyID	int(10)	No	foreign
Type	char(15)	No	
ValidityFrom	Date	No	
ValidityTo	date	No	

Table No. 4.9.6 LICENSE DETAILS

FIELD	TYPE	NULL	KEY
licenseID	int(10)	No	primary
type	char(15)	No	
amount	int(7)	No	
employee	int(5)	No	
validity	int(2)	No	

Table No. 4.9.7 PAYMENT DETAILS

FIELD	TYPE	NULL	KEY
CompanyID	int(5)	No	foreign
Chequeno	int(10)	No	
Bank	char(15)	No	
Branch	char(15)	No	
Date	Date	No	
Amount	int(7)	No	

## ORGANIZATION ADMINISTRATOR

Table No. 4.9.8 COMPANY ADMIN

FIELD	TYPE	NULL	KEY
Login Name	varchar(30)	No	
Department	varchar(30)	No	
Designation	varchar(30)	No	
Password	varchar(20)	No	
Project mgmt	int(5)	No	
Status	int(5)	No	

Table No. 4.9.9 DEPARTMENT

FIELD	TYPE	NULL	KEY
Dept Id	int(10)	No	primary
Dept Name	varchar(30)	No	
Dept Head	varchar(30)	No	

Table No. 4.9.10 DESIGNATION

FIELD	TYPE	NULL	KEY
Desig Id	int(10)	No	primary
Dept Id	int(10)	No	
Desig Name	varchar(30)	No	

Table No. 4.9.11 DESIGNATION SKILL

FIELD	TYPE	NULL	KEY
Desig Skill Id	int(10)	No	primary
Desig Id	int(10)	No	
Desig Skill	varchar(30)	No	
Desig Specification	int(10)	No	

Table No. 4.9.12 SKILL SET

FIELD	TYPE	NULL	KEY
Skill Id	int(10)	No	
Skill	varchar(30)	No	
Specification	varchar(30)	No	

Table No. 4.9.13 RESOURCE PERSONAL

FIELD	TYPE	NULL	KEY
Res Id	int(10)	No	primary
Dept Id	int(10)	No	
Desig Id	int(10)	No	
First Name	varchar(30)	No	
Middle Name	varchar(30)	No	
Last Name	varchar(30)	No	
Date of Birth	Text	No	
Present Add	varchar(30)	No	
Permanent Add	varchar(30)	No	
Nationality	varchar(30)	No	
Contact no	int(15)	No	
Mail	varchar(30)	No	
Status	varchar(10)	No	

Table No. 4.9.14 RESOURCE EDUCATION

FIELD	TYPE	NULL	KEY
Res Id	int(10)	No	
Course	varchar(30)	No	
Institution	varchar(30)	No	
Year of Passing	year(4)	No	
Percent	int(10)	No	

Table No. 4.9.15 RESOURCE EXPERIENCE

FIELD	TYPE	NULL	KEY
Res Id	int(10)	No	
Organisation	varchar(30)	No	
Designation	varchar(30)	No	
From	varchar(30)	No	
To	varchar(30)	No	



## **IMPLEMENTATION**

System Implementation is the part of the software engineering life cycle, where, the design artifacts are converted to a working application. Coding is done in this stage using a template framework and programming language, which would solve the specific problem the business has. Once the design is coded into a working application, it has to be verified, validated and tested in detail. The tested product if successful is deployed in the user environment.

### **5.1 SYSTEM VERIFICATION**

System Verification answers the question “Am I building the product right?” It includes the review of interim work steps and interim deliverables during a project to ensure they are acceptable. Verification also determines if the system is consistent, adheres to standards, uses reliable techniques and prudent practices, and performs the selected functions in the correct manner. In data access, it verifies whether the right data is being accessed, in terms of the right place and in the right way.

### **5.2 SYSTEM VALIDATION**

Validation answers the question “Am I building the product right?” This checks whether the developer is moving towards the right product, whether the development is moving towards the actual intended product that was agreed upon in the beginning. Validation also determines if the system complies with the requirements and performs functions for which it is intended and meets the organization’s goals and user needs. It is traditional and is performed at the end of the project. In data access, it checks whether we are accessing the right data, in terms of data required to satisfy the requirement.

### 3 TESTING

Testing is a critical element of software quality and assurance and represents the ultimate review of specification design and coding. It is a vital activity that has to be enforced in the development of the system. This could be done in parallel during all the phases of system development. The feedback received from these tests can be used for further enhancement of the system under consideration. The testing phase conducts test using the Software Requirements Specifications as a reference and with the goal to see whether system satisfies the specified requirements.

Standard procedures have been followed in testing our system. Test cases are generated for each screen. These test cases will cover every possibility which could result in both positive and negative results. These test plans are maintained for any further testing done on the system.

The main types of test carried out are:

- Unit testing
- Integration testing
- System testing
- Validation testing

#### 5.3.1 UNIT TESTING

Each and every module is tested separately to check if its intended functionality is met. Some unit testings are performed are:

1. Validating the user
2. Loading database and its applications

#### 5.3.2 INTEGRATION TESTING

It is the testing performed to detect errors on inter connection between modules. The application should connect to respective databases. The application events should

### 3.3 SYSTEM TESTING

The system is tested against the system requirements to see if all the requirements are met and if the system performs as per the specified requirements. The system is tested as a whole to check for its functionality.

### 3.4 VALIDATION TESTING

This test is done to check for the validity of the entered input. The user inputs to the corresponding application input fields are verified before updating in the database.

### 3.4 TEST CASES:

**Table No. 5.4.1 APPLICATION ADMINISTRATOR:**

S. NO	TEST CASE	INPUT DATA	EXPECTED RESULT	ACTUAL RESULT	PASS/ FAIL
1.	Application Administrator Login	User name and password	The administrator should be allowed to enter the system	The administrator is allowed to enter the system	Pass
2.	Create Administrators	Resource name, department, designation, password	New administrator should be created	New administrators are created	Pass
3.	License Management-Add	license type, validity, amount and the number of employees	The License Type should be added	The License Type should be added	Pass
4.	License Management-	license type, and amount	The License Type should	The License Type is	Pass

<b>NO</b>	<b>TEST CASE</b>	<b>INPUT DATA</b>	<b>EXPECTED RESULT</b>	<b>ACTUAL RESULT</b>	<b>PASS/ FAIL</b>
	License Requested Companies		The list of companies requested for license should be displayed	The list of companies requested for license is displayed	Pass
	License Allocation	Company Name	The license should be allocated to the company	The license is allocated to the company	Pass
	License Cancellation	Company Name	The license should be cancelled to the company	The license is cancelled to the company	Pass

**Table No. 5.4.2 ORGANIZATION ADMINISTRATOR:**

<b>S. NO</b>	<b>TEST CASE</b>	<b>INPUT DATA</b>	<b>EXPECTED RESULT</b>	<b>ACTUAL RESULT</b>	<b>PASS/ FAIL</b>
1.	Organization Administrator Login	User name and password	The administrator should be allowed to enter the system	The administrator is allowed to enter the system	Pass
2.	Create Administrator	Resource name, department, designation, password	New administrator should be created	New administrators are created	Pass
3.	Department Management-Add	Department Name, Head, Number of Employees	The department should be added	The department is added	Pass
<b>S.</b>	<b>TEST CASE</b>	<b>INPUT</b>	<b>EXPECTED</b>	<b>ACTUAL</b>	<b>PASS/</b>

4.	Department Management-Update	Department Name, Head, Number of Employees	The department details should be updated	The department details are updated	Pass
5.	Designation Management-Add	Department Name, designation, Skill set, Specification	The designation should be added	The designation is added	Pass
6.	Designation Management-Update	Department Name, designation, Skill set, Specification	The designation details should be updated	The designation details are updated	Pass
7.	Resource Management-Add	personal details, educational qualification, work experience and skills	The resource should be added	The resource is added	Pass
8.	Resource Management-Update	Resource name, personal details, educational qualification, skills	The resource details should be updated	The resource details are updated	Pass
9.	Resource Management-Delete	Resource name	The resource should be deleted	The resource is deleted	Pass
10.	Project Management-Add	Project details and team details	The project should be added	The project t is added	Pass
11.	Project Management-Modify	Project duration and team members	The project details should be modified	The project tdetails are modified	Pass
12.	Project Management-	team details	The project details should	The project details are	Pass

Table No. 5.4.3 ORGANIZATION END USER:

O	TEST CASE	INPUT DATA	EXPECTED RESULT	ACTUAL RESULT	PASS/ FAIL
1.	Organization End User Login	User name and password	The end user should be allowed to enter the system	The end user is allowed to enter the system	Pass
2.	Update Personal details	contact number, address and mail id	The personal details should be updated	The personal details are updated	Pass
3.	Update Skill Set	Skill set and specification	The skill set should be updated	The skill set updated	Pass
4.	Project Status View		The project details should be displayed	The project details are displayed	Pass



## 6.1 CONCLUSION

The Resource Pool Management, a completely generic, easily accessible, cost-effective, and dynamically generated system, enables the user to be benefited in many ways. Deploying the system into the cloud, makes it easy and available for anyone and everyone to use.

Once an Organisation becomes a registered user, then the beneficiary factors are made available to them as a whole. The System provides a safe and complete control over their Organisation's project allocation and maintenance, along with the employee profile maintenance.

The system, also provides any required enhancements by every Organisation through the cloud, which helps them to avoid in buying a fresh and new software every time the Organisation requires an update in their Resource Pool Management Software. Thus the entire Resource Pool Management System is a generic and independent System fulfilling the requirements of any kind of Organisation.

## FUTURE ENHANCEMENTS

- The system as of now has some conflicting Security issues on deploying in the External Cloud. This can be rectified by deploying it in the Internal Cloud.
- Any modifications required by the Organisation on purchase, can be made available for modification by the user themselves through the Network Cloud.



## 7.1 APPENDIX 1: SAMPLE SOURCE CODE

### 7.1.1 LICENSE REQUESTED COMPANIES :

```

<html>
<head>
<meta http-equiv="Content-Language" content="en" />
<meta name="GENERATOR" content="PHPEclipse 1.0" />
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>LICENSE REQUESTED COMPANIES</title>
<script language=JavaScript>

function con(view)
{
    alert("hello");
    alert(view);
    self.location='lic_alloc.php?view=' + view;
}

</script>

</head>

<body bgcolor="blanchedalmond">
<form action="lic_request.php" method="post">
<br>
<u><b><center>LICENSE REQUESTED COMPANIES</b></center></u></br>
<style type="text/css">.nobrtable br { display: none }</style>
<div class="nobrtable">

<table border="2" width="50%" height="75%" rowspan="3" colspan=
align="center" >
<tr>
<th width="10%"></th>
<th width="40%">COMPANY NAME</th>
<th width="35%">NO. OF EMPLOYEES</th>
<th width="30%"></th>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</table>
</div>
</form>
</body>
</html>

```

```
mysql_select_db("applicationadmin", $con);
```

```
$sql = "SELECT CompanyName,Employee FROM companydetails,complogin WHERE
complogin.ComanyID=companydetails.CompanyID and complogin.Status='inactive'";
```

```
$sql = mysql_query($sql,$con) or die(mysql_errno().':'.mysql_error());
```

```
while($a=mysql_fetch_array($sql))
{
    echo "<tr><br>";
    echo "<td><input type='radio' id=$i name='radio'></td>";
    echo "<td><input type='text' name='\"'. $a[0].\"" value='\"'. $a[0].
size='30' maxlength='40'></td>";
    echo "<td><input type='text' name='\"'. $i.\"" value='\"'. $a[1].\"" size='30
maxlength='40'></td>";
    //echo "<td><input type='submit' name='view' value='VIEW'></td>";
    echo "
href='http://localhost/Resource%20Pool%20Mgmt/lic_alloc.php?view='. $a[0].\""
name='view' >view</a></td>";
    echo "</br></tr>";
```

```
/*if((isset($_POST['view'])) and ($_POST['radio']))
```

```
{
    $_SESSION['cname']=$a[0];
    //echo '<META http-equiv="refresh" content="0;URL=lic_alloc.php">';
    //exit(0);
}*/
}
```

```
?>
```

```
</table>
```

```
<table>
```

```
<tr>
```

```
<br>
```

```
<td align="center"><input type="submit" name="next" value="NEXT"/></td>
```

```
<td align="center"><input type='button' name="cancel" value="CANCEL
```

```
onClick='top.location="view.php"' class='button'/></td>
```

```
<br>
```

```

</form>
</body>
</html>

```

### 7.1.2 LICENSE ALLOCATION:

```

<?php session_start();
echo $_SESSION['cname'];?>
<html>
<head>
<meta http-equiv="Content-Language" content="en" />
<meta name="GENERATOR" content="PHPEclipse 1.0" />
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>LICENSE ALLOCATION</title>
<SCRIPT language=JavaScript>
function reload(form){
var val=form.select.options[form.select.options.selectedIndex].value;
var val1=form.select1.options[form.select1.options.selectedIndex].value;
self.location='lic_alloc.php?select=' + val + 'select1=' + val1 ;
}
</script>

</head>

<body bgcolor="blanchedalmond">

<form action="lic_alloc.php" method="post">

<br><u><b><center>LICENSE ALLOCATION</b></center></u></br>

<style type="text/css">.nobrtable br { display: none }</style>
<div class="nobrtable">
<table cellspacing="10" rowspan="4" colspan="2" align="center">

<tr>
<br>
<td>COMPANY NAME</td>
<td><select name="select1">
<?php

```

```

$ssql=mysql_query("SELECT CompanyName FROM companydetails",$con);

while($sarr=mysql_fetch_array($ssql))
{
    if($sarr['CompanyName']==@$select1)
    {
        Print "<option selected
value=\"\"".$sarr['CompanyName']."\">".$sarr['CompanyName']."</option>";
    }
    else
    {
        print
"<option value=\"\"".$sarr['CompanyName']."\">".$sarr['CompanyName']."</option>";
    }
}
//$comp_name=$_POST['select1'];
?>

</br>
</tr>
<tr>
<br>
<td>LICENSE TYPE</td>
<td><select name="select" onchange="reload(this.form)">
<?php

@$select=$_GET['select'];
@$select1=$_GET['select1'];

$con = mysql_connect("localhost", "root", "");
mysql_select_db("ApplicationAdmin", $con);

$ssql=mysql_query("SELECT Type FROM license");

while($sarr=mysql_fetch_array($ssql))
{
    print "<option value=\"\"".$sarr['Type']."\">".$sarr['Type']."</option>";
}

//$select=$_POST['select'];

```

```
$to=$_POST['to'];
$fr=$_POST['fr'];
```

```
$con = mysql_connect("localhost", "root", "");
mysql_select_db("ApplicationAdmin", $con);
```

```
$sql=mysql_query("SELECT Type,Amount,validity FROM license");
```

```
while($arr1=mysql_fetch_array($sql))
```

```
{
    if($arr1[0]==$select)
    {
        $_SESSION['$select']=$arr1[0];
        $new=$arr1[0];
        $_SESSION['$amt']=$arr1[1];
        $_SESSION['$validity']=$arr1[2];
        break;
    }
}
```

```
?>
```

```

        </select>
        </td>
    </br>
: </tr>
<?php echo @$select;
echo @$select1;?>
<tr>
<br>
<td></td>
<td><input type="submit" name="allocate" value="ALLOCATE" size="40"
maxlength="40"/></td>
<td></td>
</br>
</tr>

<tr>
<br>
<?php
```

```

    echo "<td><input type=\"text\" name=\"amt\" size=\"40\" maxlength=\"40\"
value=\"".$_SESSION['$amt']."\"/></td>";
?>
    <td></td>
</br>
</tr>

<tr>
<br>
    <td>FROM</td>
<?php
if(isset($_POST['allocate']))
{
    $sam=date("Y-m-d");
    echo "<td><input type=\"text\" name=\"fr\" size=\"20\" maxlength=\"40\"
value=\"".$_SESSION['$sam']."\"/></td>";
}
else
{
    echo "<td><input type=\"text\" name=\"fr\" size=\"20\" maxlength=\"40\"/></td>";
}
?>
    </br>
</tr>

<tr>
<br>
    <td>TO</td>
<?php
if(isset($_POST['allocate']))
{
    $s=mktime(0,0,0,date("m"),date("d"),date("Y")+$_SESSION['$validity']);
    $s1=date("Y-m-d", $s);
    echo "<td><input type=\"text\" name=\"to\" size=\"20\" maxlength=\"40\"
value=\"".$_SESSION['$s1']."\"/></td>";
}
else
{
    echo "<td><input type=\"text\" name=\"to\" size=\"20\" maxlength=\"40\"/></td>";
}
?>

```

```
<tr>
<br>
<td><input type="submit" name="ok" align="left" value="OK" size="1"
maxlength="40"/></td>
```

```
<?php
if (isset($_POST['ok']))
{
    //echo "hai";
    $sql=mysql_query("SELECT * FROM companydetails");

    if(@$select1)
    {
        while($arr=mysql_fetch_array($sql))
        {
            if($arr[1]==@$select1)
            {
                $_SESSION['comp_id']=$arr[0];

            }
        }
    }
    $query="INSERT INTO complicense(CompanyId,Type,ValidityFrom,ValidityTo,Status)VALUES('".$_SESSION['comp_id'].",".$new.", ".$sam.", ".$s1.", 'active')";
    mysql_query($query);

    $con = mysql_connect("localhost", "root", "");
    $dbname=@$select1;
    echo $dbname;
    $dbusername="root";
    $dbname="CGVAK_".$dbname;
    if (!mysql_query("CREATE DATABASE $dbname")) die(mysql_error());
    echo "success in database creation.";

    $s1 = "CREATE TABLE $dbname.`comp_admin` (`Login_Name` VARCHAR(20) NOT NULL, `Department` VARCHAR(30) NOT NULL, `Designation` VARCHAR(20) NOT NULL, `Password` VARCHAR(20) NOT NULL, `Project_mgmt` INT(5) NOT NULL)";
}
```

```
$s2 = "CREATE TABLE $dbname.`Department` (`Dept_Id` INT(10) NOT NULL
AUTO_INCREMENT, `Dept_Name` VARCHAR(30) NOT NULL, `Dept_Head`
VARCHAR(30) NOT NULL, `No_of_Employees` INT(10) NOT NULL, PRIMARY
KEY (`Dept_Id`)) ENGINE = MyISAM;";
```

```
mysql_query($s2);
```

```
$s3 = "CREATE TABLE $dbname.`Designation` (`Desig_Id` INT(10) NOT NULL
AUTO_INCREMENT, `Dept_Id` INT(10) NOT NULL, `Desig_Name` VARCHAR(30)
NOT NULL, PRIMARY KEY (`Desig_Id`)) ENGINE = MyISAM;";
```

```
mysql_query($s3);
```

```
$s4 = "CREATE TABLE $dbname.`Designation_Skill` (`Desig_Skill_Id` INT(10) NOT
NULL AUTO_INCREMENT, `Desig_Id` INT(10) NOT NULL, `Desig_Skill`
VARCHAR(30) NOT NULL, `Desig_Specification` VARCHAR(50) NOT NULL,
PRIMARY KEY (`Desig_Skill_Id`)) ENGINE = MyISAM;";
```

```
mysql_query($s4);
```

```
$s5 = "CREATE TABLE $dbname.`Skill_Set` (`Skill_Id` INT(10) NOT NULL
AUTO_INCREMENT, `Skill` VARCHAR(30) NOT NULL, `Specification`
VARCHAR(30) NOT NULL) ENGINE = MyISAM;";
```

```
mysql_query($s5);
```

```
$s6 = "CREATE TABLE $dbname.`Resource_personal` (`Res_Id` INT(10) NOT
NULL AUTO_INCREMENT, `Dept_Id` INT(10) NOT NULL, `Desig_Id` INT(10) NOT
NULL, `First_Name` VARCHAR(30) NOT NULL, `Middle_Name` VARCHAR(30)
NOT NULL, `Last_Name` VARCHAR(30) NOT NULL, `Date_of_Birth` TEXT NOT
NULL, `Presnt_Add` VARCHAR(30) NOT NULL, `Permanent_Add` VARCHAR(30)
NOT NULL, `Nationality` VARCHAR(30) NOT NULL, `Contact_no` INT(15) NOT
NULL, `Mail` VARCHAR(30) NOT NULL, `Status` VARCHAR(10), PRIMARY KEY
(`Res_Id`)) ENGINE = MyISAM;";
```

```
mysql_query($s6);
```

```
$s7 = "CREATE TABLE $dbname.`Resource_education` (`Res_Id` INT(10) NOT
NULL, `Course` VARCHAR(30) NOT NULL, `Institution` VARCHAR(30) NOT
NULL, `Year_of_Passing` YEAR(4) NOT NULL, `Percent` INT(10) NOT NULL,
ENGINE = MyISAM;";
```

```
mysql_query($s7);
```

```
$s8 = "CREATE TABLE $dbname.`Resource_experience` (`Res_Id` INT(10) NOT
NULL, `Organisation` VARCHAR(30) NOT NULL, `Designation` VARCHAR(30)
NOT NULL, `From` VARCHAR(30) NOT NULL, `To` VARCHAR(30) NOT NULL,
ENGINE = MyISAM;";
```

```
mysql_query($s8);
```

```
$s9 = "CREATE TABLE $dbname.`resource_skillset` (`Res_Id` INT(10) NOT
NULL, `Res_Skill_Id` INT(10) NOT NULL, `Res_Skill` CHAR(20) NOT NULL,
`Res_Specification` CHAR(20) NOT NULL) ENGINE = MyISAM;";
```

```
mysql_query($s9);
```

```

$ssql0="CREATE TABLE $dbname`.`project_details` (`Proj_Id` INT( 10 ) NOT NU
,`Proj_Title` VARCHAR( 25 ) NOT NULL ,`Proj_Duration` VARCHAR( 15 ) NO
NULL ,`Proj_From` VARCHAR( 15 ) NOT NULL ,`Proj_To` VARCHAR( 15 ) NO
NULL ,`Proj_Domain` VARCHAR( 20 ) NOT NULL ,`Proj_Technology` VARCHA
20 ) NOT NULL ) ENGINE = MYISAM ;";
mysql_query($ssql0);

```

```

//echo "success";
//echo '<META http-equiv="refresh" content="0;URL=view.php">';
//exit(0);
}
?>
<td><input type='button' name="back" align="left" value="CANCEL" size="
maxlength="40" onClick='top.location="view.php"' class='button'/></td>
</br>
</tr>

</table>
</div>
</form>
</body>
</html>

```

### 7.1.3 PROJECT CREATION:

```

<?php session_start();
$db_name=cgvak_.$_SESSION['dbname'];?>

<html>
<head>
<meta http-equiv="Content-Language" content="en" />
<meta name="GENERATOR" content="PHPEclipse 1.0" />
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>PROJECT CREATION</title>
</head>

<body bgcolor="blanchedalmond">
<form action="proj_create.php" method="post">

<br>

```

```

<div class="nobrtable">
<table cellpadding="10" rowspan="3" colspan="2" align="center">
<tr>
<td><b>PROJECT DETAILS:<b></td>
<br>
</tr>

<br>
<tr>
<td>PROJECT TITLE</td>
<td><input type="text" name="title" size="40" maxlength="40"/></td>
</br>
</tr>

<tr>
<td>PROJECT DURATION</td>
<td><input type="text" name="duration" size="40" maxlength="40"/></td>
</br>
</tr>

<tr>
<td>FROM</td>
<td><input type="text" name="from" size="40" maxlength="40"/></td>
<td>TO</td>
<td><input type="text" name="to" size="40" maxlength="40"/></td>
<br/>
</tr>

<tr>
<br>
<td>PROJECT DOMAIN</td>
<td><input type="text" name="domain" size="40" maxlength="40"/></td>
</br>
</tr>
<br>

<tr>
<br>
<td>REQUIRED TECHNOLOGY</td>
<td><input type="text" name="technology" size="40" maxlength="40"/></td>
<br/>

```

```

<tr>
<br>
<td align="center"><input type="submit" name="next" value="NEXT"/></td>
<?php

$_SESSION['title']=$_POST['title'];
$_SESSION['duration']=$_POST['duration'];
$_SESSION['from']=$_POST['from'];
$_SESSION['to']=$_POST['to'];
$_SESSION['domain']=$_POST['domain'];
$_SESSION['technology']=$_POST['technology'];

$con = mysql_connect("localhost", "root", "");
mysql_select_db($db_name, $con);

$create_query="INSERT INTO
project_details(Proj_Title,Proj_Duration,Proj_From,Proj_To,Proj_Domain,Proj_Techno
ogy)VALUES('".$_SESSION['title']. "','".$_SESSION['duration']. "','".$_SESSION['from
. "','".$_SESSION['to']. "','".$_SESSION['domain']. "','".$_SESSION['technology']. "')";

mysql_query($create_query);
$_SESSION['last_id']=mysql_insert_id();

if(isset($_POST['next']))
{
?>

<script language=JavaScript>
alert("Project Successfully Created!!You are Requested to create the Project Team!!!");
</script>

<?php
echo "<META HTTP-EQUIV=\\"refres
content=\\"0;URL=proj_team.php\\"">";
exit();
}

?>

```

```
<td align="center"><input type='button' name="cancel" value="CANCEL  
onClick='top.location="view.php"' class='button'/></td>  
<br>  
</tr>  
</table>  
</div>  
</form>  
</body>  
</html>
```

## 7.2 APPENDIX 2: SCREEN SHOTS:

### 7.2.1 COMPANY REGISTRATION:

PHP - compdet.php - Eclipse SDK  
File Edit Navigate Search Project PHP/Apache Run Window Help  
Problems Console Bookmarks PHP Browser  
http://localhost:Resource%20Pool%20Mgmt/compdet.php

**COMPANY DETAILS:**

COMPANY NAME	mindtree	
	bangalore	
ADDRESS		
CONTACT NUMBER	044	1234556
	(Enter STD Code)	(Phone Number)
WEBSITE	www.mindtree.com	
NUMBER OF EMPLOYEES	10000	
TURNOVER	1000000	
BACK	OK	

Fill in all the \* Mandatory Fields

MySQL - Wikipedix PHP - compdet.php... Notepad Balance Netconnect SCREENS - Microsoft... 10:38 AM

### 7.2.2 PAYMENT DETAILS:

PHP - compdet.php - Eclipse SDK  
File Edit Navigate Search Project PHP/Apache Run Window Help  
Problems Console Bookmarks PHP Browser  
http://localhost:Resource%20Pool%20Mgmt/pay.php

**COMPANY PAYMENT DETAILS**

CHEQUE NUMBER	*
BANK	*
BRANCH	*

DA Windows Internet Explorer

AM

BA Your Registration has been accepted!!! Kindly check your mail for the Login Details!!!

MySQL - Wikipedix PHP - compdet.php... Notepad Balance Netconnect SCREENS - Microsoft... 11:39 AM

## 7.2.3 LICENSE REQUESTED COMPANIES:

**LICENSE REQUESTED COMPANIES**

COMPANY NAME	NO. OF EMPLOYEES	
asd	143	<a href="#">view</a>
pgi	24	<a href="#">view</a>
infosys	3454	<a href="#">view</a>
accenture	10000	<a href="#">view</a>

NEXT CANCEL

Done

MySQL - Wikipedia... PHP - lic\_request.php... Total - Notepad... Reliance Netconnect... Document - Micro... 10:39 AM

## 7.2.4 LICENSE ALLOCATION:

**LICENSE ALLOCATION**

COMPANY NAME: cts

LICENSE TYPE: GoldLicense

AMOUNT: 10000

FROM: 2010-04-15

TO: 2010-04-15

OK CANCEL

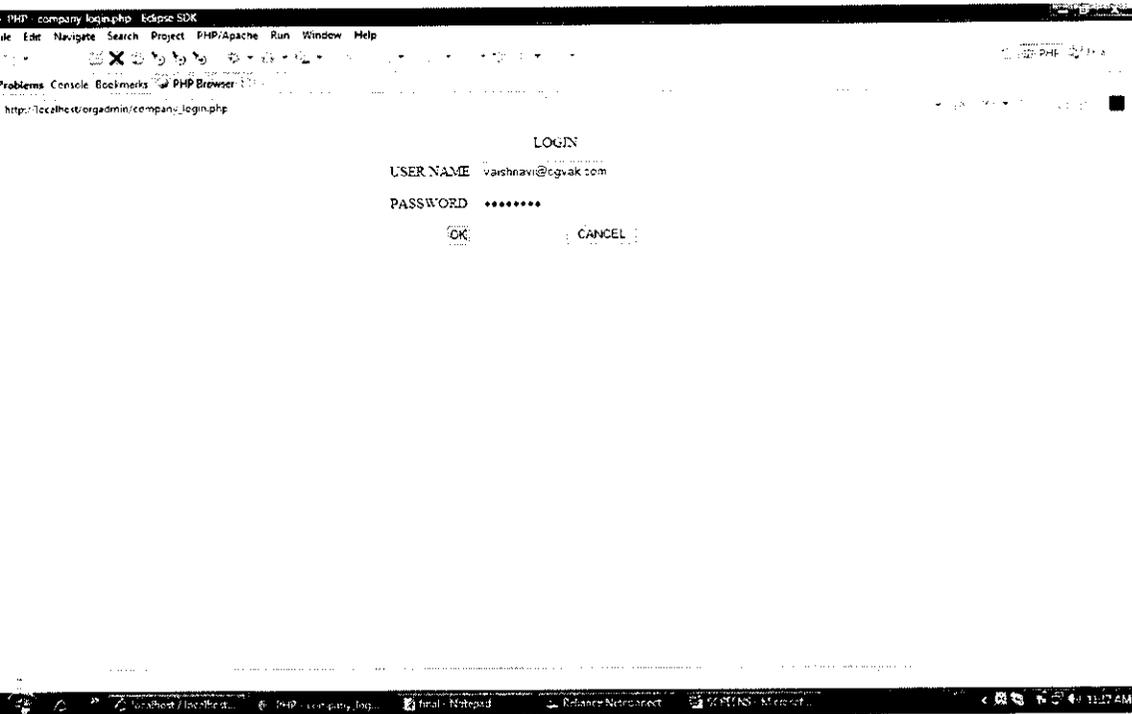
ALLOCATE

http://localhost:Resource%20Pool%20Mgmt/lic\_alloc.php

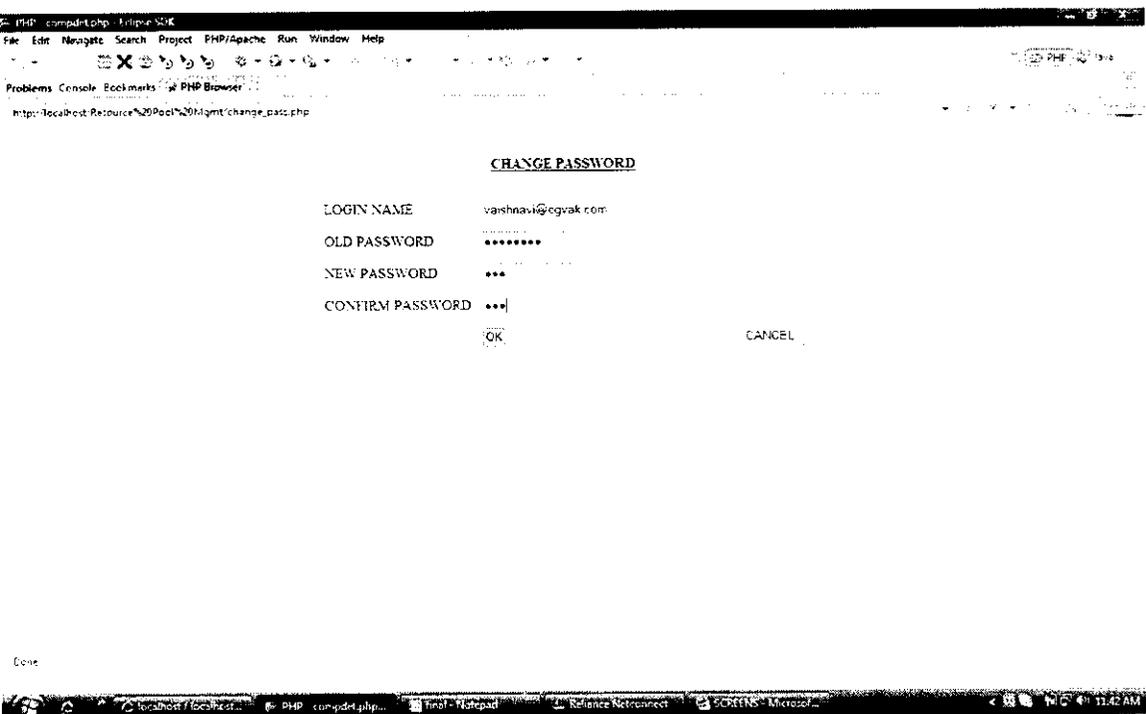
MySQL - Wikipedia... PHP - lic\_alloc.php... Total - Notepad... Reliance Netconnect... Document - Micro... 10:43 AM



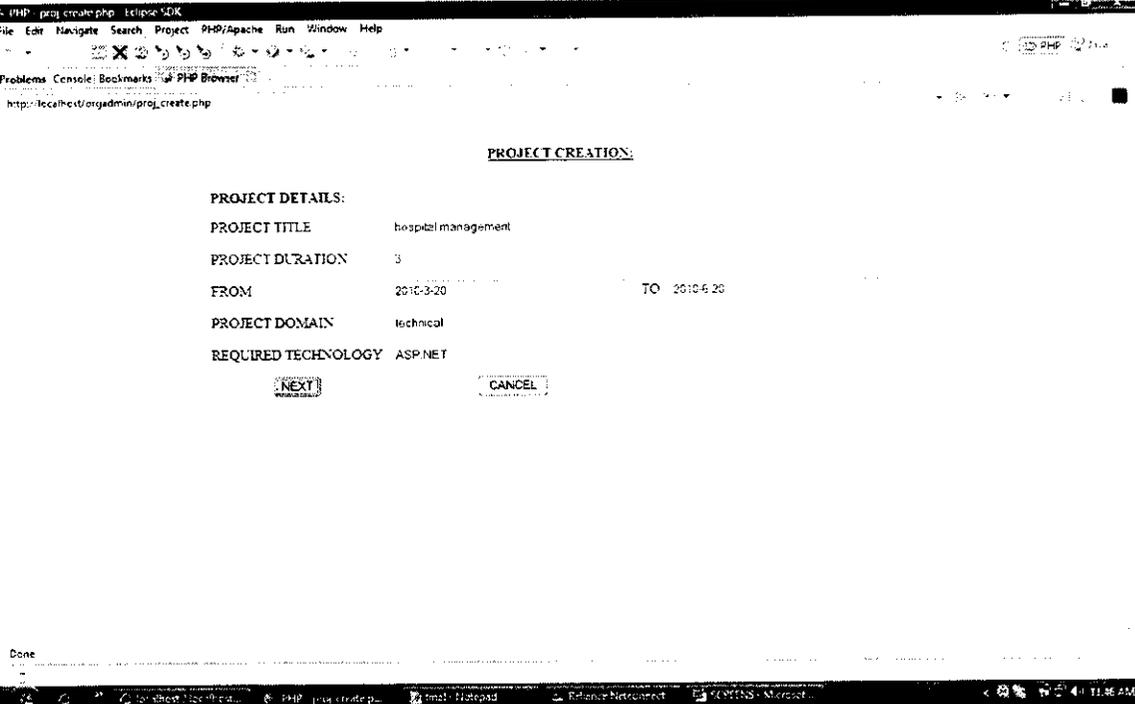
## 7.2.7 COMPANY LOGIN :



## 7.2.8 CHANGE PASSWORD:



## 7.2.9 PROJECT CREATION :





**REFERENCES :****BOOKS:**

- Core PHP Programming, Leon Atkinson, Pearson Education Asia, Second Edition 2001.
- Sam's Teach Yourself, PHP, MYSQL and Apache, Julie C.Meloni, Pearson Education Third Edition 2007.
- Internet & World Wide Web, How To Program, Deitel & Deitel, Goldberg, Pearson Education, Third edition 2004.

**WEBSITES :**

- <http://php.net/manual/en/features.sessions.php>
- <http://www.roseindia.net/sql/mysql-table/mysql-php-select.shtml>
- <http://www.computing.net/answers/webdevel/redirection-after-submit-php-form/3580.html>
- [http://php.about.com/od/finishedphp1/qt/current\\_date.htm](http://php.about.com/od/finishedphp1/qt/current_date.htm)
- [http://www.w3schools.com/Html/html\\_eventattributes.asp](http://www.w3schools.com/Html/html_eventattributes.asp)