



CLAIM FOR MOBILE PRODUCT REPAIRS

By

P- 2270

B.KIRUTHIGA

Reg. No. 71205621021



Of

KUMARAGURU COLLEGE OF TECHNOLOGY, COIMBATORE

A PROJECT REPORT

Submitted to the

FACULTY OF INFORMATION AND COMMUNICATION ENGINEERING

In partial fulfillment of the requirements

for the award of the degree

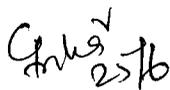
of

MASTER OF COMPUTER APPLICATION

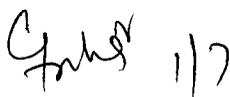
June 2008

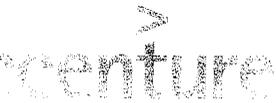
BONAFIDE CERTIFICATE

Certified that this project report titled “CLAIM FOR MOBILE PART REPAIRS” is the bonafide work of Ms. B.Kiruthiga (Reg No: 71205621021) who carried out the research under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

**Supervisor****Head of the Department**

Submitted to Project and Viva Examination held on 01-07-08

**Internal Examiner****External Examiner**



May 15, 2008.

Kumaraguru College of Technology

This is to certify that **Kiruthiga. B** has completed an internship with Accenture Services Pvt. Ltd. The period of internship was from December 17, 2007 to May 15, 2008.

During this period, the intern was working on a project entitled as **Claim for Mobile Part Repairs.**

We found the intern's conduct good.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Shailendra", is written over a horizontal line. The signature is cursive and includes a long, sweeping flourish at the end.

Shailendra K Dasika
India HR Services Centre
Accenture Services Pvt. Ltd

ABSTRACT

This project entitled “Claim for Mobile Part Repairs” is a Web-based application which provides the information about the validity of the mobile handset. The major objective is to provide global access to the Claim for Mobile Part Repair database and to decide the hand-sets warranty by checking the data within the database.

The validity of the mobile’s internal parts such as transistors, integrated circuits and quantity available are identified with the help of Valid Part Component (VPC). Various details about the mobile’s internal parts are stored here.

The mobile’s warranty details can be got from the Product Validity Component (PVC). The Load Data Component (LDC) serves as the data loader for the CPR database. The “Claims Product Repairs” checks the mobile’s warranty and validity by using the Valid Part Component and Product Validity Component.

This application is designed for Authorized Service Vendors of a renowned Mobile Company to quicken the mobile servicing process. The vendors from various parts of the world can simultaneously use this application and thus the servicing process gets quickened.

This project has been developed using J2EE as front end and Oracle 10g as back end.

ACKNOWLEDGEMENT

I thank our Principal, **Dr. Joseph V.Thanikal**, Kumaraguru College of Technology, Coimbatore for giving me an opportunity to take up this project.

I express my deep sense of gratitude to **Dr.M.Gururajan**, Head of Department, Computer Application for extending his help in providing all the facilities within our college laboratory.

I express my deep felt gratitude to **Mrs.V.Geetha**, Assistant Professor, Department of Computer Applications for her guidance, support, cooperation and valuable suggestions during the course of this project.

I also thank **Mr.N.Padmanabhan**, Project Manager, Accenture Services for his guidance and support at Accenture Services, Chennai.

Also I would like to thank my parents, friends, and all those who helped me in this project and whose names are leftover.

TABLE OF CONTENTS

<i>TOPIC</i>	<i>PAGE NO</i>
ABSTRACT	iv
ACKNOWLEDGEMENT	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
I INTRODUCTION	1
1.1 COMPANY PROFILE	1
1.2 PROJECT OVERVIEW	3
II SYSTEM ANALYSIS	4
2.1 EXISTING SYSTEM ARCHITECTURE	4
2.3 PROPOSED SYSTEM ARCHITECTURE	4
III DEVELOPMENT ENVIRONMENT	5
3.1 HARDWARE ENVIRONMENT	5
3.2 SOFTWARE ENVIRONMENT	5
3.2.1 TOOLS USED	5
3.3 PROGRAMMING ENVIRONMENT	6
IV SYSTEM DESIGN	8
4.1 DATA MODEL	8
4.1.1 TABLE STRUCTURE	8
4.2 PROCESS MODEL	15
4.2.1 USE CASE DIAGRAM	15

4.2.2	SEQUENCE DIAGRAM	19
4.2.3	ACTIVITY DIAGRAM	23
V	ARCHITECTURE DETAILS	26
5.1	INTERNAL ARCHITECTURE	26
5.2	EXTERNAL ARCHITECTURE	26
VI	SYSTEM IMPLEMENTATION	27
6.1	IMPLEMENTATION PROCESS	27
VII	TESTING	28
7.1	UNIT TESTING	28
7.2	INTEGRATION TESTING	28
7.3	SYSTEM TESTING	29
7.3.1	SECURITY TESTING	29
7.3.2	STRESS TESTING	29
7.4	TESTING TOOL	30
VIII	PERFORMANCE AND LIMITATIONS	31
8.1	MERITS OF THE SYSTEM	31
8.2	LIMITATIONS OF THE SYSTEM	31
8.3	CONCLUSION AND FUTURE ENHANCEMENT	32
IX	APPENDICES	33
9.1	SAMPLE SCREENS	33
X	REFERENCES	51

LIST OF TABLES

TABLE NO	TITLE	PAGE NO.
4.1.1.1	CPR_USER	8
4.1.1.2	CPR_PRODUCT FAMILY	9
4.1.1.3	CPR_ROLE	9
4.1.1.4	CPR_USER_ROLE_REG	10
4.1.1.5	CPR_REGION	10
4.1.1.6	CPR_PRODUCT_CODE	11
4.1.1.7	CPR_PART	11
4.1.1.8	CPR_PART_MEMBERSHIP	12
4.1.1.9	CPR_REF_CATEGORY	12
4.1.1.10	CPR_PART_SERVICE_LEVEL	13
4.1.1.11	CPR_PART_PRODUCT_CODE	13
4.1.1.12	CPR_REGION_PARTMEMBERSHIP	14
4.1.1.13	LDC_PART_PRODUCT CODE	14

LIST OF FIGURES

FIGURE NO	TITLE	PAGE NO
3.3.1	STRUCTURE OF MVC	7
4.2.1.1	USE CASE DIAGRAM FOR LOGIN	15
4.2.1.2	USE CASE DIAGRAM FOR GLOBAL FAMILY APPROVAL	16
4. 2.1.3	USE CASE DIAGRAM FOR REGIONAL FAMILY APPROVAL	17
4. 2.1.4	USE CASE DIAGRAM FOR PART APPROVAL	18
4. 2.2.1	SEQUENCE DIAGRAM FOR INVALID USER LOGIN	19
4. 2.2.2	SEQUENCE DIAGRAM FOR ADDING NEW USER	20
4. 2.2.3	SEQUENCE DIAGRAM FOR SEARCHING USER	21
4. 2.2.4	SEQUENCE DIAGRAM FOR UPDATING USER	22
4. 2.3.1	ACTIVITY DIAGRAM FOR PART	23
4. 2.3.2	ACTIVITY DIAGRAM FOR PRODUCT FAMILY	24
4. 2.3.3	ACTIVITY DIAGRAM FOR FOR PART MEMBERSHIP	25
5.1	INTERNAL ARCHITECTURE OF APPLICATION	26

FIGURE NO	TITLE	PAGE NO
5.2	EXTERNAL ARCHITECTURE OF APPLICATION	26
7.4.1	TEST RESULTS	30
A.1	LOGIN SCREEN	33
A.2	PART MEMBERSHIP SCREEN	34
A.3	PART MEMBERSHIP SEARCH RESULT SCREEN	34
A.4	PART MEMBERSHIP MAINTENANCE SCREEN	35
A.5	ADD NEW PART MEMBERSHIP SCREEN	35
A.6	ADD NEW PART MEMBERSHIP RESULT SCREEN	36
A.7	PART SEARCH SCREEN	36
A.8	PART SEARCH RESULT SCREEN	37
A.9	PART UPDATE SCREEN	38
A.10	ADD NEW PART SCREEN	39
A.11	PART UPLOAD SCREEN	39
A.12	PART UPLOAD RESULT SCREEN	40
A.13	PRODUCT CODE SEARCH SCREEN	40
A.14	PRODUCT CODE SEARCH RESULT SCREEN	41

FIGURE NO	TITLE	PAGE NO
A.15	PRODUCT CODE UPDATE SCREEN	42
A.16	PRODUCT FAMILY SEARCH SCREEN	42
A.17	PRODUCT FAMILY SEARCH RESULT SCREEN	43
A.18	PRODUCT FAMILY EXPORT SCREEN	44
A.19	EXPORTED CSV FILE	44
A.20	NOTIFICATION SCREEN	45
A.21	EXPORT PART IN NOTIFICATION	45
A.22	EXPORT PART MEMBERSHIP IN NOTIFICATION	46
A.23	EXPORT PRODUCT CODE IN NOTIFICATION	46
A.24	FAMILY APPROVAL SCREEN	47
A.25	PART APPROVAL SCREEN	47
A.26	USER SEARCH SCREEN	48
A.27	ADD NEW USER SCREEN	48
A.28	USER MAINTENANCE SCREEN	49
A.29	MERCURY QUALITY CENTER - LOGIN SCREEN	50

CHAPTER 1

INTRODUCTION

1.1 COMPANY PROFILE

Accenture is a global management consulting, technology services and outsourcing company. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high performance businesses and governments. With 178,000 people in 49 countries, the company generated net revenues of US\$19.70 billion for the fiscal year ended Aug. 31, 2007.

Using industry knowledge, service-offering expertise and technology capabilities, we identify new business and technology trends and develop solutions to help clients around the world:

- Enter new markets.
- Increase revenues in existing markets.
- Improve operational performance.
- Deliver their products and services more effectively and efficiently.

We have extensive relationships with the world's leading companies and governments and work with organizations of all sizes including 94 of the Fortune Global 100 and more than two-thirds of the Fortune Global 500.

Among the many strength that distinguishes Accenture in the marketplace are our:

- Extensive industry expertise.
- Broad and evolving service offerings.
- Expertise in business transformation outsourcing.

- History of technology innovation and implementation, including our research and development capabilities, on which we spend approximately \$300 million annually.

Our Core Values have shaped the culture and defined the character of our company, guiding how we behave and make decisions:

- **Stewardship:** Building a heritage for future generations, acting with an owner mentality, developing people everywhere we are, and meeting our commitments to all internal and external stakeholders.
- **Best People:** Attracting and developing the best talent for our business, stretching our people and developing a "can do" attitude.
- **Client Value Creation:** Improving our clients' business performance, creating long-term, win-win relationships and focusing on execution excellence.
- **One Global Network:** Mobilizing the power of teaming to deliver consistently exceptional service to our clients anywhere in the world.
- **Respect for the Individual:** Valuing diversity, ensuring an interesting and inclusive environment, and treating people as we would like to be treated ourselves.
- **Integrity:** Inspiring trust by taking responsibility, acting ethically, and encouraging honest and open debate.

By enhancing our consulting and outsourcing expertise with alliances and other capabilities, we help move clients forward in every part of their businesses, from strategic planning to day-to-day operations. With more than 178,000 people in 49 countries, deep industry and business process expertise, broad global resources and a proven track record, Accenture can mobilize the right people, skills and technologies to help clients improve their performance.

1.2 PROJECT OVERVIEW

This project entitled “Claim for Mobile Part Repairs” (CPR) is a web-based application that determines the validity of the mobile hand-set and speeds up the process of servicing by providing a global access for the authorized service vendors. Earlier the servicing of mobile hand-sets and its parts are restricted to certain regions. If a particular Integrated Circuits or transistor gets damaged before the warranty period, only a particular service centre has to provide replacement and the process gets delayed without having the knowledge of its availability and hence the transportation of that particular part from available region to the required region also gets delayed. The validity of that particular part whether it is eligible for replacement needs to be maintained.

With the help of this application the service vendor can quickly determine the following:

- warranty of mobile parts
- validity of mobile parts
- servicing rights of mobile parts

Besides these the application can keep track of which particular mobile fails before its expiry and the reason behind the failure. The CPR efficiently logs several reports which can provide additional details which can help the hand-set developers to improve their standards.

The application maintains a list of users with certain privileges as some tasks can be maintained by the user with the guaranteed privileges.

The Claim for Mobile Part Repairs integrates all the sub modules such as Product Family Maintenance, Part Management, Part Membership Tracking, Product Maintenance and User Management.

CHAPTER 2

SYSTEM ANALYSIS

System analysis involves the process of diagnosing, interpreting and helps us to propose a new system. This chapter describes existing and proposed system.

2.1 EXISTING SYSTEM

The existing system is not global. If a mobile comes for the service, the customer actually was not aware of internal process. The Authorized Service Vendors (ASV) can log on to the existing system and can check the mobiles warranty based on the serial code found inside the head-set and return the possible date of service. The ASV will find out the part which causes the mal-function.

Now ASV will make use of the existing application to find whether they have enough rights to service the defective part. If they have the rights, then parts can be serviced and reproduced to customer. Suppose, if the ASV does not have rights to service, they will be forwarding it to the head office or high priority center where they will have enough rights to service the defective mobile parts.

2.2 PROPOSED SYSTEM

The main objective of proposed system is to globalize the existing application .This application helps the service vendors to know whether they are capable of providing service to mobile parts. If they are eligible to provide the services, then the application enables to provide information regarding the servicing rights. The servicing rights is provided to the authorised service vendors based on their own priority.

The proposed system tracks the parts and the location where it gets repaired. With this information, the mobile companies can increase their concentration on locations where attention is needed. This will improve the performance of service centers. The availability log can help to re-order the particular part. So that it can be able to meet future deficit of the parts such as Integrated Circuits, transistors etc.

CHAPTER 3

DEVELOPMENT ENVIRONMENT

This chapter describes the hardware and software requirements of the application.

3.1 HARDWARE REQUIREMENTS

The hardware support required for deploying the application is:

Server Configuration

Processor	:	Pentium 3/4 Processor or above
RAM	:	Minimum 512 MB
Hard Disk	:	20GB or more

Client Configuration

Processor	:	Pentium 3/4 Processor
RAM	:	Minimum 256 MB

3.2 SOFTWARE REQUIREMENTS

The software support required for deployment is:

Operating System	:	Windows XP
Front End	:	J2EE
Scripting Language	:	JavaScript
Database	:	Oracle 10g
Web Server	:	Apache Tomcat 6.0

3.2.1 TOOLS USED

Development	:	Eclipse 6.0
Procedures	:	PL/SQL developer
Testing	:	Mercury Quality Center.

3.3 PROGRAMMING ENVIRONMENT

J2EE

Java 2 Enterprise Edition covers the overall development framework under Java. Most web-based applications and portals are developed using J2EE as it provides dynamic web-applications in an efficient manner. This application is developed using the STRUTS framework of J2EE.

STRUTS

Struts is an framework which provides additional security in the data-flow of the application. It provides a three tier architecture called as MVC architecture.

MVC ARCHITECTURE

➤ **Model**

The model contains the core of the application's functionality. The model encapsulates the state of the application. Sometimes the only functionality it contains is state. It knows nothing about the view or controller.

➤ **View**

The view provides the presentation of the model. It is the look of the application. The view can access the model getters, but it has no knowledge of the setters. In addition, it knows nothing about the controller. The view should be notified when changes to the model occur.

➤ **Controller**

The controller reacts to the user input. It creates and sets the model.

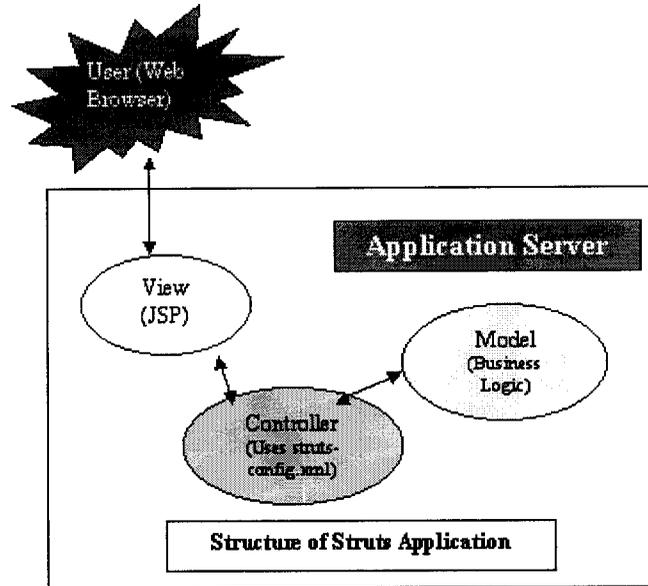


Figure 3.3.1 Structure of MVC

ORACLE

Oracle 10g is used as the database for the CPR application. Oracle 10g provides the support of efficient PL/SQL procedures to fetch bulk amount of data from the CPR database.

PL/SQL

The PL/SQL procedures are used to fetch bulk data from the database and send them to the front-end in order to display the data. PL/SQL (Procedural Language/Structured Query Language) is Oracle Corporation's proprietary procedural extension to the SQL database language. The key strength of PL/SQL is its tight integration with the Oracle database. PL/SQL supports variables, conditions, arrays, and exceptions. Implementations from version 8 of Oracle Database onwards have included features associated with object-orientation.

SQL statements can make explicit in-line calls to PL/SQL functions, or can cause PL/SQL triggers to fire upon pre-defined Data Manipulation Language (DML) events.

CHAPTER 4

SYSTEM DESGIN

This chapter describes the data model and process model of the application.

4.1 DATA MODEL

This section describes various data model used in the application.

4.1.1 TABLE STRUCTURE

The following tables have been created for Claim for Mobile Part Repairs.

Table Name: Cpr_user

Description: This table stores all the information about the user.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Cpr_user_id	Number	10	N	Primary key
2.	Cpr_user_name	Varchar2	100	N	Nil
3.	Cpr_user_pwd	Varchar2	15	N	Nil
4.	Cpr_eff_date	Date		N	Nil
5.	Cpr_exp_date	Date		N	Nil
6.	Cpr_user_email	Varchar2	50	N	Nil
7.	Cpr_first_name	Varchar2	50	N	Nil
8.	Cpr_last_name	Varchar2	50	N	Nil
9.	Last_log_date	Date		N	Nil
10.	Pwd_expiry_status	Varchar2	4	N	Nil
11.	Cpr_acc_status	Varchar2	4	N	Nil

Table 4.1.1.1 CPR_USER

Table Name: Cpr_product_family

Description: This table contains the information about the Product Family.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Product_family	Number	10	N	Primary key
2.	Pf_eff_date	Date		N	Nil
3.	Pf_exp_date	Date		N	Nil
4.	Financial_family	Varchar2	10	N	Nil
5.	Is_glob_approved	Varchar2	4	N	Nil
6.	Type_designation	Varchar2	10	N	Nil
7.	Pf_mod_date	Date		N	Nil
8.	Pf_crt_date	Date		N	Nil

Table 4.1.1.2 CPR_PRODUCT_FAMILY

Table Name: Cpr_role.

Description: This table stores all the information about the roles of the user.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Cpr_role_id	Number	10	N	Primary key
2.	Cpr_role_desc	Varchar2	10	N	Nil
3.	Cpr_eff_date	Date		N	Nil
4.	Cpr_exp_date	Date		N	Nil

Table 4.1.1.3 CPR_ROLE

Table Name: Cpr_user_role_reg.

Description: This table contains all the information about the roles and regions of the user.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Cpr_user_id	Number	10	N	Foregin key1
2.	Reg_id	Number	10	N	Foregin key2
3.	Cpr_role_id	Number	10	N	Foregin key3

Table 4.1.1.4 CPR_USER_ROLE_REG

Table Name: Cpr_region.

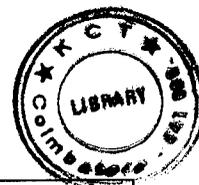
Description: This table stores all the information about the regions.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Reg_id	Number	10	N	Primary key
2.	Region_name	Varchar2	100	N	Nil
3.	Reg_eff_date	Date		N	Nil
4.	Reg_exp_date	Date		N	Nil
5.	Description	Varchar2	10	N	Nil

Table 4.1.1.5 CPR_REGION

Table Name: Cpr_product_code.

Description: This table contains the information about the regions.



P-2270

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Pc_id	Number	10	N	Primary key
2.	Product_code	Number	10	N	Nil
3.	Pc_desc	Varchar2	100	N	Nil
4.	Pc_eff_date	Date	10	N	Nil
5.	Pc_exp_date	Date		N	Nil
6.	Pf_id	Number	10	N	Foreign key
7.	Cpr_user_name	Varchar2	100	N	Nil
8.	Repair_activity	Varchar2	100	N	Nil
9.	Service_level	Varchar2	10	N	Nil
10.	Classification	Varchar2	10	N	Nil

Table 4.1.1.6 CPR_PRODUCT_CODE

Table Name: Cpr_part.

Description: This table stores all the information about the parts.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Part_id	Number	10	N	Primary key
2.	Part_number	Number	10	N	Nil
3.	Part_desc	Varchar2	10	N	Nil
4.	Part_eff_date	Date	10	N	Nil
5.	Part_exp_date	Date		N	Nil
6.	Cpr_user_name	Varchar2	100	N	Nil

Table 4.1.1.7 CPR_PART

Table Name: Cpr_part_membership.

Description: This table stores all the information about the Part Membership.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Pm_id	Number	10	N	Primary key
2.	Pf_id	Number	10	N	Foregin key1
3.	Part_id	Number	10	N	Foregin key2
4.	Pm_eff_date	Date			Nil
5.	Product_family	Varchar2	10		Nil
6.	Part_number	Number	10	N	Nil
7.	Service_level	Varchar2	10	N	Nil
8.	Pm_crt_date	Date		N	Nil
9.	Pm_mod_date	Date		N	Nil

Table 4.1.1.8 CPR_PART_MEMBERSHIP

Table Name: cpr_ref_category.

Description: This table contains all the information about the Reference Category.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Rc_id	Number	10	N	Primary key
2.	Category_type	Number	10	N	Nil
3.	Category_code	Varchar2	100	N	Nil
4.	Category_desc	Number	10	N	Nil
5.	Rc_eff_date	Date		N	Nil
6.	Rc_exp_date	Date		N	Nil

Table 4.1.9 CPR_REF_CATEGORY

Table Name: cpr_part_service_level.

Description: This table stores all the information about the Reference Category.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Psl_id	Number	10	N	Primary key
2.	Part_id	Number	10	N	Foreign key1
3.	Part_number	Number	100	N	Nil
4.	Part_desc	Vachar2	200	N	Nil
5.	Service_level	Varchar2	10	N	Nil
6.	Repair_activity	Varchar2	10	N	Nil
7.	Reg_id	Number	10	N	Foreign key2
8.	Part_eff_date	Date		N	Nil
9.	Part_exp_date	Date		N	Nil

Table 4.1.1.10 CPR_PART_SERVICE_LEVEL

Table Name: cpr_part_product_code.

Description: This table contains all the information about the product code associated with parts.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Part_id	Number	10	N	Foreign key1
2.	Pc_id	Number	10	N	Foreign key2
3.	Ppc_eff_date	Date		N	Nil
4.	Ppc_exp_date	Date		N	Nil

Table 4.1.1.11 CPR_PART_PRODUCT_CODE

Table Name: cpr_region_partmembership.

Description: This table stores all the information about the product code associated with part.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Reg_pm_id	Number	10	N	Primary key
2.	Is_valid	Varchar2	10	N	Nil
3.	Is_reg_approved	Varchar2	10	N	Nil
4.	Reg_pm_eff_date	Date		N	Nil
5.	Reg_pm_exp_date	Date		N	Nil
6.	Pm_id	Number	10	N	Foreign key1
7.	Reg_id	Number	10	N	Foreign key2

Table 4.1.1.12 CPR_REGION_PARTMEMBERSHIP

Table Name: ldc_part_product code.

Description: This table contains all the information about the pooling data for part_product_code.

S. No.	Field/column name	Data type	Data format	Permit nulls? (y/n)	Constraint
1.	Parent_name	Varchar2	10	N	Nil
2.	Child_name	Varchar2	10	N	Nil
3.	Refrence_1	Varchar2	10	N	Nil

Table 4.1.1.13 LDC_PART_PRODUCT CODE.

4.2 PROCESS MODEL

This section describes use case diagram, sequence diagram and activity diagram of the application.

4.2.1 USE CASE DIAGRAM

Use case diagrams give a picture of the different scenarios wherein users interact with the different components of the system. It gives a general idea on the requirements to be addressed by the system and the sequence of operations happening.

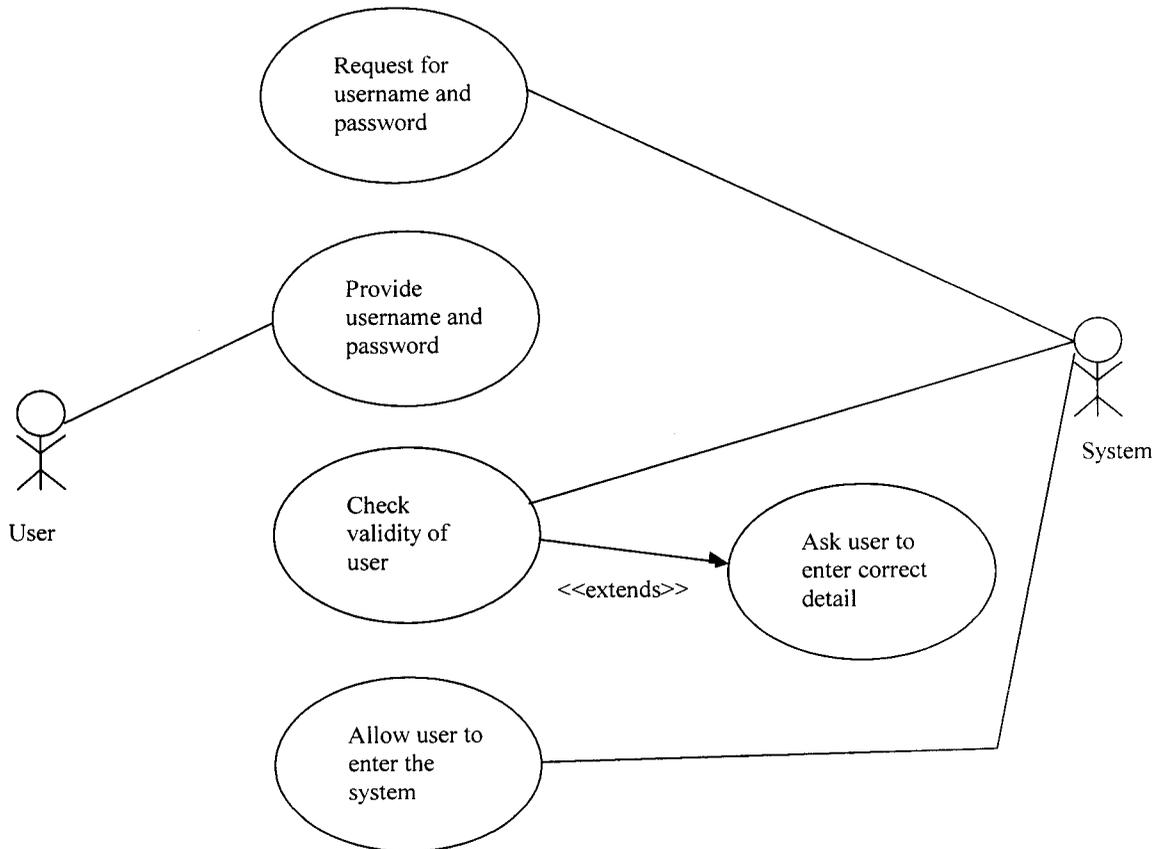


Figure 4.2.1.1 Use Case Diagram for Login

The Figure 4.2.1.1 describes how the user login the system. First the system will ask for the user details and hence user will provide their details. The input data will be validated and after the validation the user will allowed to enter into the system.

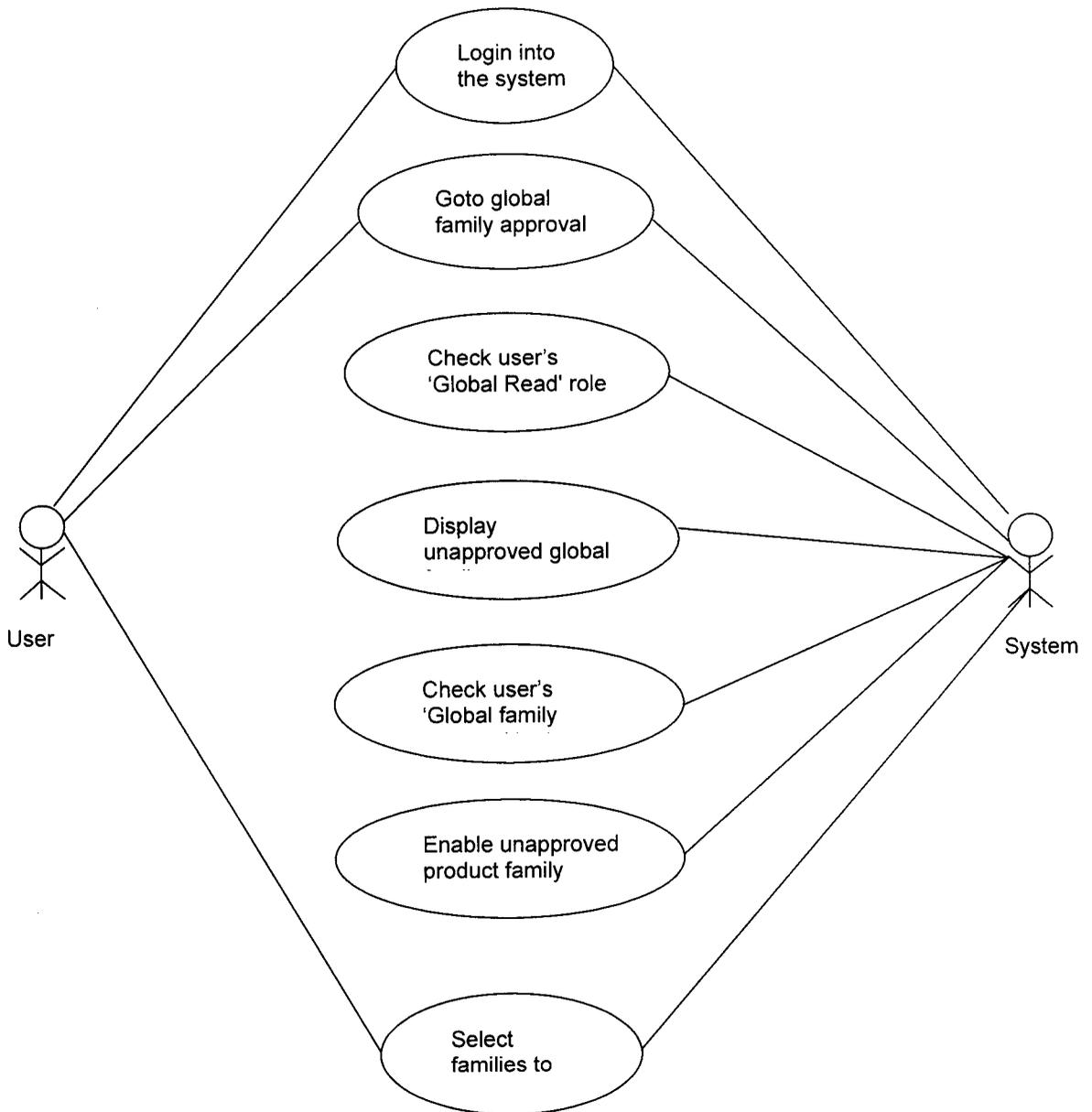


Figure 4.2.1.2 Use Case Diagram for Global Family Approval

The Figure 4.2.1.2 describes how the user approves the product family. To approve the Product Family, the user has to select the unapproved product families which need to get approved. After selecting the unapproved product family clicking on the approve button will approve all the unapproved product family.

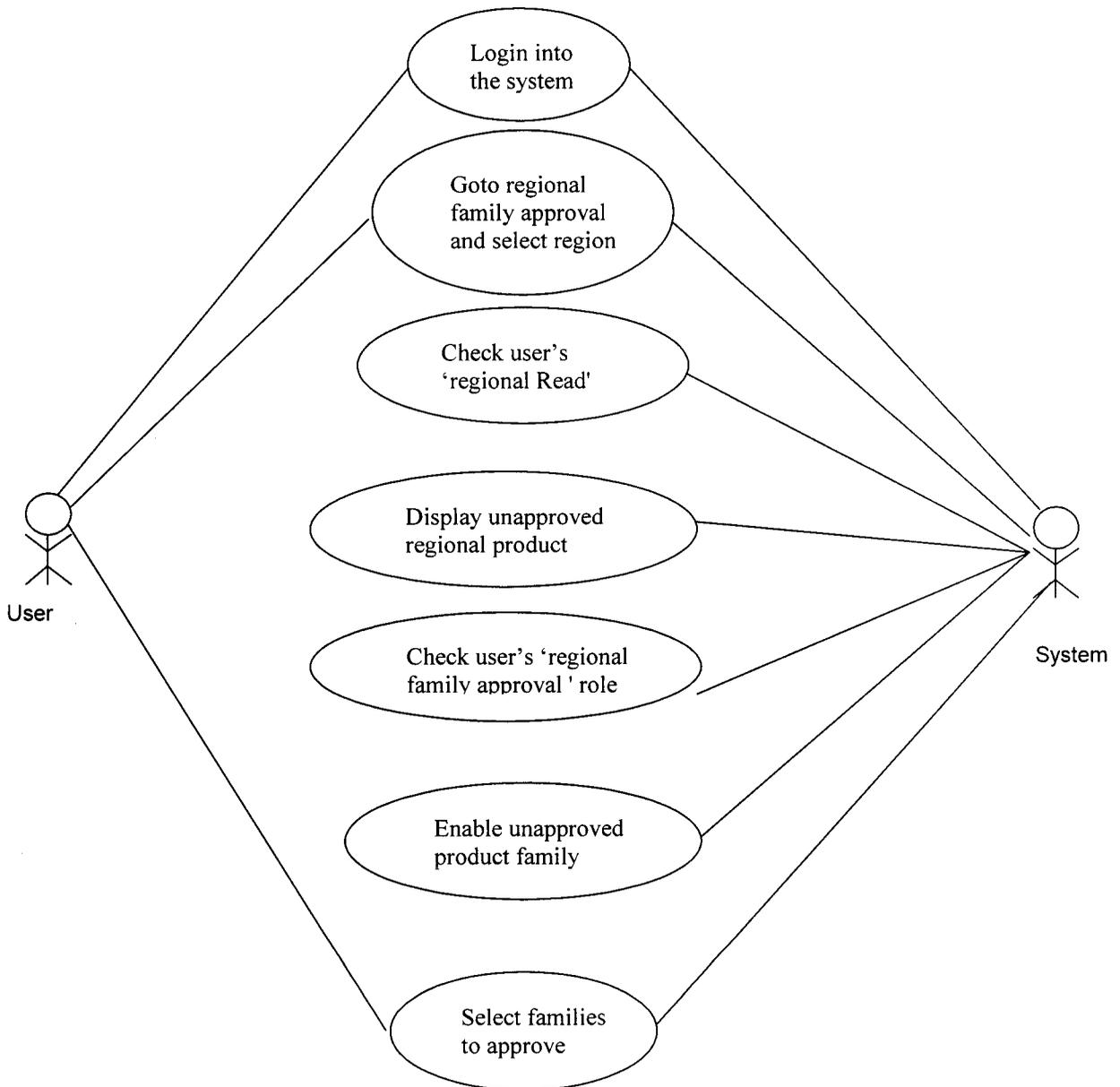


Figure 4.2.1.3 Use Case Diagram for Regional Family Approval

The Figure 4.2.1.3 describes how the user approves the product family. To approve the Product Family, the user has to select the unapproved product families and also has to select the region. After selecting the unapproved product family clicking on the approve button will approve all the unapproved product family for the particular region.

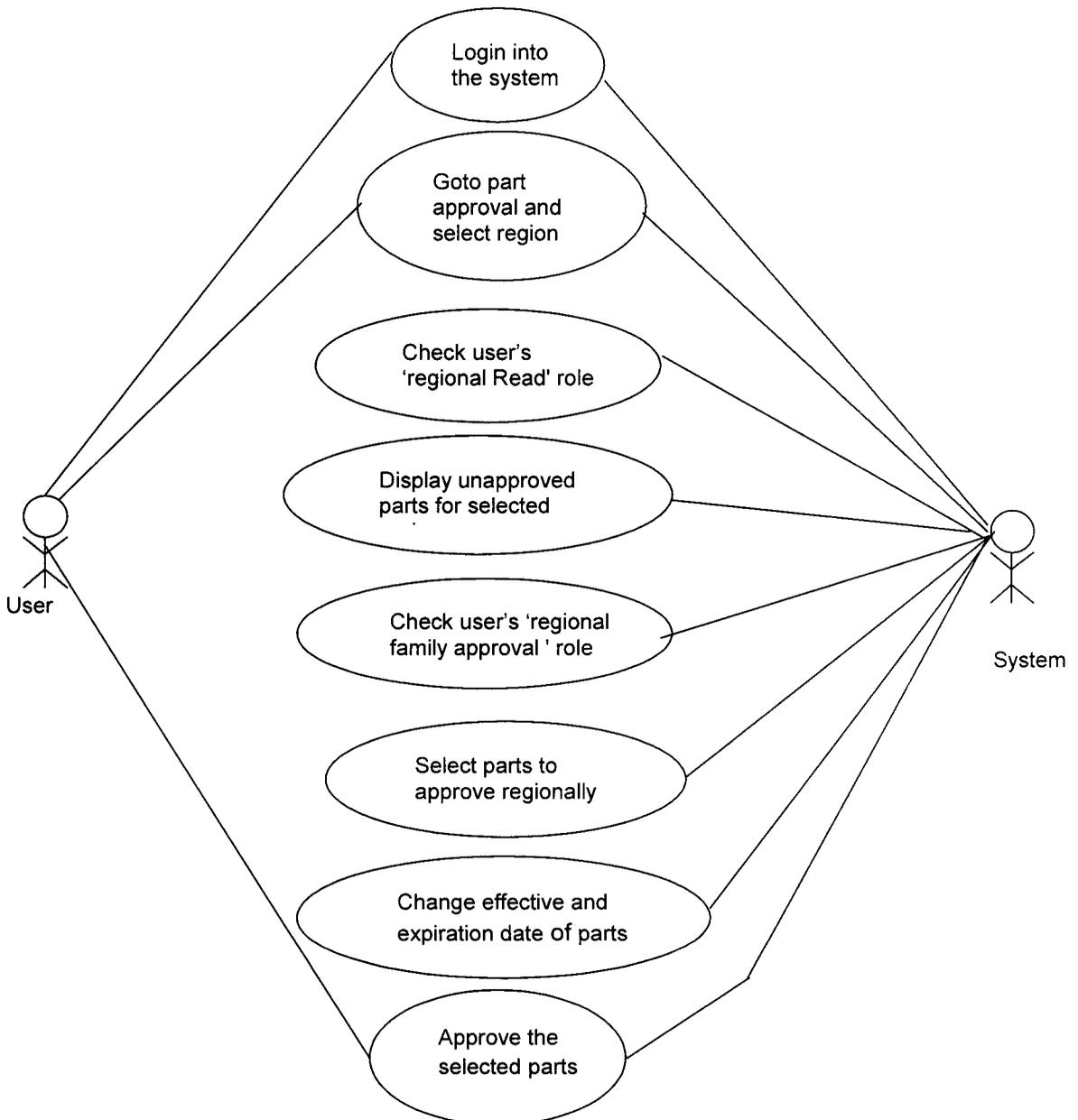


Figure 4.2.1.4 Use Case Diagram for Part Approval

The Figure 4.2.1.4 describes how the user approves the part. To approve the part, the user must contain the regional family approval and also the user has to select the unapproved parts. After selecting unapproved parts clicking on the approve button will approve all the unapproved part.

4.2.2 SEQUENCE DIAGRAM

Sequence diagram is an easy and intuitive way of describing the behavior of a system by viewing the interaction between the system and environment. A sequence diagram shows an interaction arranged in time sequence.

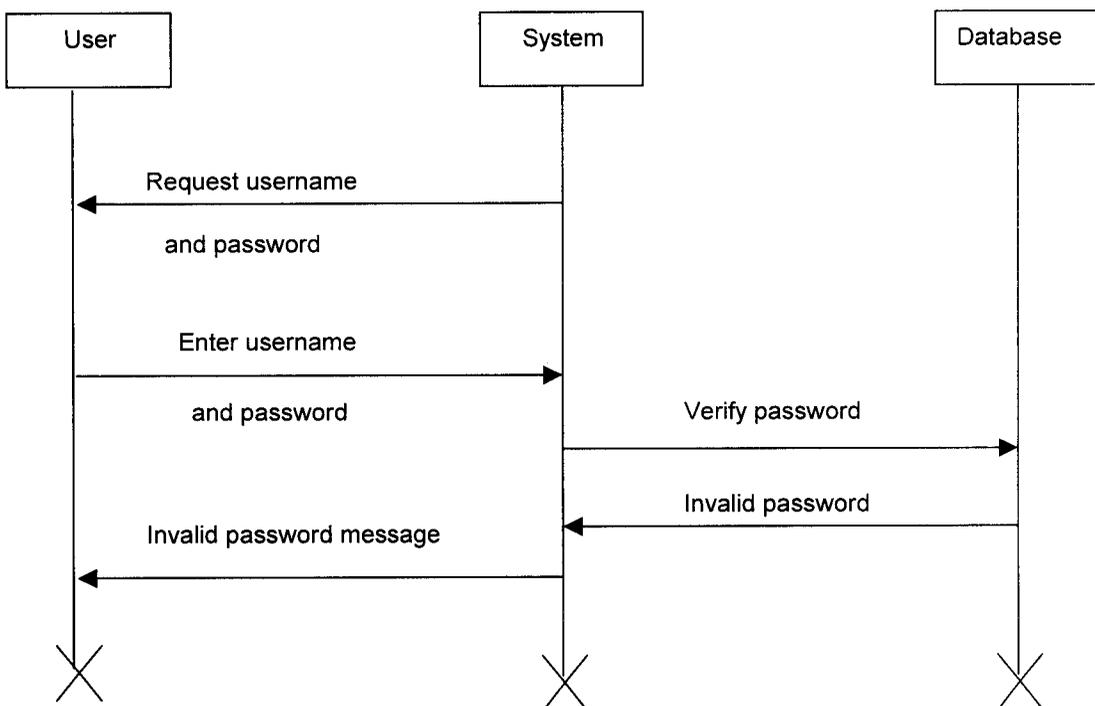


Figure 4.2.2.1 Sequence Diagram for Invalid User Login

The Figure 4.2.2.1 explains the steps that the user followed to encounter the Invalid Login. If either username or password or both username and password goes wrong then the system will not allow to login the system. It displays the corresponding error message which helps the user to identify the mistake.

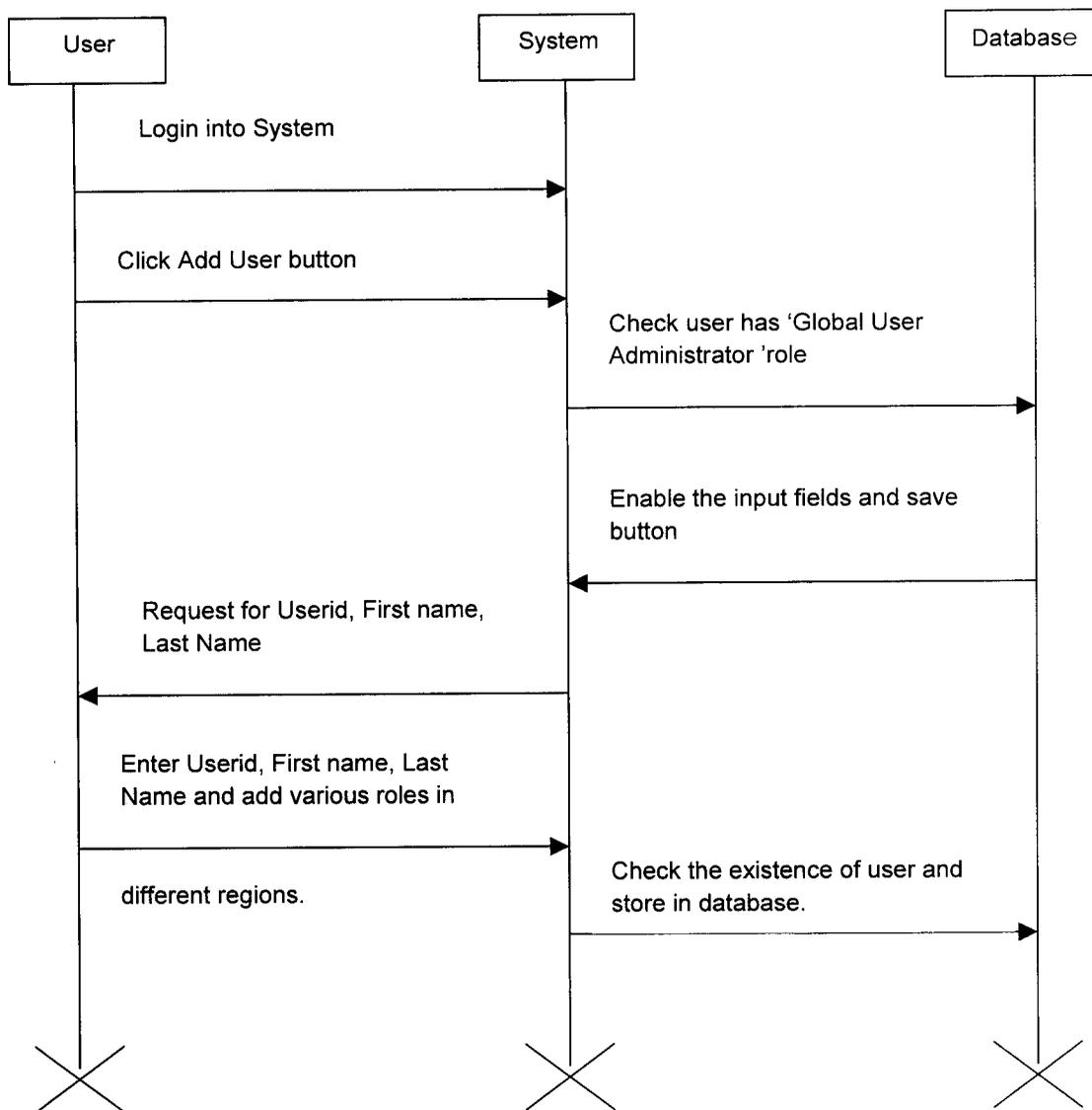


Figure 4.2.2.2 Sequence Diagram for Adding New User

The Figure 4.2.2.2 explains the steps that the user followed to add the new user. The user who logged in can be able to add the new user only if he have the appropriate roles such as Global User Administrator. Once the user enter the details of new user, then existence of the user details will be checked in the database to avoid duplication and then new user will be added in the database.

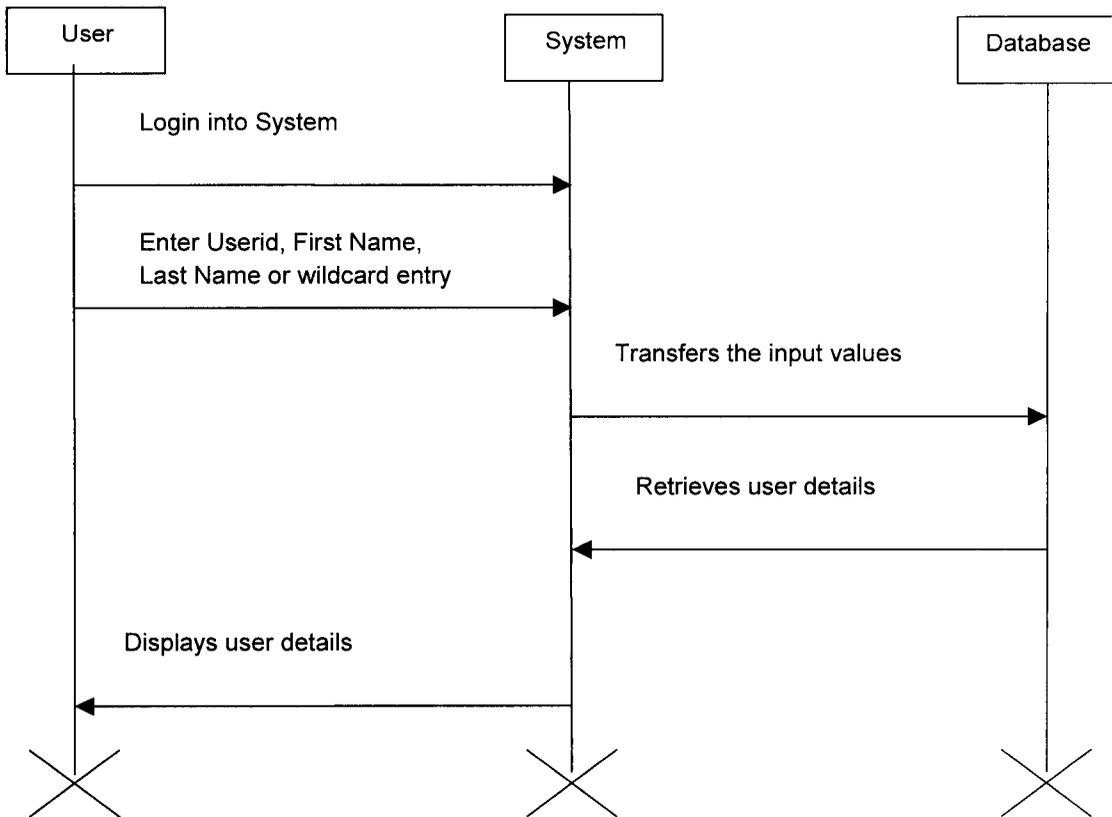


Figure 4.4.2.3 Sequence Diagram for Searching User

The Figure 4.4.2.3 explains the steps that the user followed to search the user details. User details will be provided and then these input values will be checked with the database values. If the matching records exist in the database, then the system will display the details of user along with the roles of user in various regions.

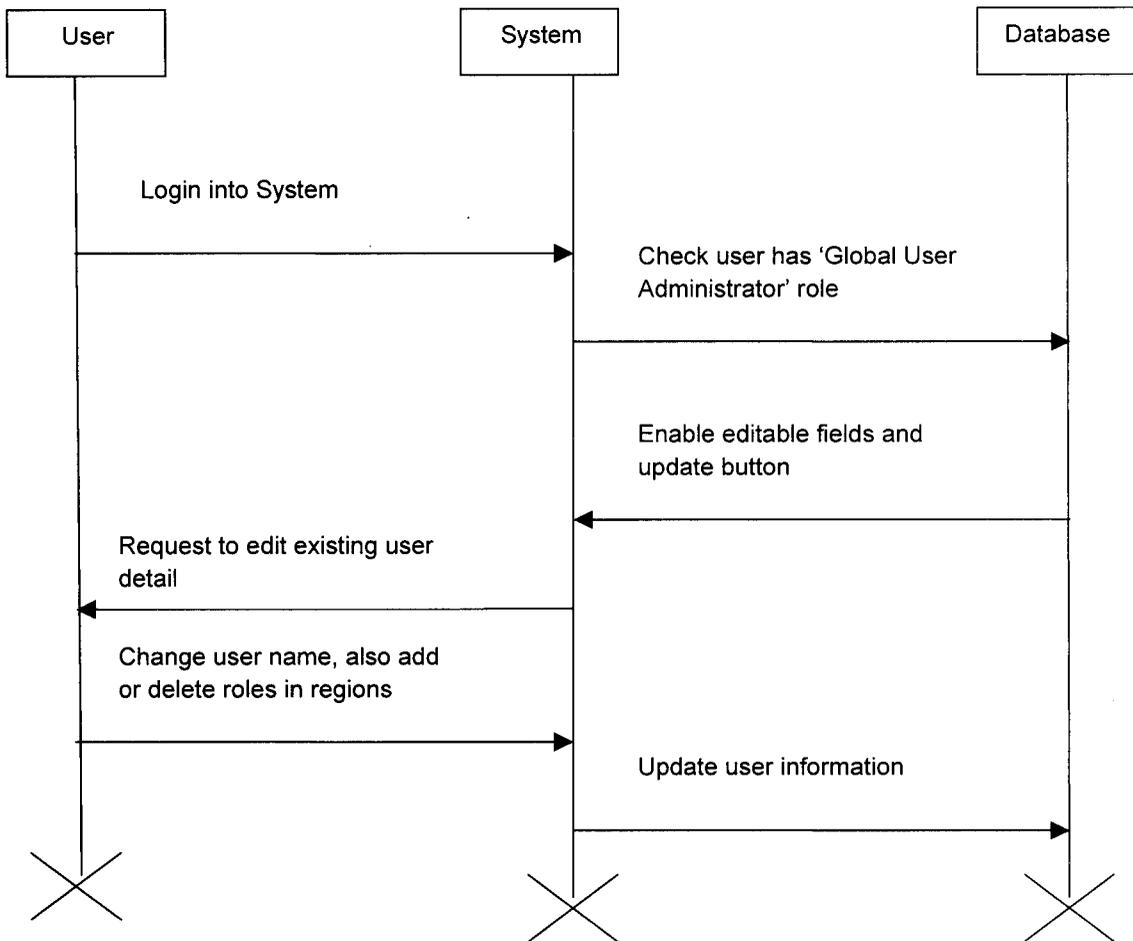


Figure 4.2.2.4 Sequence Diagram for Updating User

The Figure 4.2.2.4 explains the steps that the user followed to update the existing user details. One can update the details of user only if the user has Global user administrator. If the user has required role to update, the user can change the fields and then clicking on the update button will enable to perform the validation of new values. And if the new values satisfy the validation, then the data will be updated in the database.

4.2.3 ACTIVITY DIAGRAM

Activity diagram is used to show the internal state of an object but the external events may appear in the diagram. In this diagram, activities represents the performance of the operations and transitions are triggered by the completion of the operations.

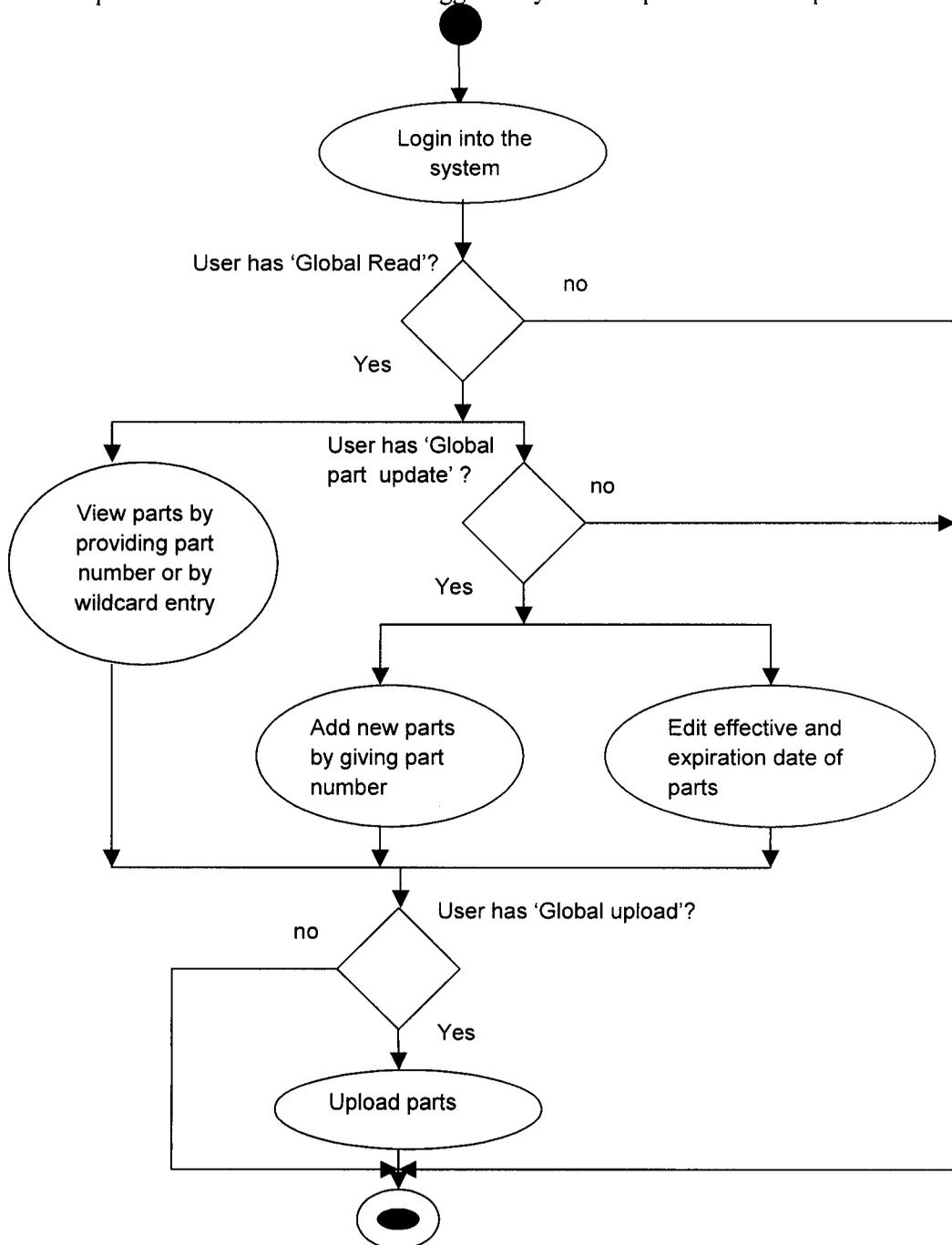


Figure 4.2.3.1 Activity diagram for Part.

The Figure 4.2.3.1 explains the operations that are carried in the part. In part the user can view the part details, add new part details, update the effective and expiration dates of part and also upload the parts to the database.

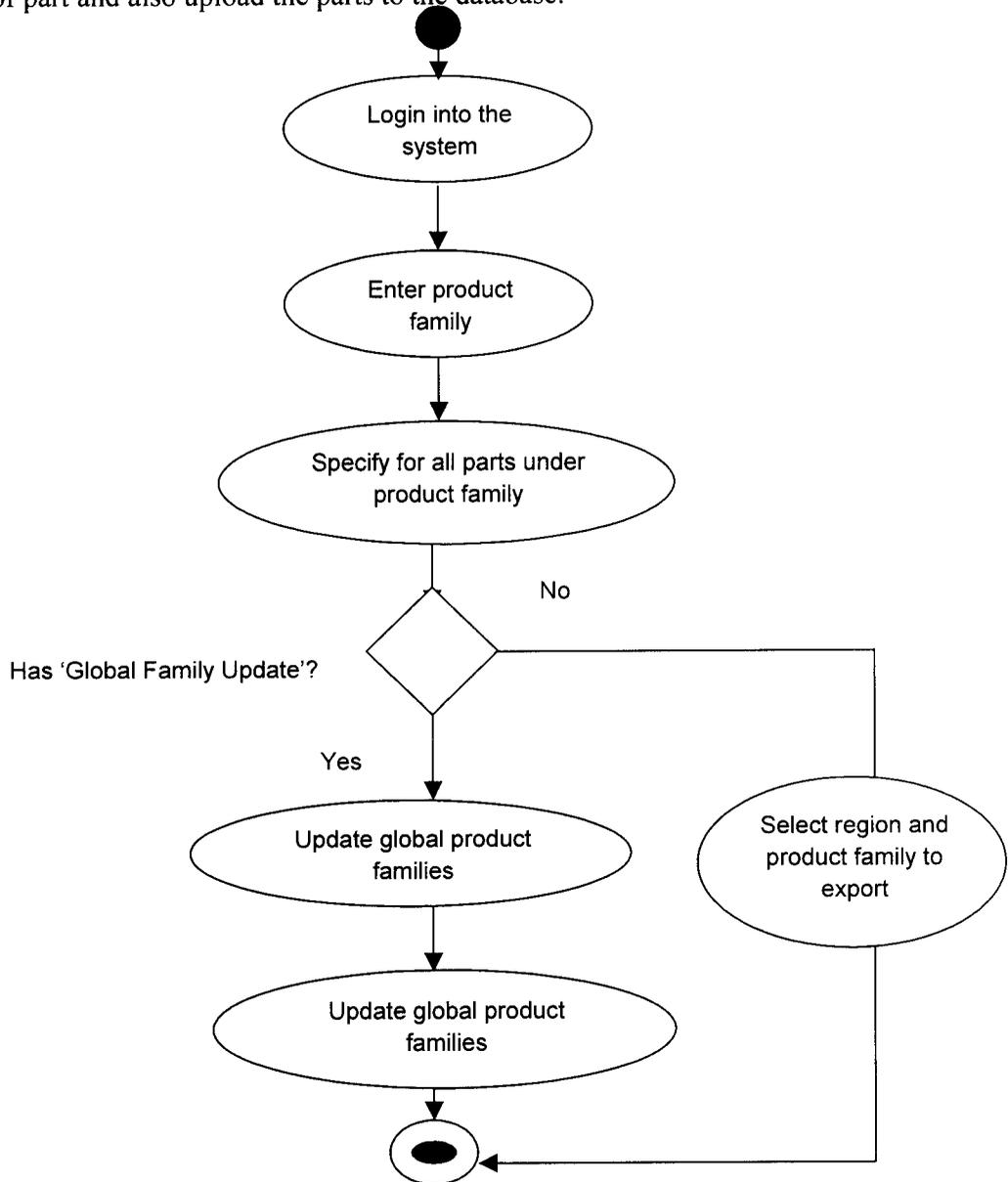


Figure 4.2.3.2 Activity diagram for Product Family

The Figure 4.2.3.2 explains the operations that are carried in the product family. In product family the user can view the product family details with their associated parts and product codes. Update the effective and expiration of Product family and also export product family details.

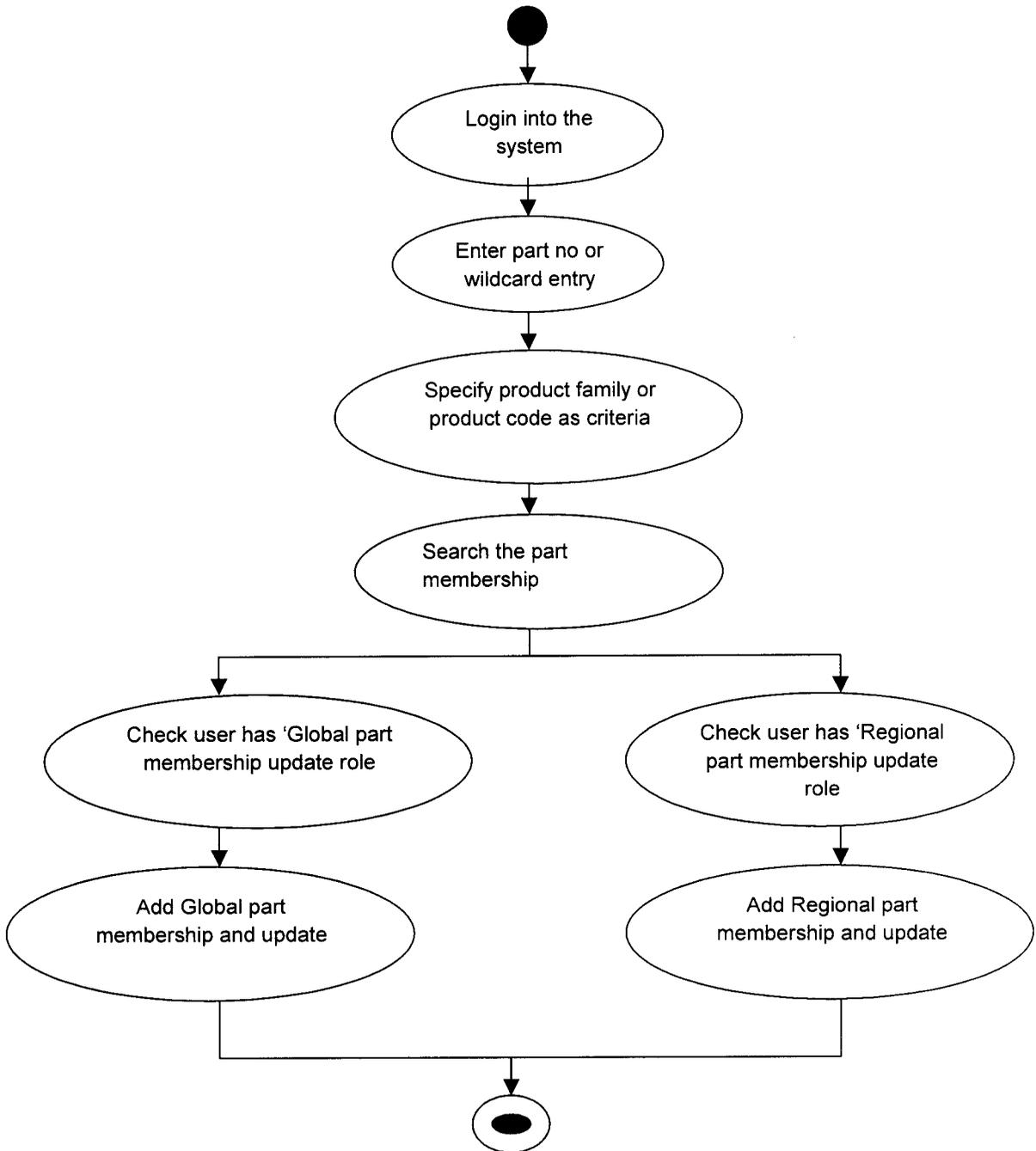


Figure 4.2.3.3 Activity diagram for Part Membership.

The Figure 4.2.3.3 explains the operations that are carried in the part membership. In part membership the user can view the part membership details, add new part membership details and update the effective and expiration of part Membership.

CHAPTER 5

ARCHITECTURE DETAILS

This chapter describes internal and external architecture of the application.

5.1 INTERNAL ARCHITECTURE

The internal architecture of application is represented in figure 5.1.

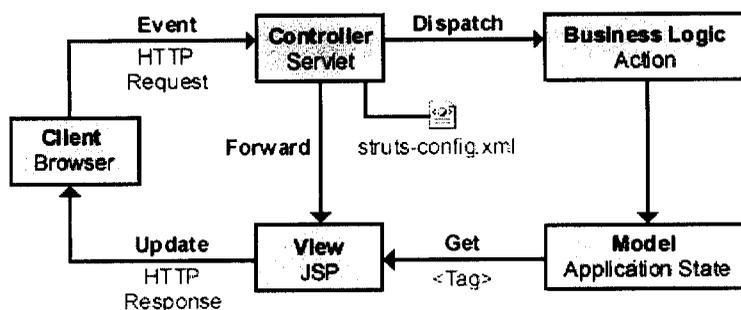


Figure 5.1 Internal architecture of Application

5.2 EXTERNAL ARCHITECTURE

The external architecture of application is represented in figure 5.2.

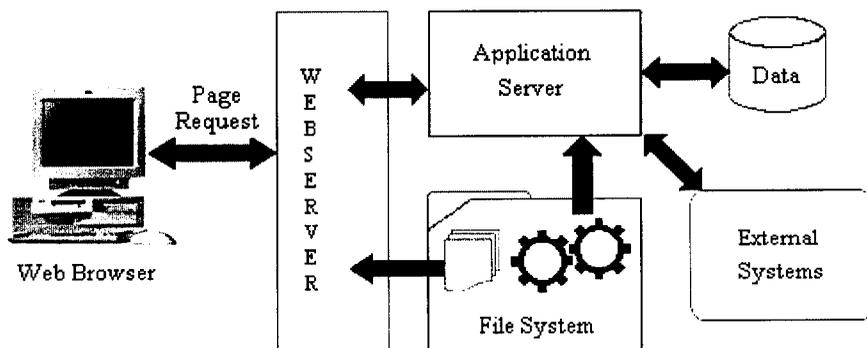


Figure 5.2 External architecture of Application

CHAPTER 6

SYSTEM IMPLEMENTATION

This chapter describes the implementation process of the application.

6.1 IMPLEMENTATION PROCESS

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 an apt framework and programming language, which would solve the specific problem the best way. 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.

SYSTEM VERIFICATION

In Claim for Mobile Part Repairs, 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.

SYSTEM VALIDATION

In this project, Validation 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 Claim for Mobile Part Repairs 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.

CHAPTER 7

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 any 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 main types of tests carried out on Claim for Mobile Part Repairs are:

- Unit Test
- Integration Test
- System Test

7.1 Unit Testing

Module or Unit Testing is the process of testing all the program units that make up a system. Unit testing focuses on an individual module thus allowing one to uncover all the errors made logically and while coding in the module.

In Claim for Mobile Part Repairs each page is tested separately as a unit. Initially the flow of control and data through that page is checked. When considering a module as a unit, the flow of data and control through the whole module is tested. The result is stored in the test plan. In a page, each control is further tested in unit testing. The process is done in all the pages of the system. Once the errors are rectified, the testing procedure is repeated with same test cases to ensure this hasn't produced new errors. Hence this is a continuous process.

7.2 Integration Testing

Integration testing tests the process of integrating the various modules to form the completed system. Integration starts with a set of units each individually tested in isolation and ends when the entire application has been built. Integration testing verifies that the combined units function together correctly. It facilitates in finding problem that occur at interface or communication between the individual parts.

Claim for Mobile Part Repairs followed top-down integration testing. Modules were linked to the main menu in a sequence as required in the real time operating mode of the system. This process is continued from the page level to module level, finally to the system level. In the final stage, the whole system is taken together and tested for integration. This tests if the change has affected any part of Claim for Mobile Part Repair negatively after the change was made. The whole set of test cases need to be run again to do the regression testing.

7.3 System Testing

System testing is actually a serious of different tests, whose primary purpose is to fully exercise the computer-based system. This helps in verifying that all the system elements have been properly integrated and perform the allocated functions. It verifies the entire product after having integrated all software and hardware components, and validates it according to the original project requirement.

7.3.1 Security Testing

Security testing is important in system testing. Testing is done to ensure that a user with respective rights can only view the various forms and reports presented by Claim for Mobile Part Repairs. If users try to perform something beyond his assigned rights corresponding messages should be displayed. Then the system displays in such cases displays an error message.

Another security issue involves the sensitive data in the system. The system is highly secure with authentication fixed at various levels of the hierarchy.

7.3.2 Stress Testing

Stress Testing executes a system in a manner that demands resources in abnormal quantity, frequency or volume. Claim for Mobile Part Repairs was stress tested by all internal users of authorized service vendors in the project and accessing simultaneously to various modules in the system.

7.4 TESTING TOOL

The testing is carried out with the help of the tool Mercury Quality Center .

The screenshot displays the Mercury Quality Center interface. The main window shows a table of test results under the 'Execution Grid' tab. The table has columns for Plan, Test Name, Plan Type, Status, Planned For, Responsible Tester, Exec Date, and TI. The test results are as follows:

Plan	Test Name	Plan Type	Status	Planned For	Responsible Tester	Exec Date	TI
	(1) Campaign Creation	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Comparing Views	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Create Announcements	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Access Control	VARI-XP-TEST	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Account Administration	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) User Management	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Key Indicators	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Login History	SYSTEM-TEST	Passed	e0251954	e0251954	3/11/2008	1:1
	(1) Importing Campaigns	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1
	(1) Auditing Campaign Changes and D	MANUAL	Passed	e0251954	e0251954	4/9/2008	1:1

The interface also shows a 'Last Run Result' section at the bottom, indicating 'Test 1 of 10' and 'Server Time: 9:09 AM 4/10/2008'.

Figure 7.4.1 Test Results

The tester can log the bugs with priority and the development team can log-on to view those bugs and fix them. The figure 7.4.1 displays the test results found during the system testing.

CHAPTER 8

PERFORMANCE AND LIMITATIONS

This chapter describes the merits and demerits of the application.

8.1 MERITS OF THE SYSTEM

The merits of the system are as follows:

- Simple and easy to use.
- Grouping and authentication.
- Serves as the data source for several other applications.
- Multi Database support.
- Flexible and Scalable.
- Complaint with JDBC-ODBC Data Management Technique.
- Efficient data security and integrity.
- Quickens the servicing process.

8.2 LIMITATIONS OF THE SYSTEM

The limitations of the system are as follows:

- Updating the database is tedious
- Access and retrieval of information is an overhead.
- Generation of reports is difficult, since various excel sheets are to be verified.

8.3 CONCLUSION AND FUTURE ENHANCEMENT

CONCLUSION

The Claims for Mobile Part Repairs enables the Authorized Service Vendors to get rid of a very tedious and time consuming process. This project determines the validity of the mobile hand-set and speeds up the process of servicing by providing a global access for the authorized service vendors. The service vendor can quickly determine the warranty of mobile parts, validity of mobile parts and servicing rights of mobile parts.

The information in the system should be maintained upto date with periodic updates. The security feature of the system allows the Authorized service vendors with appropriate rights to make updates to important and sensitive data. It prevents unauthorized access to important data.

Thus Claim for Mobile Part Repairs increases the efficiency, performance of the authorized service vendors and also helps the mobile company to concentrate on their products.

FUTURE ENHANCEMENT

The following features listed below if introduced could benefit the users of the system.

In next version of the system, feedback from the authorized service vendors can be collected. In feedback Module, the Authorized service vendors can log the problems what they experienced during the repair activities of handsets.

With help of the feedback, the mobile company will come to know the problems and hence they can provide the effective solution. The availability of mobile parts used for repair activities in each service center will be tracked and if it goes below the minimum level, then reordering of parts can be done through the application.

CHAPTER 9

APPENDICES

9.1 SAMPLE SCREENS

NOKIA
Connecting People

CLAIM FOR MOBILE PART REPAIRS

Login

User ID

User

Password

●●●●●●●●

Submit

Cancel

Login Problems?

If you are having problems logging in, [click here](#) for more

[Home](#) | [legal notice](#) | [privacy policy](#)

Figure A.1 Login Screen

[Site Home](#) [Approval](#) [Product Family](#) **Part Membership** [Part](#) [Product Code](#) [Notification](#) [Users](#)

Part Number:

Select Criteria: Product Family Product Code

Figure A.2 Part Membership Screen

[Site Home](#) [Approval](#) [Product Family](#) **Part Membership** [Part](#) [Product Code](#) [Notification](#) [Users](#)

Part Number:

Select Criteria: Product Family Product Code

Part Number: **0730634**

Expiration Date:

Expire part memberships after the above date.

<< < 1 > >>

Care BOR	Part Number	Product Family	CCT Ref	Effective Date	Expiration Date	Edit Record
	0730634	1JFQ	REF2, REF3	01/01/1903	02/27/2008	View/Edit
	0730634	4BC5	Ref8	01/01/1903	02/27/2008	View/Edit

Figure A.3 Part Membership Search Result Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
Part Number	0730634						
Product Family	1JFQ						
Product Code							
CCT Ref	REF2,REF3						
Part Membership Effective Date	01/01/1903	...					
Part Membership Expiration Date	02/27/2008	...					
<input type="button" value="Update"/>		<input type="button" value="Cancel"/>					
<input type="button" value="Add New Part Membership"/>							

Figure A.4 Part Membership Maintenance Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
* Part Number	<input type="text"/>						
<input checked="" type="radio"/> Product Family	<input type="text"/>						
<input type="radio"/> Product Code	<input type="text"/>						
CCT Ref	<input type="text"/>						
Part Membership Effective Date	<input type="text"/>	...					
Part Membership Expiration Date	<input type="text"/>	...					
<input type="button" value="Submit"/>		<input type="button" value="Cancel"/>					

Figure A.5 Add New Part Membership Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
* Part Number	<input type="text" value="1111111"/>						
Product Family	<input type="text" value="1JFQ"/>						
Product Code	<input type="text" value="REF1_REF4"/>						
CCT Ref	<input type="text" value="REF1_REF4"/>						
Part Membership Effective Date	<input type="text" value="01/01/1903"/>	<input style="float: right;" type="button" value="..."/>					
Part Membership Expiration Date	<input type="text" value="02/27/2008"/>	<input style="float: right;" type="button" value="..."/>					
<input type="button" value="Update"/>		<input type="button" value="Cancel"/>					
<input type="button" value="Add New Part Membership"/>							

Figure A.6 Add New Part Membership Result Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
Part Number	<input type="text" value="1111111"/>						
Type	<input type="text" value="SCREW"/>						
<input type="button" value="Search"/>		<input type="button" value="Cancel"/>					
<input type="button" value="Add New Part"/>		<input type="button" value="Upload"/>					

Figure A.7 Part Search Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users								
* Part Number	<input type="text" value="1111111"/>														
* Description	<input type="text" value="fgh"/>														
Type	<input type="text" value=""/>														
Classification	<input type="text" value="fghfh"/>														
Owner	<input type="text" value="fghfg"/>														
Global Effective Date	<input type="text" value="01/01/2003"/>						<input type="button" value="..."/>								
Global Expiration Date	<input type="text" value="01/22/2005"/>						<input type="button" value="..."/>								
	Product Family <input type="text" value=""/>														
	Product Code <input type="text" value="1JFQ"/>														
<input type="button" value="Update"/>		<input type="button" value="Cancel"/>													
<input type="button" value="E"/>		<input type="button" value="MEA"/>		<input type="button" value="APAC"/>		<input type="button" value="NAM"/>									
		<input type="button" value="CHINA"/>		<input type="button" value="LTA"/>											
<table border="1"> <thead> <tr> <th>Service Level</th> <th>Repair Activity</th> <th>Effective Date</th> <th>Expiration Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SO</td> <td><input type="text" value="01/01/2003"/></td> <td><input type="text" value="01/22/2005"/></td> </tr> </tbody> </table>								Service Level	Repair Activity	Effective Date	Expiration Date	1	SO	<input type="text" value="01/01/2003"/>	<input type="text" value="01/22/2005"/>
Service Level	Repair Activity	Effective Date	Expiration Date												
1	SO	<input type="text" value="01/01/2003"/>	<input type="text" value="01/22/2005"/>												
<input type="button" value="Search"/>		<input type="button" value="Cancel"/>													
<input type="button" value="Add New Part"/>															

Figure A.8 Part Search Result Screen



Claim For Mobile Part Repairs -Part update

Site Home Approval Product Family Part Membership Part Product Code Notification Users

* Part Number: 0009990
 * Description: erfwe
 Type:
 Classification: wefwe
 Owner: wef
 Global Effective Date: 02/08/2008
 Global Expiration Date: 02/28/2008
 Product Family:
 Product Code: 1JFQ

E MEA APAC NAM CHINA LTA

Service Level Repair Activity Effective Date

Expiration Date

4 MR 02/25/2008

02/28/2008

February, 2008							
Today							
?	<<	<	>	>>			*
wk	Sun	Mon	Tue	Wed	Thu	Fri	Sat
4						1	2
5	3	4	5	6	7	8	9
6	10	11	12	13	14	15	16
7	17	18	19	20	21	22	23
8	24	25	26	27	28	29	
Select date							

<<< 1 >>>

Product Family	Financial Family	Effective Date	Expiration Date	Part Membership
1JFQ	S001JFQ	01/02/1900	12/23/2055	View/Edit
4BC5	S004BC5	01/01/1900	12/31/9999	View/Edit

Figure A.9 Part Update Screen

NOKIA
Connecting People

Claim For Mobile Part Repairs-Add Part

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
-----------	----------	----------------	-----------------	------	--------------	--------------	-------

* Part Number 0009992

* Description PWC

Type SCREW

Classification daa

Owner component

Global Effective Date 10/07/2007

Global Expiration Date 03/26/2009

* Service Level 2

* Repair Activity MR

Product Family

Product Code 1 JFQ

E MEA APAC NAM CHINA LTA

Submit Cancel

Figure A.10 Add New Part Screen

NOKIA
Connecting People

Claim For Mobile Part Repairs -Upload part

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
-----------	----------	----------------	-----------------	------	--------------	--------------	-------

Part Number

Type

Search Cancel

Add New Part Upload

My JSP 'PopUp.jsp' starting page - Micr...

Browse

submit Cancel

Done Local intranet

Figure A.11 Part Upload Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
---------------------------	--------------------------	--------------------------------	---------------------------------	----------------------	------------------------------	------------------------------	-----------------------

Part Number

Type



Figure A.12 Part Upload Result Screen

Site Home	Approval	Product Family	Part Membership	Part	Product Code	Notification	Users
---------------------------	--------------------------	--------------------------------	---------------------------------	----------------------	------------------------------	------------------------------	-----------------------

Product Code

Classification

Figure A.13 Product Code Search Screen



Claim For Mobile Part Repairs -Product code Search

[Site Home](#)
[Approval](#)
[Product Family](#)
[Part Membership](#)
[Part](#)
[Product Code](#)
[Notification](#)
[Users](#)

Product Code 00%

Classification %

<< < 1 > >>

Product Code	Description	Type	Classification	Effective Date	Expiration Date	Product Family	Part Membership
002B8FD	RM-242 CTR RED EURO-A LATIN	PHONE	Customer Transceiver	02/02/1901	12/23/2055	1JFQ	View/Edit
002B8F2	RM-246	PHONE	Customer Transceiver	02/02/1901	12/23/2055	1JFQ	View/Edit
002C8F1	RM-245	PHONE	Basic Transceiver	03/01/1907	06/30/2008	1ABC	View/Edit

Figure A.14 Product Code Search Result Screen



Claim For Mobile Part Repairs-Product Code Update

[Site Home](#) [Approval](#) [Product Family](#) [Part Membership](#) [Part](#) [Product Code](#) [Notification](#) [Users](#)

Product Code 002B8F0
Description RM-242 CTR RED EURO-A LATIN
Type
Classification Customer Transceiver
Product Family
Product Code Effective Date 02/13/1901
Product Code Expiration Date 12/23/2055

February, 1901

Today

wk	Sun	Mon	Tue	Wed	Thu	Fri	Sat
4						1	2
5	3	4	5	6	7	8	9
6	10	11	12	13	14	15	16
7	17	18	19	20	21	22	23
8	24	25	26	27	28		

Time: 00 : 00
Select date

1JFQ - Family BOR

Care BOR	Part Number	Description	Regions					Part Type	Classification	Part Owner	CCT Ref	Global Effective Date	Glol Exp
			APAC	CHINA	E	LTA	MEA						
	0009990	erfwe	*	*	*	*	*	AAA	wefwe	wef	02/08/2008	02/	
*	0009991	PWC	*	*	*	*	*	SCREW	daa	Component	02/01/2006	02/	
	0009992	PWC	*	*	*	*	*	SCREW	daa	component	10/17/2007	03/	
	0123456	dgdg	*	*	*	*	*	AAA	dg	sdf	02/22/2008	02/	

Figure A.15 Product Code Update Screen



Claim For Mobile Part Repairs-Product Family Search

[Site Home](#) [Approval](#) [Product Family](#) [Part Membership](#) [Part](#) [Product Code](#) [Notification](#) [Users](#)

Product Family 1%

Figure A.16 Product Family Search Screen

Product Family 1%

Search

Cancel

<< 1 2 3 4 5 >>

Product Family Financial Family Effective Date Expiration Date Product Code Count Part Count Part Membership

100BC101	S00100BC101	01/01/1900	12/09/2999	0	0	View/Edit
101BC102	S00101BC102	01/01/1900	12/31/9999	0	0	View/Edit
102BC103	S00102BC103	01/02/1900	12/28/2999	0	0	View/Edit
103BC104	S00103BC104	01/01/1900	12/31/9999	0	0	View/Edit
104BC105	S00104BC105	01/01/1900	12/31/9999	0	0	View/Edit
105BC106	S00105BC106	01/01/1900	12/31/9999	0	0	View/Edit
106BC107	S00106BC107	01/01/1900	12/31/9999	0	0	View/Edit
107BC108	S00107BC108	01/01/1900	12/31/9999	0	0	View/Edit
108BC109	S00108BC109	01/01/1900	12/31/9999	0	0	View/Edit
109BC110	S00109BC110	01/01/1900	12/31/9999	0	0	View/Edit
10BC11	S0010BC11	01/01/1900	12/31/9999	0	0	View/Edit

Figure A.17 Product Family Search Result Screen

Site Home Approval **Product Family** Part Membership Part Product Code Notification Users

* Product Family: 1JFQ
 * Financial Family: S001JFQ
 * Hierarchy Owner: P3169
 Product Family Effective Date: 02/14/1901
 Product Family Expiration Date: 12/23/2055

[Update] [Cancel]

[Display Product Codes]

NAM: [v] [Export Family B] [Edit Regional BOR]

Download

Do you want to open or save this file?

Name: 1JFQ.csv
 Type: Microsoft Office Excel Comma Separated Values File
 From: localhost

[Open] [Save] [Cancel]

While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. [What's the risk?](#)

Family BOR

<< 1 2 3 >>

Care BOR	Part Number	Description	Regions				Type	Classification	Part Owner	CCT Ref	Product Family Count	Part Count
			APAC	CHINA	E	LTA						

Figure A.18 Product Family Export Screen

Microsoft Excel - 1JFQ.csv

	A	B	C	D	E	F	G	H	I
1	Care BOR	Part Number	Description	Part Category	Classification	Part Owner	Product Family Count	CCT Reference	
2	N	1000001	PWC	SCREW	Care BOR	component	1	Ref1	
4	Y	2000002	PWC	RIGID	Care BOR	component	1	Ref3	
5	Y	2000004	PWC	RIGID	Care BOR	component	1		
6	Y	2000005	PWC	SCREW	Care BOR	component	1		
7	N	2222220	PWC	DDE	Care BOR	component	1		
8	N	2222221	PWC	DDE	Care BOR	component	1		
9	Y	3000003	PWC	SCREW	Care BOR	component	1	Ref1	
10	Y	3000004	PWC	SCREW	Care BOR	component	1		
11	Y	3000005	PWC	SCREW	Care BOR	component	1		
12	Y	3000006	PWC	SCREW	Care BOR	component	1		
13	Y	3000007	PWC	SCREW	Care BOR	component	1		
14	Y	3000008	PWC	SCREW	Care BOR	component	1		
15	Y	3000009	PWC	SCREW	Care BOR	component	1	Ref3	
16	Y	7897897	CHIPRES 0W06 56K J	0603 SCREW	Care BOR	component	1		
17	Y	8888888	CHIPRES 0W06 56K J	0603 DDE	Care BOR	component	1		
18	Y	9999990	CHIPRES 0W06 56K J	0603 DDE	Care BOR	component	1	Ref1	
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Ready

Figure A.19 Exported CSV file

NOKIA
Connecting People

Claim For Mobile Part Repairs -Notification

[Site Home](#)
[Approval](#)
[Product Family](#)
[Part Membership](#)
[Part](#)
[Product Code](#)
[Notification](#)
[Users](#)

Category:

Start Date:

End Date:

Figure A.20 Notification Screen

Microsoft Excel - part.csv

	A	B	C	D	E	F	G	H	I	J
	Part Number	Description	Revision	Dummy	Manual	Classification	Owner	Global Effective Date	Global Expiration Date	New Part
2	9500000	PWB RIGID 2NU 48.5X95.875X	1	N	N	EWE SAMPLES	PART-ARI,Z	1/1/1900	12/31/9999	Yes
3	8500001	Samples RIGID 2NU 48.5X95.8	3	N	N	EWE SAMPLES,Y	PART-ARI,QA	1/1/1900	12/31/9999	Yes
4	8500002	RIGID 2NU 48.5X95.875X0.863	4	N	N	EWE SAMPLES,X	PART-ARI,S	1/1/1900	12/31/9999	Yes
5	8500003	RIGID 2NU 48.5X95.875X0.863	3	N	N	EWE SAMPLES	PART-ARI,D,D	1/1/1900	12/31/9999	Yes
6	8500004	Samples,PWXXX	3	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
7	8500005	Samples	13	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
8	9500000	PWB RIGID 2NU 48.5X95.875X	1	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
9	9500001	Samples RIGID 2NU 48.5X95.8	3	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
10	9500002	RIGID 2NU 48.5X95.875X0.863	4	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
11	9500003	RIGID 2NU 48.5X95.875X0.863	3	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
12	9500004	Samples	3	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
13	9500005	Samples	13	N	N	EWE SAMPLES	PART-ARI	1/1/1900	12/31/9999	Yes
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										

Ready

Figure A.21 Export Part in Notification

	A	B	C	D	E
1	Product Family	Part Number	Manual	Care BOR	OCT Reference
2	4BC5	8500000	Y	N	Ref1
3	4BC5	8500001	Y	N	Ref2
4	4BC5	8500002	Y	N	Ref1
5	4BC5	8500003	Y	N	Ref1
6	4BC5	8500004	Y	N	Ref3
7	4BC5	8500005	Y	N	Ref1
8	4BC5	8500006	Y	N	Ref1
9	4BC5	8500007	Y	N	Ref2
10	4BC5	8500008	Y	N	Ref3
11	4BC5	8500009	Y	N	Ref2
12	4BC5	8500010	Y	N	Ref3
13	4BC5	8500011	Y	Y	Ref3
14	4BC5	8500012	Y	Y	Ref2
15	4BC5	8500013	Y	Y	Ref1
16	4BC5	8500014	Y	Y	Ref1
17	4BC5	8500015	Y	Y	Ref2

Figure A.22 Export Part Membership in Notification

	A	B	C	D	E	F	G	H
1	Product code	Description	Effective Date	Expiration Date	Product Family	Category code	Revision	Classification
2	N31B8C8	RM-290003 CUST.TRX Wind GR SG	2/26/2008	2/29/2008	1JFQ	AFTER SALES KIT	1	Care BOR
3	253C8H8	RLM-5678	2/26/2008	2/29/2008	1JFQ	AFTER SALES KIT	2	Care BOR
4	002C8F1	RM-245	2/26/2008	2/29/2008	1JFQ	AFTER SALES KIT	3	Basic Transceiver
5	4828BC9	RM-290003 CUST.TRX Wind GR SG	2/26/2008	2/29/2008	1JFQ	AFTER SALES KIT	4	Care BOR
6	5829BC1	RLM-5678	2/26/2008	2/29/2008	1JFQ	AFTER SALES KIT	5	Care BOR
7	AAA2071	RM-245	2/26/2008	2/29/2008	1JFQ	AFTER SALES KIT	6	Basic Transceiver

Figure A.23 Export Product Code in Notification

NOKIA Claim For Mobile Part Repairs - Family Approval
Connecting People

Site Home Approval Product Family Part Membership Part Product Code Notification Users

Family Approval Part Approval Care BOR Approval

Global E MEA APAC NAM CHINA LTA

Product Family	Financial Family	Effective Date	Expiration Date	Product Code Count	Part Count	Family BOR
<input type="checkbox"/> 8BC9	S008BC9	01/01/1900	12/31/9999	6	0	View
<input type="checkbox"/> 9BC10	S009BC10	01/01/1900	12/31/9999	6	0	View

<< < 1 >>

Approve Cancel

Figure A.24 Family Approval Screen

NOKIA Claim For Mobile Part Repairs Part Approval
Connecting People

Site Home Approval Product Family Part Membership Part Product Code Notification Users

Family Approval Part Approval Care BOR Approval

E MEA APAC NAM CHINA LTA

<< < 1 >>

Part Number	Part Description	Part Type	Classification	Owner	Service Level	Repair Activity	Effective Date	Expiration Date
<input type="checkbox"/> 8500003	RIGID 2NU 48.5X95.875X0.863 M8 3PA	EVE	EVE SAMPLES	PART- ARI,D,D	3	MRS	01/01/1999	12/31/9999
<input type="checkbox"/> 8500003	RIGID 2NU 48.5X95.875X0.863 M8 3PA	EVE	EVE SAMPLES	PART- ARI,D,D	3	ME		
<input type="checkbox"/> 8500004	Samples PWXXX	EVE	EVE SAMPLES	PART- ARI	3	MRS	01/01/1999	12/31/9999
<input type="checkbox"/> 8500004	Samples PWXXX	EVE	EVE SAMPLES	PART- ARI	2	SO		
<input type="checkbox"/> 9500000	PWB RIGID 2NU 48.5X95.875X0.863 M8 3PA	PWB	EVE SAMPLES	PART- ARI	2	ME		
<input type="checkbox"/> 9500001	Samples RIGID 2NU 48.5X95.875X0.863 M8 3PA	EVE	EVE SAMPLES	PART- ARI	3	M4		
<input type="checkbox"/> 9500002	RIGID 2NU 48.5X95.875X0.863 M8 3PA SMM	EVE	EVE SAMPLES	PART- ARI	2	MR		
<input type="checkbox"/> 9500003	RIGID 2NU 48.5X95.875X0.863 M8 3PA	EVE	EVE SAMPLES	PART- ARI	3	ME		

Figure A.25 Part Approval Screen

[Site Home](#) [Approval](#) [Product Family](#) [Part Membership](#) [Part](#) [Product Code](#) [Notification](#) [Users](#)

User ID
 User Last Name
 User First Name
 Status

<< < 1 > >>

User ID	User Last Name	User First Name	Last Login Date	Status
CAREBORA	CAREBOR	APPROVAL		Active
GEETHA	KS	Geetha	02/22/2008	Active
GITA	GITA	GITA		Active
Kiruthiga	kiruthi	kiruthi	02/21/2008	Active
NAT	Ulaganathan	Natarajan	02/26/2008	Active
NET	NETT	NETT		Active

Figure A.26 User Search Screen

[Site Home](#) [Approval](#) [Product Family](#) [Part Membership](#) [Part](#) [Product Code](#) [Notification](#) [Users](#)

User ID
 Status
 User Last Name
 User First Name

Figure A.27 Add New User Screen

[Site Home](#)
[Approval](#)
[Product Family](#)
[Part Membership](#)
[Part](#)
[Product Code](#)
[Notification](#)
[Users](#)

User ID
 Status ▾
 User Last Name
 User First Name

▾
 ▾

Access

Delete	Role	Region
<input checked="" type="checkbox"/>	GLOBAL READ	ALL
<input type="checkbox"/>	REGIONAL PART MEMBERSHIP UPDATE	CHINA
<input type="checkbox"/>	REGIONAL READ	CHINA

Figure A.28 User Maintenance Screen

MERCURY

Quality Center

User Name:

Password:

Automatically log in to my test domain and project on this machine

Domain:

Project:

Optimize Application Quality

Done Internet

Figure A.29 Mercury Quality Center - Login Screen

CHAPTER 10

REFERENCES

10.1 REFERENCE BOOKS

- A.Silberschatz,” Database System Concepts” , Tata Mcgraw Hill,2000.
- P.Naughton,” Java2: The Complete Reference”, TMGH, 2003.
- Stephen Burd, John Satzinger, Robert Jackson,“System Analysis and Design in a Changing World”, SAMS Techmedia,1998.

10.2 WEBSITES

- <http://www.sun.java.com>
- <http://www.w3schools.com>
- <http://www.eclipse.org>
- <http://www.struts.org>.