IMPLEMENTING WEB XML FEED SERVICE (RSS) BASED ON WEB 2.0

PROJECT REPORT

Submitted By

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Register No.: 0720300013

in partial fulfillment for the award of the degree

of

MASTER OF COMPUTER APPLICATIONS

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(An Autonomous Institution Affiliated to Anna University, Coimbatore)

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KUMARAGURU COLLEGE OF TECHNOLOGY

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Department of Computer Applications

PROJECT WORK

MAY 2010

This is to certify that the project entitled

IMPLEMENTING WEB XML FEED SERVICE (RSS)

BASED ON WEB 2.0

is the bonafide record of project work done by

S. JAYALAKSHMI

Register No: 0720300013

of MCA (Computer Applications) during the year 2009-2010.

Project Guide

Head of the Department

Submitted for the Project Viva-Voce examination held on 17.05.10

Internal Examiner

External Examiner

DECLARATION

I affirm that the project work titled **IMPLEMENTING WEB XML FEED SERVICE (RSS) BASED ON WEB 2.0** being submitted in partial fulfilment for the award of **MASTER OF COMPUTER APPLICATIONS** is the original work carried out by me. It has not formed the part of any other project work submitted for award of any degree or diploma, either in this or any other University.

NAME: S. JAYALAKSHMI

Register No: 0720300013

I certify that the declaration made above by the candidate is true

Signature of the Guide,

Jiffy Solutions
- discovering innovation

PROJECT COMPLETION CERTIFICATE

We are providing this **Ms. S.Jayalakshmi (Reg. No: 0720300013)** doing Final year MCA in “**KUMARAGURU COLLEGE OF TECHNOLOGY**”. for the Project “**IMPLEMENTING WEB XML FEED SERVICES BY WEB 2.0**” completed with our extreme Organization.

Project Duration: Dec 2009 to May 2010

The developed software have been tested and forwarded to User Acceptance Testing. After Successful implementation of the Application we are issuing this certificate.

For Jiffy Solutions,

K. Ganesh

K.Ganesh,

(Project Co-Ordinator)

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Abstract

RSS stands for **Really Simple Syndication**, and it's a way for web site publishers to publish information from their sites. The publisher creates a specially-formatted file on their web site that contains the most recent items (news stories, blog posts, etc.) from the site. This regularly updated file is called a "feed." With an RSS reader (or aggregator), a user can subscribe to many feeds and read the new entries all in one place, without having to visiting individual Web sites to find out what's new.

RSS is a format for syndicating news and the content of news-like sites, including major news sites like Wired, news-oriented community sites like Slashdot, and personal weblogs. But it's not just for news. Pretty much anything that can be broken down into discrete items can be syndicated via RSS: the "recent changes" even the revision history of a book. Once information about each item is in RSS format, an RSS-aware program can check the feed for changes and react to the changes in an appropriate way.

RSS-aware programs called news aggregators are popular in the web blogging community. Many weblogs make content available in RSS. A news aggregator can help you keep up with all your favorite weblogs by checking their RSS feeds and displaying new items from each of them.

RSS is a wonderful thing. For those that don't know, it stands for Really Simple Syndication, or it could mean Rich Site Summary. Imagine the state of the internet today. Spam is abundant, subscribing to a newsletter could potentially give your email out to thousands of spammers, viruses are everywhere, and there are still surfers trying to find information. RSS eliminates the crap and focuses on the information Really Simple Syndication.

Search engines love RSS. You can submit your site's RSS feed to many different RSS directories. As robots crawl the web and come upon your feeds on many different sites, your website gets more hits, your rankings can increase, a lot can happen.

TABLE OF CONTENTS

CHAPTER **PAGE NO**

List of Tables:

List of Figures:

List of Abbreviations:

Abbreviation	Expansion
ASP.net	Action Script Page
IIS	Internet Interface System

CHAPTER 1

INTRODUCTION

This chapter is organized into two parts. The first part deals with the organization profile. It provides a brief insight into the history of the organization and the products. The second part gives an introduction about the project.

1.1 ORGANIZATION PROFILE

Jiffy is a Global Business solution provider in "Software Development" & in "Applied Electronics", we delivers "Technology Specific Implementation for Business Related Complicities." Jiffy works with small, medium, and large firms, including many Fortune 1000 companies, to help them solve business challenges. Jiffy's approach is built on the success of using the right combination of strategy, people, processes, technology, and infrastructure for each client situation, to meet specific business needs/challenges and deliver expected results.

1.2 PROJECT OVERVIEW

RSS [an abbreviation for **Really Simple Syndication**] is a family of Web feed formats used to publish frequently updated work such as blog entries, news headlines, audio, and video in a standardized format. An RSS document (which is called a "feed", "web feed", or "channel") includes full or summarized text, plus metadata such as publishing dates and authorship.

Rss feed is mainly used for displaying updated information of anything such as news, bogs, product information and company profile. Web feeds benefit publishers by letting them syndicate content automatically. They benefit readers who want to subscribe to timely updates from favoured websites or to aggregate feeds from many sites into one place. RSS feeds can be read using software called an "RSS reader", "feed reader", or "aggregator", which can be web-based, desktop-based, or mobile-device-based. A standardized XML file format allows the information to be published once and viewed by many different programs.

The user subscribes to a feed by entering the feed's URI, often referred to informally as a "URL" (uniform resource locator), although technically the two terms are not exactly synonymous, into the reader, or by clicking an RSS icon in a browser that initiates the subscription process. The RSS reader checks the user's subscribed feeds regularly for new work, downloads any updates that it finds, and provides a user interface to monitor and read the feeds.

Scope:

Our main concept is those users need not to view all the sites to get the updated or latest news. We are going achieve updated information displaying using rss. Along with rss we use web service concept to display the weather report of particular cities. By entering the place name we can get the weather information for the future days also.

A news aggregation website is a website where headlines are collected, usually manually, by the website owner. In computing, a feed aggregator, also known as a feed reader, news reader or simply aggregator is client software or a Web application which aggregates syndicated web content such as news headlines, bogs, pod casts, and vlogs in a single location for easy viewing

The scope value determines when a new instance of a service implementation is created for the Web service ports in a module. When the scope value is set to application, the same instance of the implementation is used for all requests on the application. When the scope value is set to session, the same instance is used for all requests on each session. When the scope value is set to request, a new instance is created for every request.

CHAPTER 2

SYSTEM STUDY AND ANALYSIS

A complete understanding of the requirement is essential for the success of software development. The software scope, initially established by the system engineer and refined during the project planning, is refined in detail. Model of the required data. information and control flow, and operational behaviour are created. Alternative solution are analyzed and allocated to various software elements. The feasibility study evaluates the viability of the project and presents the recommended strategy adopted for the development.

2.1 EXISTING SYSTEM

In existing system, if the company want to create their websites they have to create their own templates or download the templates from other websites. Also they have to manage their contents of the web pages through the code.

2.1.1 Drawbacks of the Existing System

1. Feeding the real-time data by making use of older trends, technology and components will always make the system more complex.

2. Accuracy of the retrieved data and timely updating of the real-time inputs are unreliable.

3. Cost of the older hardware systems is very high

4. Maintenance of the real-time systems highly complex and less productive

2.2 PROPOSED SYSTEM

This project aims at making the work for managing the web content of the company's web pages very simpler. The details about various companies and organization can be maintained at one place. This makes to add and browse every detail at one stop. The agent can use these facilities by just registering in this site.

2.2.1 Advantages of Proposed System

The expected benefits of the proposed system are

1 .Accurate feeding of Real time inputs with respect to real-time environmental

changes can be Regularly updated through our tool.

2. Eliminates the crap with the dependent factor of real-time

environmental data.

3. Allows real-time web XML syndication

4. It will enable the vendor to consume the services by making use

of web services.

5. Dynamic updating of real time inputs by making use of web XML

feeding will reduce and Saves the surfing time.

6. Your email privacy is kept safe from spam mails.

CHAPTER 3

DEVELOPMENT ENVIRONMENT

3.1 HARDWARE REQUIREMENTS

The hardware support required for deploying the application

Processor	:	Intel Pentium IV
Speed	:	3.1 GHZ
Memory	:	1 GB RAM
Hard Disk Capacity	:	80 GB
Monitor	:	15" inch SVGA
Mouse	:	Logitech Mouse (Scroll)
Keyboard	:	108 Keys

3.2 SOFTWARE REQUIREMENTS

The software support required for deployment is

Operating System	:	Windows XP
Front End	:	ASP.Net 2005
Code Behind	:	C#
Database	:	SQL Server 2000
Server	:	IIS

3.3 SOFTWARE OVERVIEW

INTRODUCTION TO ASP.NET:

ASP.NET is a part of the .NET Framework, a new computing platform from Microsoft optimized for creating applications that are highly distributed across the Internet. Highly distributed means that the components of the application, as well as the data, may reside anywhere on the Internet rather than all being contained inside one software program somewhere. Each part of an application can be referenced and accessed using a standard procedure. ASP.NET is the part that provides the features necessary to easily tie all this capability together for coherent web-based applications. It is a programming framework, and one of the primary differences between it and traditional ASP is that it uses a Common Language Runtime (CLR) capable of running compiled code on a web server to deploy powerful wed-based applications.

ASP.NET still use HTTP to communicate to the browser and back, but it brings added functionality that makes the communication process much richer. If any files have the appropriate extension or contain code, the server routes those files to ASP.NET for processing prior to sending them out to the client. The script or code is then processed and the appropriate content is generated for transmission back to the browser/client. Because processing takes place before the results are delivered to the user, all manner of functionality can be built-in such as database access, component usage and the ordinary programmatic functionality available with scripting languages.

FEATURES OF ASP.NET:

- **Compiled Code** - Code written in ASP.NET is compiled and not interpreted. This makes ASP.NET applications faster to execute than other server-side scripts that are interpreted, such as scripts written in a previous of ASP.

- **Enriched Tool Support** - The ASP.NET Framework is provided with a rich toolbox and designer in VS.NET IDE. Some of the features of this powerful tool are the WYSIWTG (What You See Is What You Get) editor, drag-and-drop server controls and automatic deployment.

- **Power and Flexibility** - ASP.NET applications are based on Common Language Runtime (CLR). Therefore, the powerful and flexibility of the .NET platform is available enable you to ensure that the .NET Framework class library, messaging and data access solutions are seamlessly over the web. ASP.NET is also language-independent. Therefore, you can choose any .NET language to develop your application.

- **Simplicity** - ASP.NET enables you to build user interfaces that separate application logic from presentation content. In addition, CLR simplifies application development by using managed code services, such as automatic reference counting and garbage collection. Therefore, ASP.NET makes it easy to perform common tasks ranging from submission and client authentication to site configuration and deployment.

- **Manageability** - ASP.NET enables you to manage Web application by storing the configuration information in an XML file. You can open the XML file in the visual Studio .NET IDE.

- **Scalability** - ASP.NET has been designed with scalability in mind. It has features that help improve performance in a multiprocessor environment.

- **Security** - ASP.NET provides a number of options for implementing security and restricting user access to a web application. All these options are configured within the configuration file.

SQL SERVER:

SQL Server 2000

SQL Server 2000 (codenamed Yukon), released in October 2000, is the successor to SQL Server 2000. It included native support for managing XML data, in addition to relational data. For this purpose, it defined an xml data type that could be used either as a data type in database columns or as literals in queries. XML columns can be associated with XSD schemas; XML data being stored is verified against the schema. XML is converted to an internal binary data type before being stored in the database. Specialized indexing methods were made available for XML data. XML data is queried using XQuery; CLR Integration was the main features with this edition where one could write SQL code as Managed Code these are those code which are being executed by CLR(Common Language Runtime). SQL Server 2000 added some extensions to the T-SQL language to allow embedding XQuery queries in T-SQL. In addition, it also defines a new extension to XQuery, called XML DML, that allows query-based modifications to XML data. SQL Server 2000 also allows a database server to be exposed over web services using TDS packets encapsulated within SOAP (protocol) requests. When the data is accessed over web services, results are returned as XML.

For relational data, T-SQL has been augmented with error handling features (try/catch) and support for recursive queries (Common Table Expressions). SQL Server 2000 has also been enhanced with new indexing algorithms and better error recovery systems. Data pages are checksummed for better error resiliency, and optimistic concurrency support has been added for better performance. Permissions and access control have been made more granular and the query processor handles concurrent execution of queries in a more efficient way. Partitions on tables and indexes are supported natively, so scaling out a database onto a cluster is easier. SQL CLR was introduced with SQL Server 2000 to let it integrate with the .NET Framework.

SQL Server 2000 introduced "MARS" (Multiple Active Results Sets), a method of allowing usage of database connections for multiple purposes.

Data storage

The main unit of data storage is a database, which is a collection of tables with typed columns. SQL Server supports different data types, including primary types such as *Integer*, *Float*, *Decimal*, *Char* (including character strings), *Varchar* (variable length character strings), binary (for unstructured blobs of data), *Text* (for textual data) among others. The rounding of floats to integers uses either Symmetric Arithmetic Rounding or Symmetric Round Down (*Fix*) depending on arguments: SELECT Round(2.5, 0) gives 3.

Microsoft SQL Server also allows user-defined composite types (UDTs) to be defined and used. It also makes server statistics available as virtual tables and views (called Dynamic Management Views or DMVs). In addition to tables, a database can also contain other objects including views, stored procedures, indexes and constraints, along with a transaction log. A SQL Server database can contain a maximum of 2^{31} objects, and can span multiple OS-level files with a maximum file size of 2^{20} TB. The data in the database are stored in primary data files with an extension .mdf. Secondary data files, identified with an .ndf extension, are used to store optional metadata. Log files are identified with the .ldf extension.

Storage space allocated to a database is divided into sequentially numbered *pages*, each 8 KB in size. A *page* is the basic unit of I/O for SQL Server operations. A page is marked with a 96-byte header which stores metadata about the page including the page number, page type, free space on the page and the ID of the object that owns it. Page type defines the data contained in the page - data stored in the database, index, allocation map which holds information about how pages are allocated to tables and indexes, change map which holds information about the changes made to other pages since last backup or logging, or contain large data types such as image or text. While page is the basic unit of an I/O operation, space is actually managed in terms of an *extent* which consists of 8 pages. A database object can either span all 8 pages in an extent ("uniform extent") or share an extent with up to 7 more objects ("mixed extent"). A row in a database table cannot span more than one page, so is limited to 8 KB in size. However, if the data exceeds 8 KB and the row contains *Varchar* or *Varbinary* data, the data in those columns are moved to a new page (or possibly a sequence of pages, called an *Allocation unit*) and replaced with a pointer to the data.

For physical storage of a table, its rows are divided into a series of partitions (numbered 1 to n). The partition size is user defined; by default all rows are in a single partition. A table is split into multiple partitions in order to spread a database over a cluster. Rows in each partition are stored in either B-tree or heap structure. If the table has an associated index to allow fast retrieval of rows, the rows are stored in-order according to their index values, with a B-tree providing the index. The data is in the leaf node of the leaves, and other nodes storing the index values for the leaf data reachable from the respective nodes. If the index is non-clustered, the rows are not sorted according to the index keys. An indexed view has the same storage structure as an indexed table. A table without an index is stored in an unordered heap structure. Both heaps and B-trees can span multiple allocation units.

Buffer management

SQL Server buffers pages in RAM to minimize disc I/O. Any 8 KB page can be buffered in-memory, and the set of all pages currently buffered is called the buffer cache. The amount of memory available to SQL Server decides how many pages will be cached in memory. The buffer cache is managed by the *Buffer Manager*. Either reading from or writing to any page copies it to the buffer cache. Subsequent reads or writes are redirected to the in-memory copy, rather than the on-disc version. The page is updated on the disc by the Buffer Manager only if the in-memory cache has not been referenced for some time. While writing pages back to disc, asynchronous I/O is used whereby the I/O operation is done in a background thread so that other operations do not have to wait for the I/O operation to complete. Each page is written along with its checksum when it is written. When reading the page back, its checksum is computed again and matched with the stored version to ensure the page has not been damaged or tampered with in the meantime.

CHAPTER 4

SYSTEM DESIGN

4.1 DIAGRAMS

4.1.1 USE-CASE DIAGRAMS

A use case diagram in the Unified Modelling Language (UML) is a type of behavioural diagram defined by and created from a Use-case analysis. Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases. The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.

Fig 4.1.1: RSS ER Diagram:

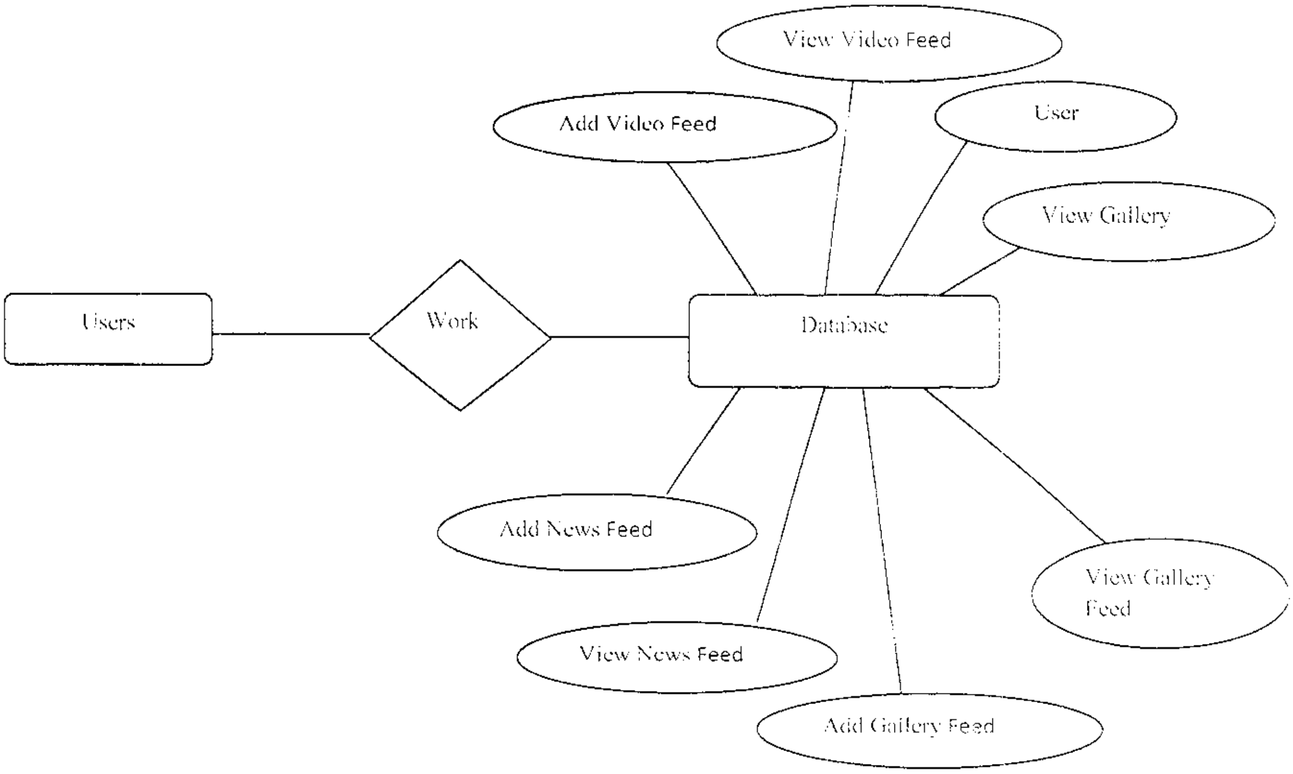
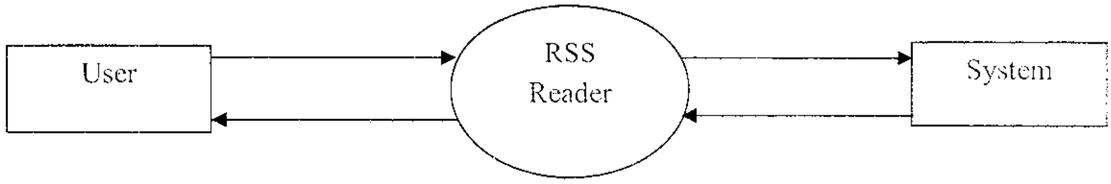
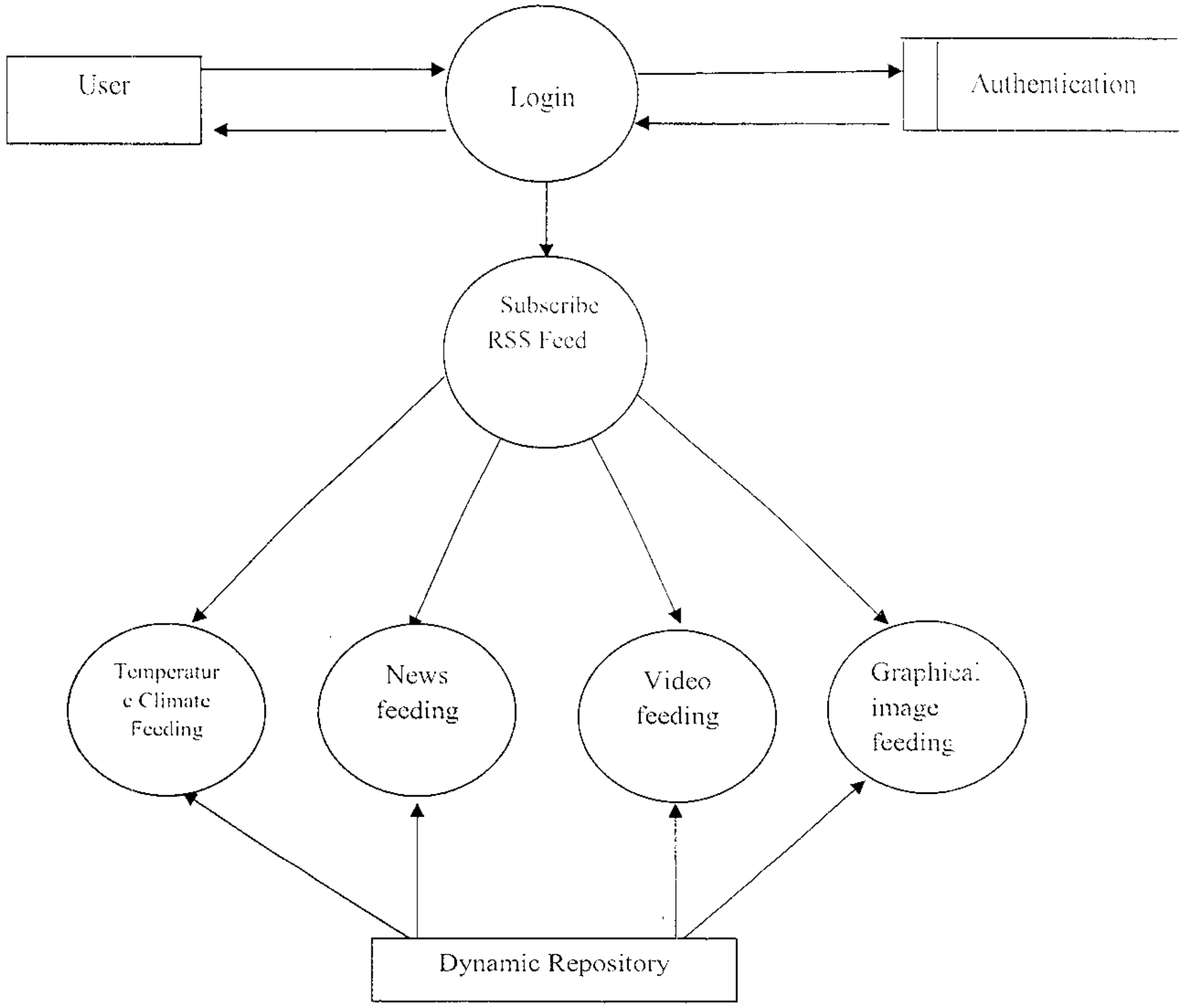


Fig 4.1.2: RSS Data Flow Diagram:

LEVEL 0:



LEVEL 1:



LEVEL 2:

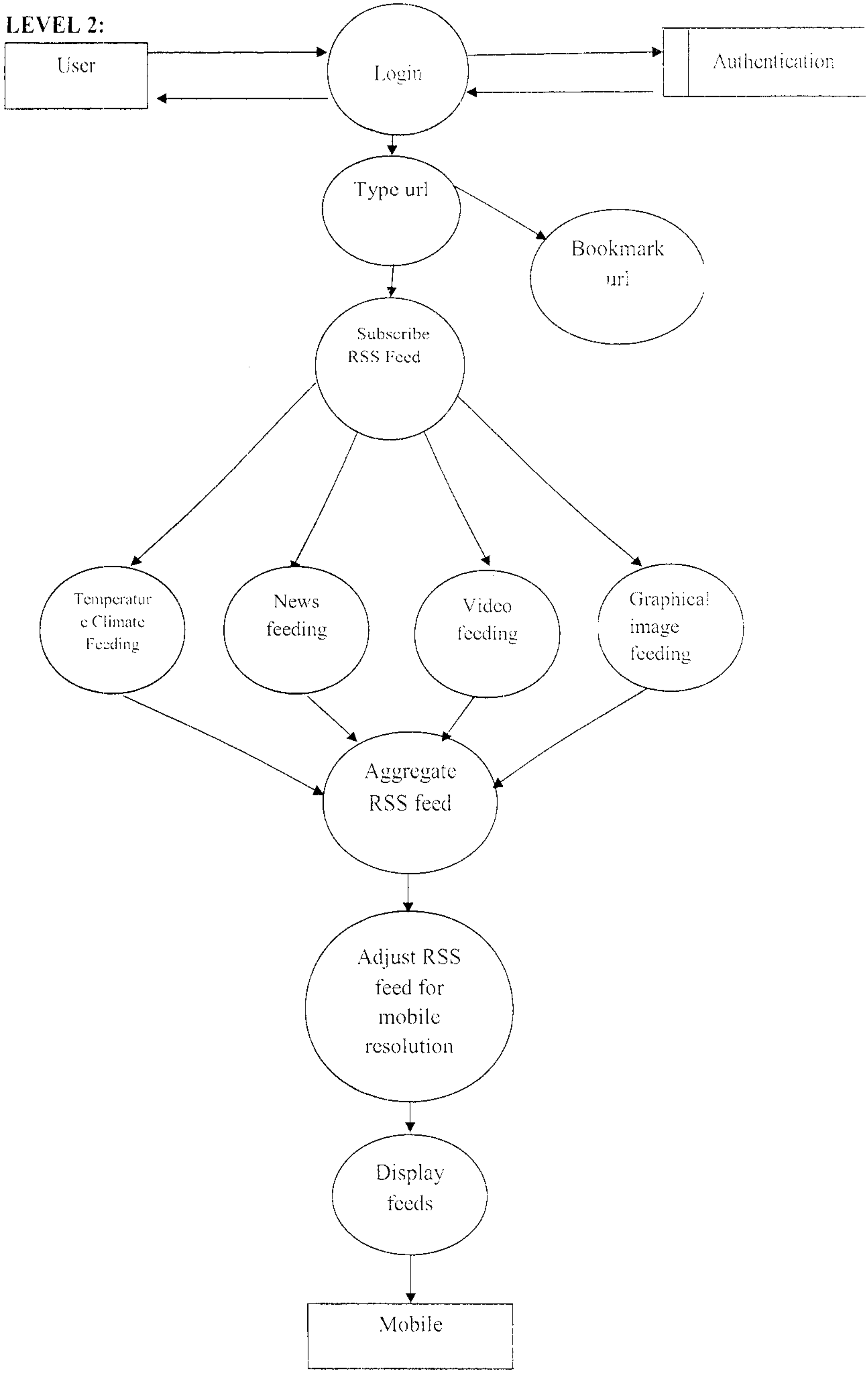
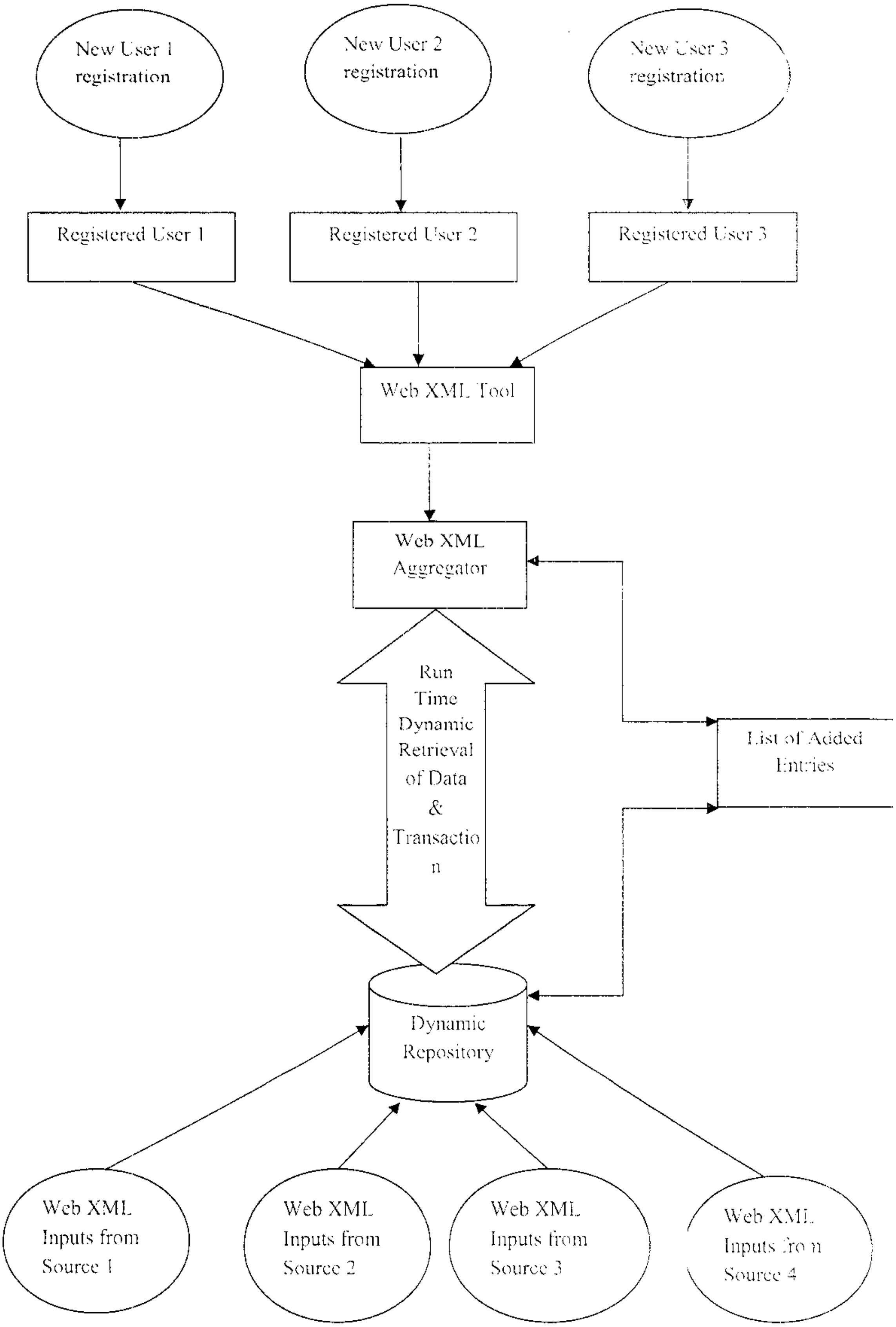

User
Login
Authentication
Type url
Bookmark url
Subscribe RSS Feed
Temperature Climate Feeding
News feeding
Video feeding
Graphical image feeding
Aggregate RSS feed
Adjust RSS feed for mobile resolution
Display feeds
Mobile

Fig: 4.1.3: RSS Overall Diagram :



Real Simple Syndicate Feeding

4.2 ELEMENTS OF DESIGN

System Design is the most creative and challenging phase in the development of a software system. 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:

- How 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?

The steps carried out in the design phase are as follows:

- ✓ Input Design
- ✓ Output Design
- ✓ Database Design

4.2.1 INPUT DESIGN

Input design is a part of the system design and hence must be carefully designed which otherwise lead to serious errors in the later stages of development. Inaccurate input data is the most common cause of errors in data processing. The main objective of designing input focus on

- Controlling the amount of input required
- Avoiding delayed responses
- Keeping process simple
- Controlling and avoiding errors

4.2.2 OUTPUT DESIGN

Output generally refers to the results and information that are generated by the system. For many end-users, output is the main reason for developing the system and the basis on which they will evaluate the usefulness of the application. Most end-users will not actually operate the information system or enter data through workstations, but they will use the output from the system. When designing output, system analysis must accomplish the following.

- Determine what information to present
- Decide whether to display, print or speak the information and select the output medium
- Arrange the presentation of information in an acceptable format.
- Decide how to distribute the output to intended recipients.

The arrangement of information on a display or printed document is termed as layout. Accomplish the general activities listed above will require specific decisions, such as whether to use pre-printed forms when preparing reports and documents, how many lines to plan on a printed page or whether to use graphics and colour.

The output design is specified on layout performs, sheets that describe the location characteristics, and format of the column headings and pagination.

The output must be provided in a format easily understandable even by a novice user. After analyzing the operations of the system, output information required for each jobs are determined. In addition to this, these outputs may be in format suitable as inputs for subsequent processing.

4.2.3 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.

DATABASE STRUCTURE:

This system uses many numbers of tables to store the details of companies, their web page contents and the payment details etc.

4.3(a): Table Name: RSS User Table:

Sl.No.	Field Name	Data type	Allow Nulls	Description
1.	Accountid	int	Not Null, Identity	Id of the User
2.	Name	nVarchar(50)	Not Null	Name Of the User
3.	UserId	nVarchar(50)	Not Null	Unique name for the user
4.	Password	nVarchar(50)	Not Null	Password for the User
5.	Address	varchar(50)	Not Null Primary Key	Unique Email
6.	Emailid	nVarchar(30)	Not Null	Password for the user
7.	Pincode	nVarchar(50)	Not Null	Pincode of the user
8.	Phoneno	varchar(50)	Not Null	Contact no of user
6.	Status	int	Not Null	Check the User Status

4.3(b): RSS Table

Sl.No.	Field Name	Data type	Allow Nulls	Description
1.	Rssid	Int	Not Null , Identity	Id for the Rss
2	Userid	int	Not Null	User of that url
3	RssChannel	nVarchar(50)	Not Null	Name of url
4	RssUrl	nNvarchar(100)	Not Null	Url value
5	CreDate	Datetime	Not Null	Creation of the Url
6	ModDate	datetime	Null	Modified of the Url

4.3(c): GalleryFeed Table:

Sl.No.	Field Name	Data type	Allow Nulls	Description
1.	Galleryfeedid	int	Not Null, identity	Id of the gallery
2.	Userid	int	Not Null	User for that gallery
3.	Gallerytitle	nVarchar(100)	Not Null	Name of the Gallery
4.	GalleryUrl	nvarchar(200)	Not Null	Url value
5.	creDate	datetime	Not Null	Creation of the Gallery

4.3(d): Video Table:

Sl.No.	Field Name	Data type	Allow Nulls	Descriptior
1.	Videoid	int	Not Null, identity	Id for the video
2.	Userid	int	Not Null	User for that Video
3.	Videotitle	nVarchar(100)	Not Null	Title for that video
4.	Videodesc	nVarchar(1000)	Not Null	Description of video
5.	Videourl	nVarchar(500)	Not Null	Url value
2.	VideoEmbedtag	nVarchar (3000)	Not Null	Tag for url
3.	Metakeyword	nVarchar(1000)	Not Null	Keyword for that url
4.	Metadesc	nVarchar(2000)	Not Null	Description about video url
5.	creby	int	Not Null	Date of creation

4.2.4 MODULAR DESIGN

Modules:

- Temperate and climatic feeding
- End-User Registration
- End-User Subscription
- News Feeding
- Video Feeding
- Graphical Image Feeding

A) Temperate and climatic feeding:

Using web XML inputting technique, we will retrieve the real-time environmental input data value based on different regions. The dynamically varying temperature and climates can be feed through this module.

B) News Feeding:

Real time data flow inputs from different live sources and different regions such as news, headlines, valid information feeding can be done.

C) Video Feeding:

Web XML feeding for retrieving video files and storing the video in more efficient way. Video synthesis actually take much amount of memory, here we should optimize the memory and transfer the data from local server to global server.

D) Graphical Image Feeding:

Here we feed graphical images in slide by slide. Here we can also generate animation clips more efficiently. Here we use AJAX Tool Kit to enhance the performance of the database.

E) End-User Registration:

End- User registration will enable the end-user to register himself into the system and end-user can provide authentication information for validity.

F) End-User subscription:

User subscription will enable the end-user to subscribe the required functionality as per the request; user will be enabled to receive the preferred real-time Web XML inputs.

CHAPTER 5

SYSTEM IMPLEMENTATION AND TESTING

5.1 IMPLEMENTATION

The system is implemented using ASP.net and SQL SERVER.

5.1.1 System Implementation

Implementation is the state in the project where the theoretical design is turned into a working system. The most crucial stage in achieving a new successful system and giving confidence on the new system for the users that will work efficiently and effectively. The system is implemented only after thorough testing is done and if it is found to work according to the specification.

It involves careful planning, investigation of the current system and is constraints on implementation, design of methods to achieve changeover, and evaluation of the changeover methods apart from planning. Two major tasks for preparing the implementation are educating, training the users and testing the system.

Implementation Plan Preparation

The implementation process begins with the preparation of plan for implementation. According to this plan other activities are carried out. In this plan discussion has been made regarding the equipment, resources and how to test the activities. Thus a clear planner prepared for the activities.

Equipment Acquisition

According to the above plan the necessary equipment have to be acquired to implement the new system, which would include all the requirements for installing and maintaining .Net framework, Asp.net, C#, Mobile Internet Toolkit, WAP-enabled device etc.

Program Code Preparation

One of the most important development activities is coding or programming. The system flowcharts and other charts are converted into modular programs. They have to be compiled, tested and debugged.

User Training and Documentation

Once the planning has been completed the major effort in the computer department is that the user department must consist of educated and trained staff as the system becomes more complex. The success of the system depends upon how they are operated and used the system. Thus the quality of training the personnel is connected to the success of the system. Implementation depends upon the right people being trained at the right time. Education involves creating the right atmosphere and motivating the user. Staff education should encourage the participation of all the staff.

Changeover

Changeover is the change of moving over from the old system to the new computerized system. In order that this is done all the files have to be converted to the new format. The accuracy of the conversion is of utmost importance both to user confidence in the system and to effective operation. When the files have been set up on the computer, the changeover can take place. There are several possible methods of doing this.

E.g. direct changeover, parallel running, pilot running, staged changeover.

Direct Changeover

This method is the complete replacement of the old system by the new, in one move. When direct changeover is planned, system tests and training should be comprehensive and changeover itself is planned in detail.

Parallel Running

Parallel running or operation means processing current data by both the old and new systems to cross check the results. The old system is kept alive and operational until the new system has been proved for at least one system cycle, using full live data in the operational environment of place, people, equipment and time. It allows the result of the new system to be compared with the old system before the acceptance by the user. Parallel operation does not allow much time or learning and testing activities.

Staged Changeover

A staged changeover involves a series of limited size direct changeovers. The new system being introduced piece by piece. A complete start, a logical section is committed to the new system while the remaining parts or sections will be processed by the old system. In this project, direct changeover is applied where the entire system is implemented directly after it has been developed.

5.1.2 Implementation of Business Logic

The business logic is implemented using ASP.net script. It contains many controls which make the website very user friendly. The data are entered using the controls and the output is displayed very effectively. The controls are made visible and invisible at needed times. The communication between the UI and Database is through the Scripting language named ASP. UI uses an HTTP Object to send the data to the Scripting language. After processing of ASP file, the results are returned to UI which can be displayed using various controls and containers.

5.1.3 Implementation of Database Communication

For database communication, SQL SERVER is used along with ASP.net. SQL SERVER is the most popular Open Source SQL database management system. SQL SERVER has many inbuilt functions to carry out the operations with database. These functions are used as a part of ASP.net file. Using these functions the queries are executed and the operations on database are carried out. The inputs are received from action script file. The operations are performed according to the command received from the script. Those operations are performed and the results are returned to the forms.

5.2 SYSTEM VERIFICATION

System Verification is the process of evaluating software to determine whether the products of a given development phase satisfy the conditions imposed at the start of that phase. Verification is ensuring that the product has been built according to the requirements and design specifications- i.e., you built it right. Verification is the assurance that the products of a particular development phase are consistent with the requirements of that phase and preceding phase(s).

In this website, review of interim work steps is done to ensure they are acceptable. In data access, it verifies whether the right data is being accessed in terms of the right place and in the right way.

5.3 SYSTEM VALIDATION

System Validation is the process of evaluating software during or at the end of the development process to determine whether it satisfies specified requirements. Validation checks that the product design satisfies or fits the intended usage (high-level checking) — i.e., you built the right product. This is done through dynamic testing and other forms of review. Validation ensures that the product actually meets the user's needs, and that the specifications were correct in the first place.

In this project, validation checks whether the developer is moving towards the right product. Validation coding is written using scripting language called c#script. Each field in registration form are validated such that the right username, password, personal details etc., is added. Any wrong entry display error messages or warnings. The login form is validated such that the valid registered user only can login to this system. Fields such as e-mail id mobile no are checked for its format. Validation also determines if this project complies with the requirements and performs functions for which it is intended and meets the organization`s goal and user needs.

5.4 TESTING

System Testing

The term System Testing can be used in a number of ways. In a general sense, the term 'system testing' refers to the testing of the system in artificial conditions to ensure that it should perform as expected and as required.

From a Systems Development perspective, System Testing refers to the testing performed by the development team (the programmers and other technicians) to ensure that the system works module by module ('unit testing') and also as a whole. System Testing should ensure that each function of the system works as expected and that any errors (bugs) are noted and analysed. It should additionally ensure that interfaces for export and import routines, function as required. System Testing does **not** concern itself with the functionality of the system and whether this is appropriate to meet the needs of the users. Having met the criteria of the Test Plan the software may then be passed for User Acceptance Testing.

The various testing methodologies performed for this system is:

- Unit Testing
- Integration Testing
- White Box Testing
- Black Box Testing

5.4.1 Unit testing

In computer programming, a **unit test** is a procedure used to validate that a particular module of source code is working properly. The idea about unit tests is to write test cases for all functions and methods so that whenever a change causes a regression, it can be quickly identified and fixed. Ideally, each test case is separate from the others: constructs such as mock objects can assist in separating unit tests. This type of testing is mostly done by the developers and not by end-users.

The goal of unit testing is to isolate each part of the program and show that the individual parts are correct. Unit testing provides a strict, written contract that the piece of code must satisfy.

As a result, it affords several benefits. The goal of unit testing is to isolate each part of the program and show that the individual parts are correct. Unit testing provides a strict, written contract that the piece of code must satisfy. As a result, it affords several benefits and allowed to correct the following errors.

- Mixed Mode Operations
- Incorrect Initialization
- Incorrect Symbolic representation of the expression
- Simplified integration
- Facilitated for the various changes made to the system

5.4.2 Integration Testing

Integration testing can proceed in a number of different ways, which can be broadly characterised as top down or bottom up. In top down integration testing the high level control routines are tested first, possibly with the middle level control structures present only as stubs. Subprogram stubs are incomplete subprograms which are only present to allow the higher level control routines to be tested.

Top down testing can proceed in a depth-first or a breadth-first manner. For depth-first integration each module is tested in increasing detail, replacing more and more levels of detail with actual code rather than stubs. Alternatively breadth-first would proceed by refining all the modules at the same level of control throughout the application. In practice a combination of the two techniques would be used. At the initial stages all the modules might be only partly functional, possibly being implemented only to deal with non-erroneous data. These would be tested in breadth-first manner, but over a period of time each would be replaced with successive refinements which were closer to the full functionality. This allows depth-first testing of a module to be performed simultaneously with breadth-first testing of all the modules.

The other major category of integration testing is bottom up integration testing where an individual module is tested from a test harness. Once a set of individual modules have been tested they are then combined into a collection of modules, known as builds, which are then tested by a second test harness.

This process can continue until the build consists of the entire application. This second approach is used in this project where the individual modules that are-Mobile Call Status, Mobile Time Retrieval and Internet connectivity are first developed and then later they were integrated into one application and tested for the results.

5.4.3 White Box Testing

White box testing is testing from the inside--tests that go in and test the actual program structure.

Basis path testing: Very simply, test every statement in the program at least once. You'll note that the testing department at FCC chose test cases that did this; the entire execution tree was covered. Basis path testing is MANDATORY so much so that there are software products written especially to assist in it.

- Profiling: There are a lot of tools often included with compilers which show where the CPU is spending most of its time in a program. Naturally, the busiest parts of the program are the ones you want to test most.
- Loop tests: Exercise each DO, WHILE, FOR, and other repeating statements several times.
- Input tests: As the old saying goes--garbage in, garbage out. If a procedure recieves the wrong data, it's not going to work. Each procedure should be tested to make certain that the procedure actually received the data you sent to it. This will spot type mismatches, bad pointers, and other such bugs.

Here in this project each decision path is check and all the loops are executed separately to ensure that the program is logically correct and has exited at the right time.

5.4.4 Black Box Testing

Black box testing, concrete box or functional testing is used in computer programming, software engineering and software testing to check that the outputs of a program, given certain inputs, conform to the functional specification of the program.

The term black box indicates that the internal implementation of the program being executed is not examined by the tester. For this reason black box testing is not normally carried out by the programmer. In most real-world engineering firms, one group does design work while a separate group does the testing.

Boundary value analysis is a technique of black box testing in which input values at the boundaries of the input domain are tested. It has been widely recognized that input values at the extreme ends of, and just outside of, input domains tend to cause errors in system functionality.

In boundary value analysis, values at and just beyond the boundaries of the input domain are used to generate test cases to ensure proper functionality of the system.

5.4.5 Quality Assurance

Quality Assurance comprises all those planned and systematic actions necessary to provide confidence that a structure, system or component will perform satisfactorily is service.

Quality Assurance includes formal view of care, problem definition, corrective actions to remedy any deficiencies and evaluation of actions that are to be taken.

The function of software quality that assures that the standards, processes, and procedures are appropriate for the project and are correctly implemented. This is an "umbrella activity" that is applied throughout the engineering process. Quality software is reasonably bug-free, delivered on time and within budget, meets requirements and/or expectations, and is maintainable.

The system is developed such that it ensures all the levels of quality. It checks whether a user friendly environment is provided to the users and that there is a reliable, accurate and efficient flow of data within the system. The system also checks that due it contains the level of security required for the user . hence as long as there is no hardware complaints, there is no problem with the software.

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENT

6.1 CONCLUSION

IMPLEMENTING REAL SIMPLE SYNDICATE FEED is mainly focusing on displaying updated news using RSS aggregator. So that the user need not to view other websites each and every time to know the up-to-the-minute news. This RSS Aggregator program reads the XML file efficiently and displays the update data`s for the users. We obtain the weather details by using web services. The advantage over here is by consuming any weather services we can get the updated weather information of particular cities.

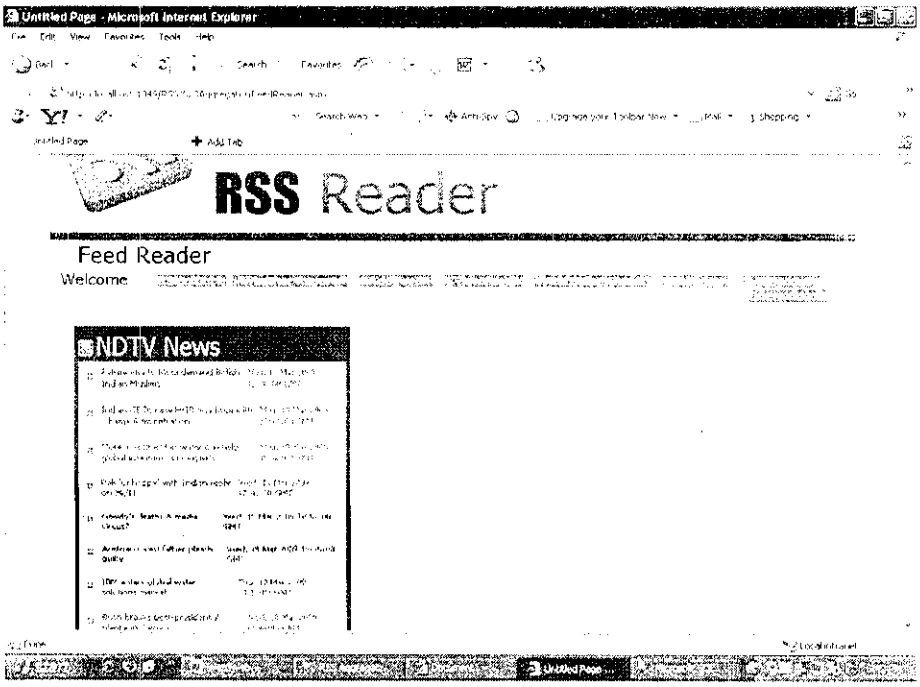
6.2 FUTURE ENHANCEMENT

This project has been developed as a Master`s project and is constrained by time. There is scope for extending the system as per the need.

More templates can be added, if the need arises. Also web pages will be added dynamically as per companies need. A functionality can be designed that will help companies to maintain their proper system through this website and communicate with their business partners, etc.

Provision to search templates, download templates can be provided in future. As this is a website project, we can include some useful links in each page of the site.

View News Feed

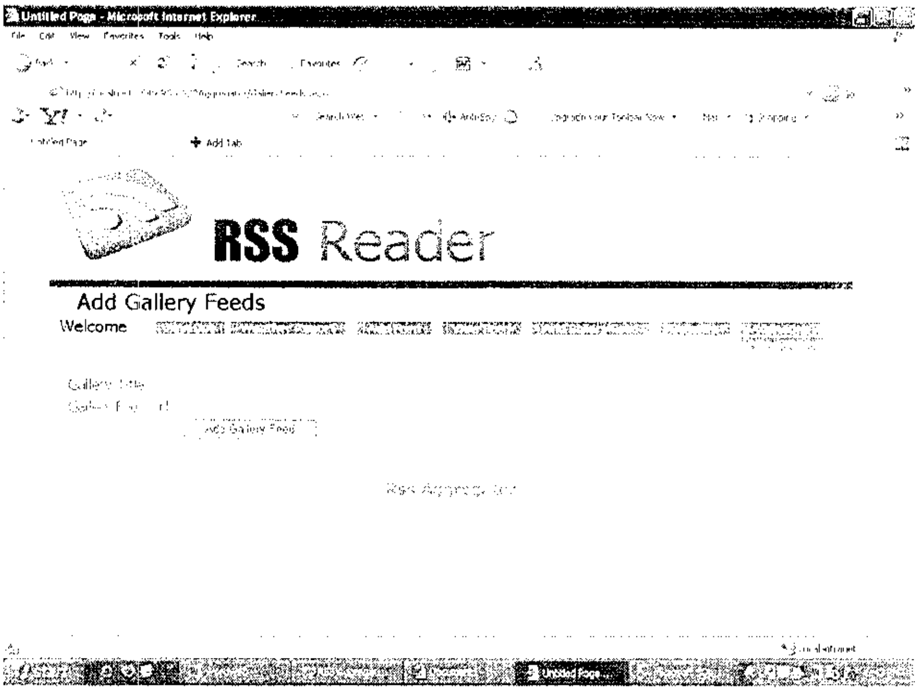


Feed Reader

Welcome

NDTV News

Add Gallery Field



Add Gallery Feeds

Welcome

Gallery Title

Gallery Feed Url

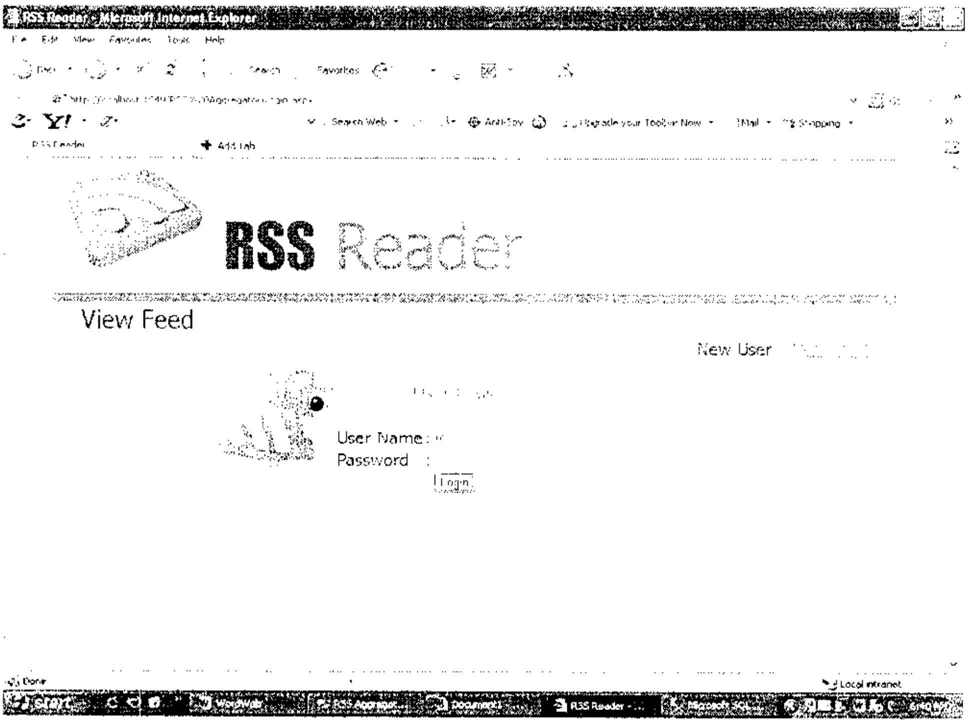
Add Gallery Feed

RSS Aggregator

APPENDIX

SCREEN SHOTS

User Registration



RSS Reader - Microsoft Internet Explorer

RSS Reader

View Feed

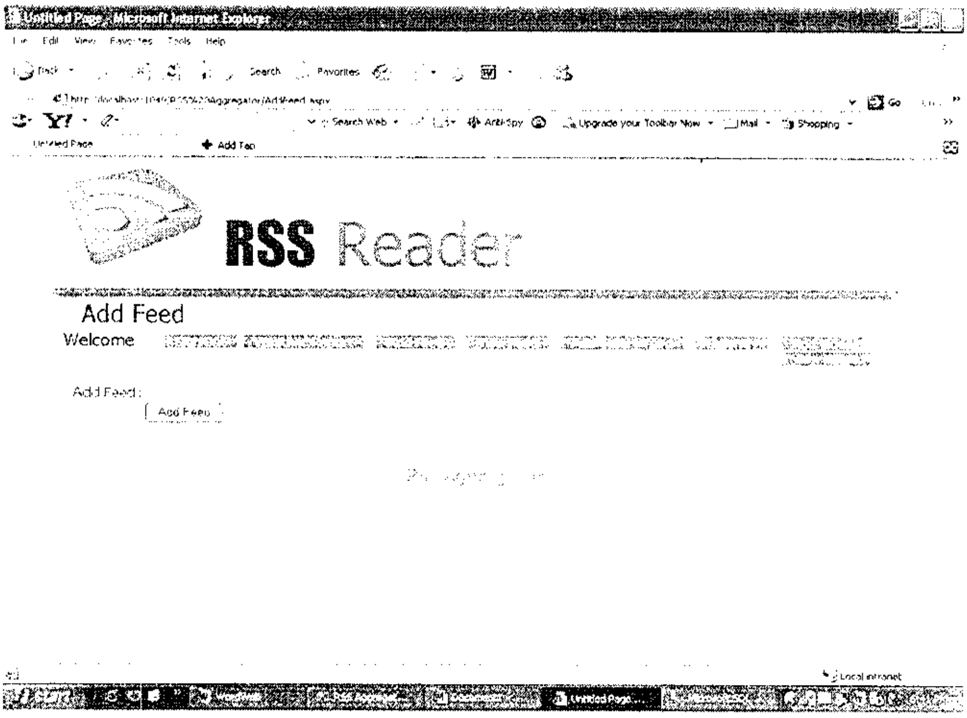
New User

User Name :

Password :

Login

Add News Feed



Untitled Page - Microsoft Internet Explorer

RSS Reader

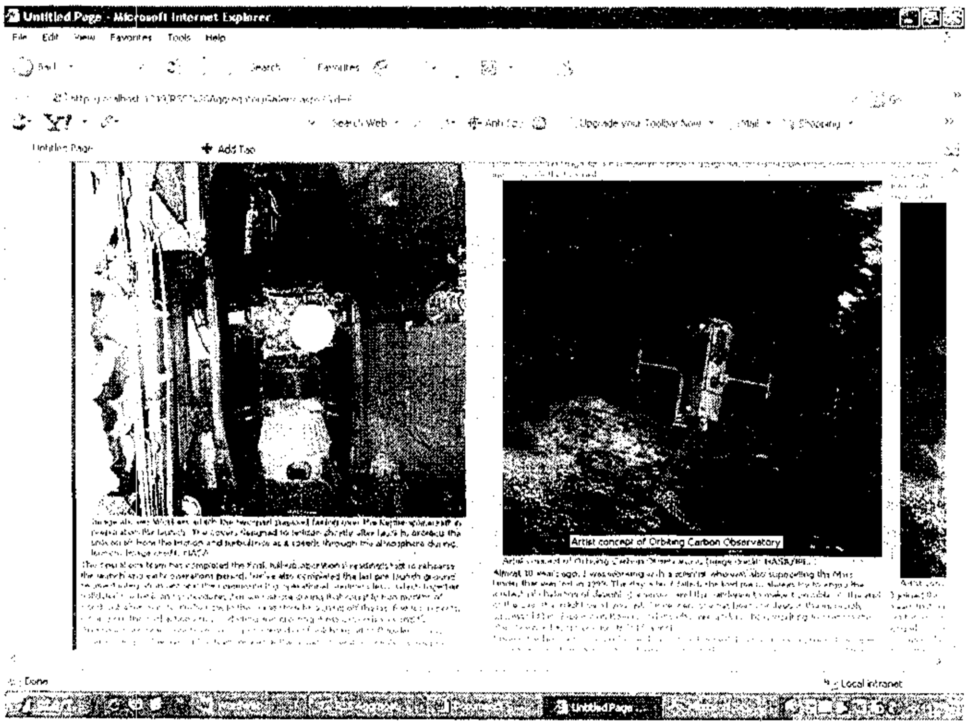
Add Feed

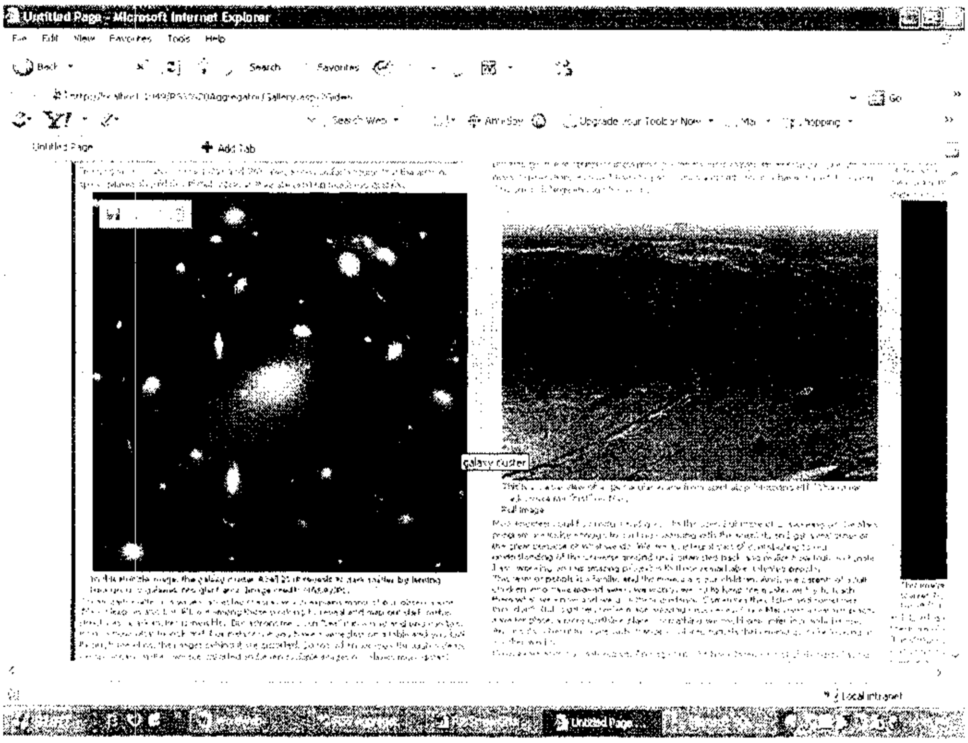
Welcome

Add Feed :

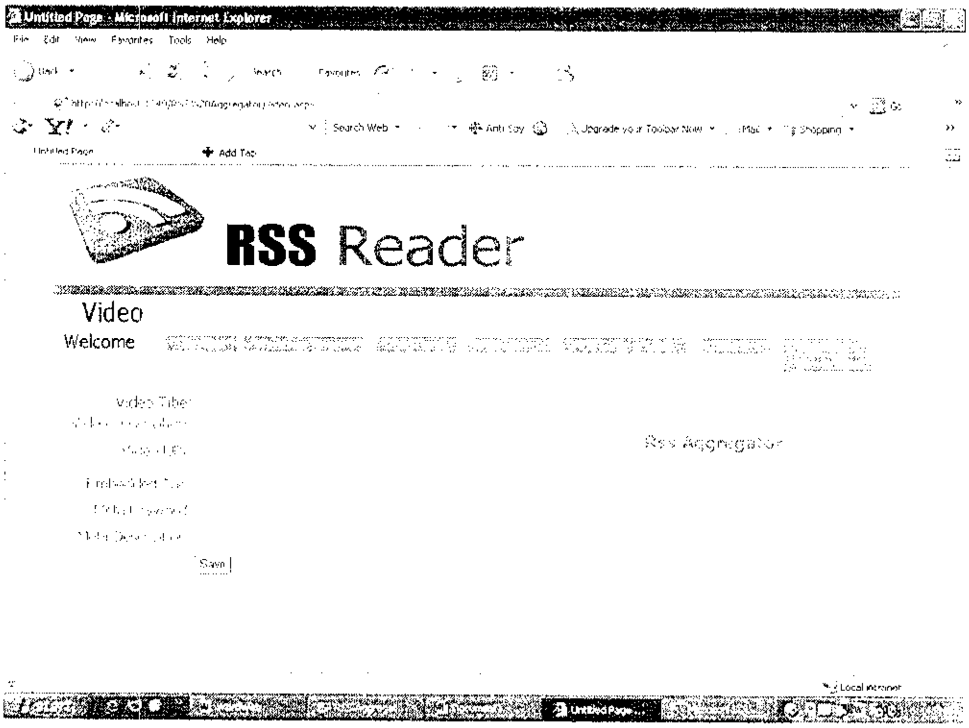
Add Feed

View Gallery Field


Untitled Page - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Go
Search Web
Upgrade your Toolbar Now
Mail
Shopping
Untitled Page
Add Tab
Artist concept of Orbiting Carbon Observatory
Done
Local intranet
Untitled Page ...



Add Video Feed



Untitled Page - Microsoft Internet Explorer

RSS Reader

Video

Welcome

Video Title

Video Description

Video URL

Embedded Text

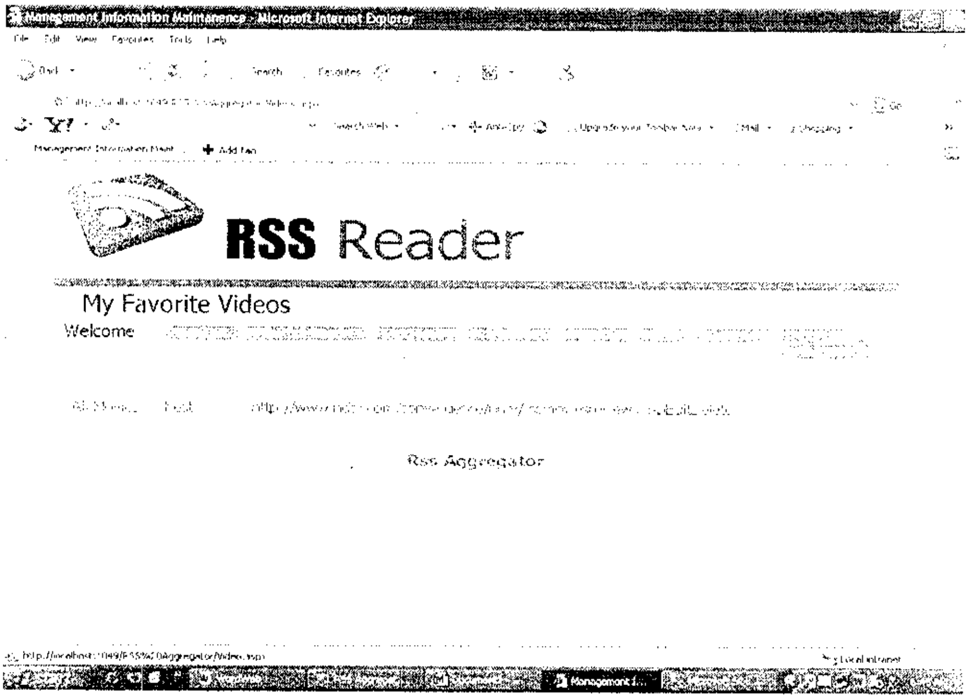
Meta Keyword

Meta Description

Save

Rss Aggregator

View Video Feed



Management Information Maintenence - Microsoft Internet Explorer

RSS Reader

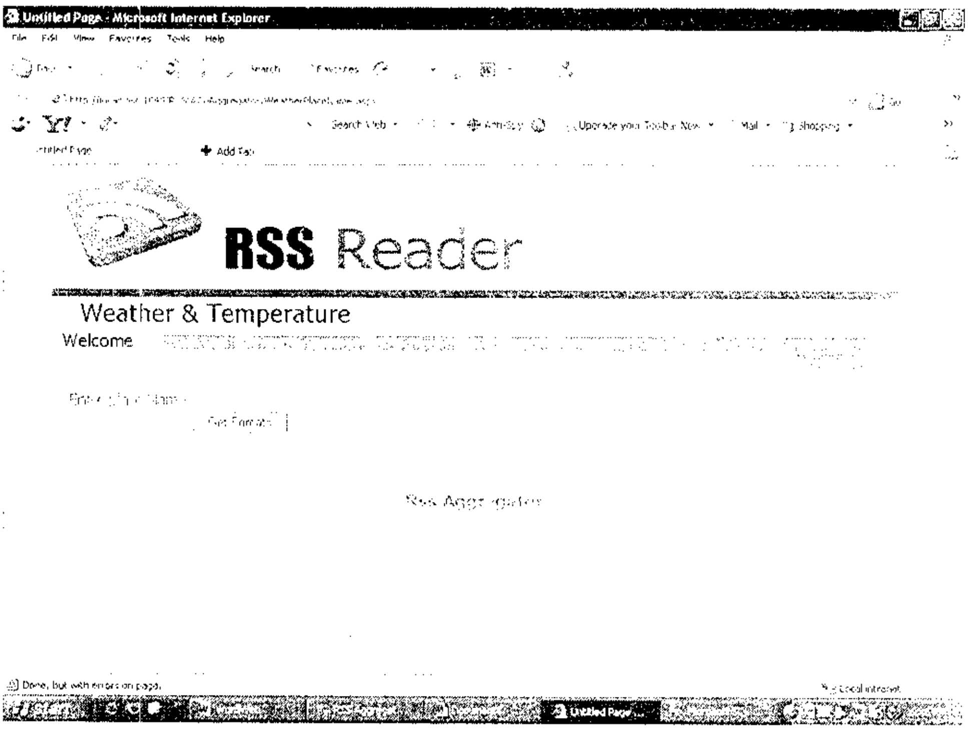
My Favorite Videos

Welcome

[illegible] Feed http://www.[illegible]

Rss Aggregator

Find Weather Report



Untitled Page - Microsoft Internet Explorer

RSS Reader

Weather & Temperature

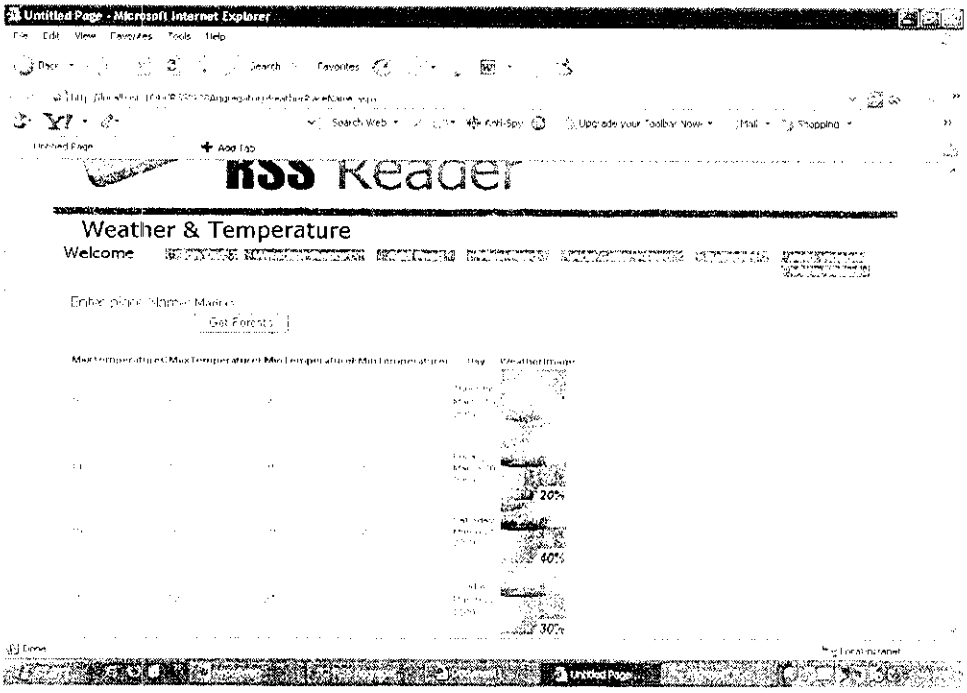
Welcome

Enter place Name :

Rss Aggregator

Done, but with errors on page.

View Weather Report



Untitled Page - Microsoft Internet Explorer

RSS Reader

Weather & Temperature

Welcome

Enter place Name: Madras

MaxTemperatureC MaxTemperatureF MinTemperatureC MinTemperatureF Day WeatherImage

Done

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