

Introduction to Online News Project

The Online News Portal has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Online News Portal, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of News Category, News, Sports News, Comment, Weather News. Every Online News Portal has different News needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executives who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

Abstract

The purpose of Online News Portal is to automate the existing manual system by the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Online News Portal, as described above, can lead to error free, secure, reliable and fast management's system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients.

Objective

The main objective of the Project on Online News Portal is to manage the details of News, News Category, Latest News, Sports News, Weather News. It manages all the information about News, Comment, Weather News, News. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The Purpose of the project is to build an application program to reduce the manual work for managing the News, News Category, Comment, Latest News. It tracks all the details about the Latest News, Sports News, Weather News.

Functionalities provided by Online News Portal are:

- Provides the searching facilities based on various factors.
Such as News, Latest News, Sports News, Weather News
- Online News Portal also manage the Comment details online for Sports News details, Weather News details, News.
- It tracks all the information of News Category, Comment, Sports News etc
- Manage the information of News Category
- Shows the information and description of the News, Latest News
- To increase efficiency of managing the News, News Category
- It deals with monitoring the information and transactions of Sports News.
- Manage the information of News
- Editing, adding and updating of Records is improved which results in proper resource management of News data.
- Manage the information of Sports News

Scope

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works related to Online News Portal. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Business process automation, i. e. we have tried to computerize various processes of Online News Portal.

- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
- In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.
- To assist the staff in capturing the effort spent on their respective working areas.
- To utilize resources in an efficient manner by increasing their productivity through automation.
- The system generates types of information that can be used for various purposes.
- It satisfy the user requirement
- Be easy to understand by the user and operator
- Be easy to operateHave a good user interface
- Be expandable
- Delivered on schedule within the budget.

Reports

- It generates the report on News, News Category, Comment
- Provide filter reports on Latest News, Sports News, Weather News
- You can easily export PDF for the News, Comment, Sports News
- Application also provides excel export for News Category, Latest News, Weather News
- You can also export the report into csv format for News, News Category, Weather News

Modules

- News Management Module : Used for managing the News details.
- Weather News Module : Used for managing the details of Weather News
- Comment Module : Used for managing the details of Comment
- News Category Management Module : Used for managing the information and details of the News Category.
- Latest News Module : Used for managing the Latest News details
- Sports News Module : Used for managing the Sports News information
- Login Module : Used for managing the login details
- Users Module : Used for managing the users of the system

Input Data and Validation

- All the fields such as News, Latest News, Weather News are validated and does not take invalid values
- Each form for News, News Category, Comment can not accept blank value fields
- Avoiding errors in data
- Controlling amount of input
- Integration of all the modules/forms in the system.
- Preparation test cases.
- Preparation of the possible test data with all the validation checks.
- Actual testing done manually.
- Recording of all the reproduced errors.
- Modifications done for the errors found during testing.
- Prepared the test result scripts after rectification of the errors.
- Functionality of the entire module/forms.
- Validations for user input.
- Checking of the Coding standards to be maintained during coding.
- Testing the module with all the possible test data.
- Testing of the functionality involving all types of calculations etc.
- Commenting standard in the source files.

The software quality plan we will use the following SZA

Strategy :

- In the first step, we will select the test factors and rank them.
The selected text factors such as reliability, maintainability,

portability, etc, will be placed in the matrix according to their ranks.

- The second step is for identifying the phases of the development process. The Phase should be recorded in the matrix.
- The third step is that identifying the business risks of the software deliverables. The risks will be ranked into three ranks such as high, medium and low.

Features

- Product and Component based
- Creating & Changing Issues at ease
- Query Issue List to any depth
- Reporting & Charting in more comprehensive way
- User Accounts to control the access and maintain security
- Simple Status & Resolutions
- Multi-level Priorities & Severities.
- Targets & Milestones for guiding the programmers
- Attachments & Additional Comments for more information
- Robust database back-end
- Various levels of reports available with a lot of filter criterias
- It contain better storage capacity.
- Accuracy in work.
- Easy & fast retrieval of information.
- Decrease the load of the person involved in existing manual system.
- Access of any information individually
- Easy to update information

Software Requirement Specification

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

The proposed system has the following requirements:

- System needs store information about new entry of News.
- System needs to help the internal staff to keep information of News Category and find them as per various queries.
- System need to maintain quantity record.
- System need to keep a record of Latest News.
- System need to update and delete the record.
- System also needs a search area.
- It also needs a security system to prevent data.

Feasibility Study

After doing the project Online News Portal, studying and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project. All projects are feasible - given unlimited resources and infinite time. Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

A. Economical Feasibility

We decided the technology based on minimum possible cost factor. All hardware and software cost has to be borne by the organization. Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs and later on running cost for system.

B. Technical Feasibility

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirement Specification (SRS).

C. Operational Feasibility

No doubt the proposed system is fully IUI based that is very user friendly and all inputs to be taken all self-explanatory even to a layman. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with the new system. The clients are comfortable and happy as the system has cut down their loads and doing.

System Design

In this phase, a logical system is built which fulfils the given requirements. Design phase of software development deals with transforming the clients requirements into a logically working system. Normally, design is performed in the following in the following two steps:

1. Primary Design Phase: In this phase, the system is designed at block level. The blocks are created on the basis of analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimising the information flow between blocks. Thus, all activities which require more interaction are kept in one block.

2. Secondary Design Phase: In the secondary phase the detailed design of every block is performed.

The general tasks involved in the design process are the following:

1. Design various blocks for overall system processes.
2. Design smaller, compact and workable modules in each block.
3. Design various database structures.
4. Specify details of programs to achieve desired functionality.
5. Design the form of inputs, and outputs of the system.
6. Perform documentation of the design.
7. System reviews.

User Interface Design

User Interface Design is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

The following steps are various guidelines for User Interface Design:

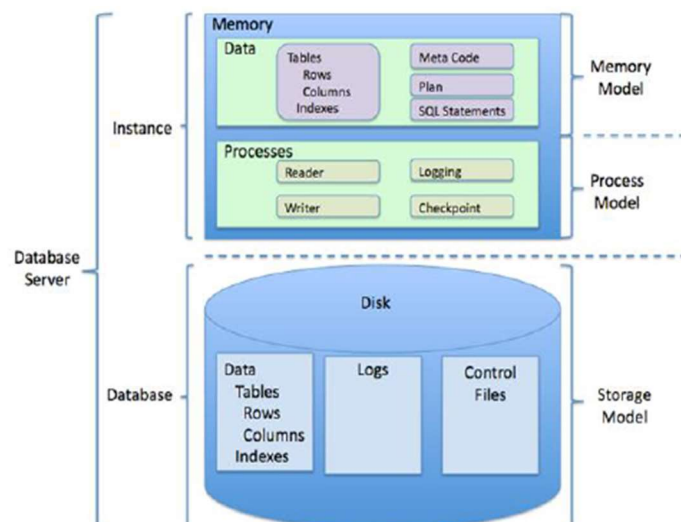
1. The system user should always be aware of what to do next.
2. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
3. Message, instructions or information should be displayed long enough to allow the system user to read them.
4. Use display attributes sparingly.
5. Default values for fields and answers to be entered by the user should be specified.
6. A user should not be allowed to proceed without correcting an error.
7. The system user should never get an operating system message or fatal error.

Project Category

Relational Database Management System (RDBMS): This is an RDBMS based project which is currently using MySQL for all the transaction statements. MySQL is an open source RDBMS System.

Brief Introduction about RDBMS: A relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as invented by E. F. Codd, of IBM's San Jose Research Laboratory. Many popular databases currently in use are based on the relational database model.

RDBMSs have become a predominant choice for the storage of information in new databases used for financial records, manufacturing and logistical information, personnel data, and much more since the 1980s. Relational databases have often replaced legacy hierarchical databases and network databases because they are easier to understand and use. However, relational databases have been challenged by object databases, which were introduced in an attempt to address the object-relational impedance mismatch in relational database, and XML databases.

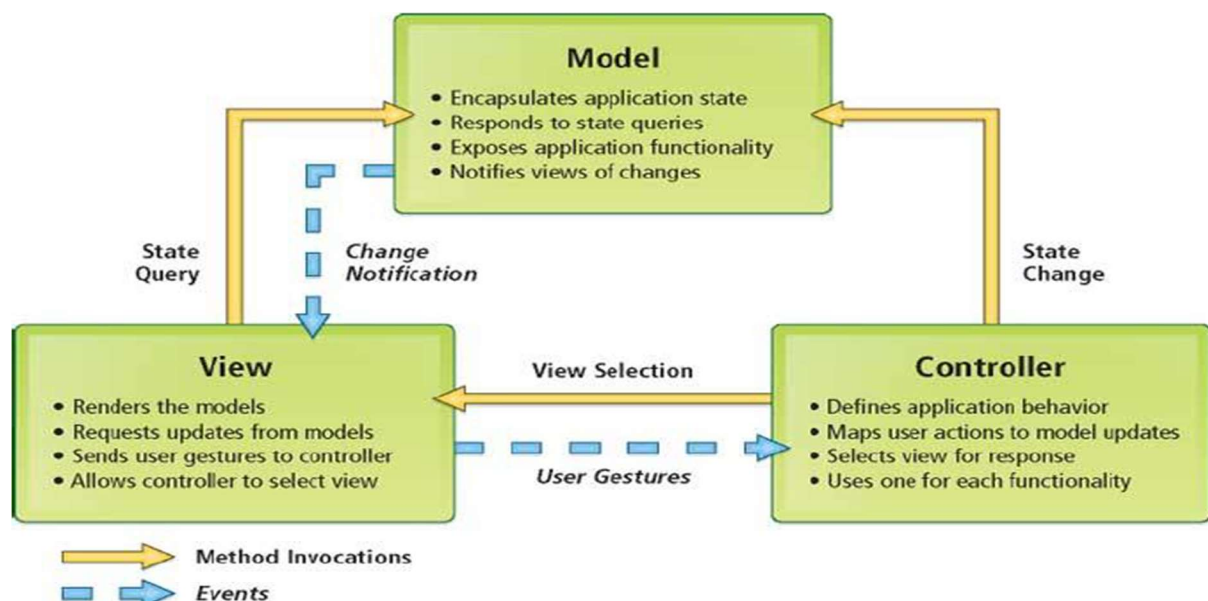


Implementation Methodology: Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:

- **Model** - The lowest level of the pattern which is responsible for maintaining data.
- **View** - This is responsible for displaying all or a portion of the data to the user.
- **Controller** - Software Code that controls the interactions between the Model and View.

MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response.

MVC (Model View Controller Flow) Diagram :



Project Planning: Software project plan can be viewed as the following:

1) Within the organization: How the project is to be implemented? What are various constraints (time, cost, staff)? What is market strategy?

2) With respect to the customer: Weekly or timely meetings with the customer with presentation on status reports. Customers feedback is also taken and further modification and developments are done. Project milestones and deliverables are also presented to the customer.

For a successful software project, the following steps can be followed:

- Select a project
 - Identifying project's aims and objectives
 - Understanding requirements and specifications o
 - Methods of analysis, design and implementation
 - Testing techniques
 - Documentation
- Project milestones and deliverables
- Budget allocation
 - Exceeding limits within control
- Project Estimates
 - Cost
 - Time
 - Size of code

- Duration
- Resource Allocation
 - Hardware
 - Software
 - Previous relevant project information
 - Digital Library
- Risk Management
 - Risk avoidance
 - Risk detection

Project Scheduling: An elementary Gantt chart or Timeline chart for the development plan is given below. The plan explains the tasks versus the time (in weeks) they will take to complete.

	January				Febraury				March			
Requirement Gathering												
Analysis												
Design												
Coding												
Testing												
Implement												
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4

Wi's are weeks of the months, for $i = 1, 2, 3, 4$

Cost estimation

Software cost comprises a small percentage of overall computer-based system cost. There are a number of factors, which are considered, that can affect the ultimate cost of the software such as - human, technical, Hardware and Software availability etc.

The main point that was considered during the cost estimation of project was its sizing. In spite of complete software sizing, function point and approximate lines of code were also used to size each element of the Software and their costing.

The cost estimation done by me for Project also depend upon the baseline metrics collected from past projects and these were used in conjunction with estimation variables to develop cost and effort projections.

We have basically estimated this project mainly on two bases –

1) Effort Estimation - This refers to the total man-hours required for the development of the project. It even includes the time required for doing documentation and user manual.

2) Hardware Required Estimation - This includes the cost of the PCs and the hardware cost required for development of this project.

Tools/Platform, Hardware and Software Requirement Specification:

Software Requirements:

Name of Component	Specification
Operating System	Windows 98, Windows 7, Windows 8, Windows 10, Linux
Language	Java 2 Runtime Environment
Database	MySQL Server
Browser	Any of Mozilla, Chrome, etc
Web Server	Tomcat 7
Software Development Kit	Java JDK 1.7 or above
Scripting Language Enable	JSP(Java Servlet Pages)
Database JDBC Driver	MySQL JConnector

Hardware Requirements:

Name of Component	Specification
Processor	Pentium III 630MHz
RAM	120Mb
Hard Disk	20Gb
Monitor	15" color monitor
Keyboard	122 keys

Use Case Model

The use case model for any system consists of “use cases”. Use cases represent different ways in which the system can be used by the user. A simple way to find all the use case of a system is to ask the questions “What the user can do using the system?” The use cases partition the system behavior into transactions such that each transaction performs some useful action from the users' point of view.

The purpose of the use case to define a piece of coherent behavior without revealing the internal structure of the system. A use case typically represents a sequence of interaction between the user and the system. These interactions consists of one main line sequence is represent the normal interaction between the user and the system. The use case model is an important analysis and design artifacts (task). Use cases can be represented by drawing a use case diagram and writing an accompany text elaborating the drawing.

In the use case diagram each use case is represented by an ellipse with the name of use case written inside the ellipse. All the ellipses of the system are enclosed within a rectangle which represents the system boundary. The name of the system being modeled appears inside the rectangle. The different users of the system are represented by using stick person icon. The stick person icon is normally referred to as an Actor. The line connecting the actor and the use cases is called the communication relationship. When a stick person icon represents an external system it is annotated by the stereotype <<external system>>.

Security Testing

Testing is vital for the success of any software. no system design is ever perfect. Testing is also carried in two phases. first phase is during the software engineering that is during the module creation. second phase is after the completion of software. this is system testing which verifies that the whole set of programs hung together.

White Box Testing: In this technique, the close examination of the logical parts through the software are tested by cases that exercise species sets of conditions or loops. all logical parts of the software checkedonce. errors that can be corrected using this technique are typographical errors, logical expressions which should be executed once may be getting executed more than once and error resulting by using wrong controls and loops. When the box testing tests all the independent party within a module a logical decisions on their true and false side are exercised , all loops and bounds within their operational bounds were exercised and internal data structure to ensure their validity were exercised once.

Black Box Testing: This method enables the software engineer to device sets of input techniques that fully exercise all functional requirements for a program. black box testing tests the input, the output and the external data. it checks whether the input data is correct and whether we are getting the desired output.

Alpha Testing: Acceptance testing is also sometimes called alpha testing. Bespoke systems are developed for a single customer. The alpha testing proceeds until the system developer and the customer agree that the provided system is an acceptable implementation of the system requirements.

Beta Testing: On the other hand, when a system is to be marked as a software product, another process called beta testing is often conducted. During beta testing, a system is delivered among a number of potential users who agree to use it. The customers then

report problems to developers. This provides the product for real use and detects errors which may not have been anticipated by the system developers.

Unit Testing: Each module is considered independently. it focuses on each unit of software as implemented in the source code. it is white box testing.

Integration Testing: Integration testing aims at constructing the program structure while at the same constructing tests to uncover errors associated with interfacing the modules. modules are integrated by using a top down approach.

Validation Testing: Validation testing was performed to ensure that all the functional and performance requirements are met.

System Testing: It is executing programs to check for logical changes made in it with the intention of finding errors. a system is tested for online response, volume of transaction, recovery from failure, etc. System Testing is done to ensure that the system satisfies all the user requirements.

Implementation and Software Specification Testings:

Detailed Design of Implementation:

This phase of the systems development life cycle refines hardware and software specifications, establishes programming plans, trains users and implements extensive testing procedures, to evaluate design and operating specifications and/or provide the basis for further modification.

Technical Design: This activity builds upon specifications produced during new system design, adding detailed technical specifications and documentation.

Test Specifications and Planning: This activity prepares detailed test specifications for individual modules and programs, jobstreams, subsystems, and for the system as a whole.

Programming and Testing: This activity encompasses actual development, writing, and testing of program units or modules.

User Training: This activity encompasses writing user procedure manuals, preparation of user training materials, conducting training programs, and testing procedures.

Acceptance Test: A final procedural review to demonstrate a system and secure user approval before a system becomes operational.

System Analysis

System analysis is a process of gathering and interpreting facts, diagnosing problems and the information about the Online News Portal to recommend improvements on the system. It is a problem solving activity that requires intensive communication between the system users and system developers. System analysis or study is an important phase of any system development process. The system is studied to the minutest detail and analyzed. The system analyst plays the role of the interrogator and dwells deep into the working of the present system. The system is viewed as a whole and the input to the system are identified. The outputs from the organizations are traced to the various processes. System analysis is concerned with becoming aware of the problem, identifying the relevant and decisional variables, analyzing and synthesizing the various factors and determining an optimal or at least satisfactory solution or program of action. A detailed study of the process must be made by various techniques like interviews, questionnaires etc. The data collected by these sources must be scrutinized to arrive to a conclusion. The conclusion is an understanding of how the system functions. This system is called the existing system. Now the existing system is subjected to close study and problem areas are identified. The designer now functions as a problem solver and tries to sort out the difficulties that the enterprise faces. The solutions are given as proposals. The proposal is then weighed with the existing system analytically and the best one is selected. The proposal is presented to the user for an endorsement by the user. The proposal is reviewed on user request and suitable changes are made. This is loop that ends as soon as the user is satisfied with the proposal. Preliminary study is the process of gathering and interpreting facts, using the information for further studies on the system. Preliminary study is problem solving activity that requires intensive communication between the system users and system developers. It does various feasibility studies. In these studies a rough figure of the system activities can be obtained, from which the decision about the strategies to be followed for effective system study and analysis can be taken.

Existing System of Online News Portal: In the existing system the exams are done only manually but in proposed system we have to computerize the exams using this application.

- Lack of security of data.
- More man power.
- Time consuming.
- Consumes large volume of pare work.
- Needs manual calculations.
- No direct role for the higher officials.

Proposed System of Online News Portal: The aim of proposed system is to develop a system of improved facilities. The Proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

- Security of data.
- Ensure data accuracy.
- Proper control of the higher officials.
- Minimize manual data entry.
- Minimum time needed for the various processing.
- Greater efficiency.
- Better service.
- User friendliness and interactive.
- Minimum time required.