

**Tribhuvan University**

**Mechi Multiple Campus**

**A Final Year Project Report**

**On**

**“ONLINE NEWS PORTAL”**

**Under the Supervision of**

**Raju Poudel**

**Submitted to**

**Department of Humanities and Social Science**

**Mechi Multiple Campus**

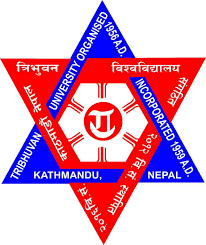
**In partial fulfillment of the requirements for the Bachelor Degree in Computer Application**

**Submitted by**

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**May 23, 2022**



**Tribhuvan University**

**Faculty of Humanities and Social Sciences**

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**Supervisor’s Recommendation**

I hereby recommend that this project prepared under my supervision by Mr. Susil Poudel and Mr. Himal Poudel entitled **Online News Portal** in partial fulfillment of the requirements for the degree of Bachelor of Computer Application is recommended for the final evaluation.

**SIGNATURE**

Raju Poudel

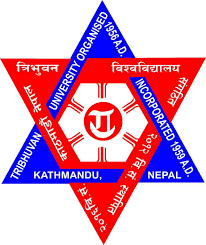
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**LETTER OF APPROVAL**

This is to certify that this project prepared by Mr. Susil Poudel and Mr. Himal Poudel entitled “**Online News Portal**” in partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

|  |  |
| --- | --- |
| …………………………………  Raju Poudel  (Supervisor) | ……………………….……..  Krishna Prashad Acharya  (Director, BCA) |
| ………………………………  Internal Examiner | …………………………….  External Examiner |

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Susil Poudel

Himal Poudel

# Abstract

The aim of the project Online News Portal is to publish news online on the internet so that anyone can have access to worldwide events through the portal. The project focuses on providing a good user experience and easy news access to its subscribers, based on his/her interest, through the use of appropriate algorithms. Online news portal allows reporters to publish news instantly from anywhere around the world and subscriber read news from anywhere around the world. News are of specific category. User can browse news on the basis of categories they are interested in and can express their views on certain topics through comments. The portal also allows reporters to manage video interviews with various guests as well.

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**List of Abbreviations**

HTML HyperText Markup Language

ASP Active Server Page

NET Network Enabled Technologies

CSS Cascading Style Sheet

EF Entity Framework

ML Machine Learning

API Application Programming Interface

# Chapter 1: Introduction

* 1. **Introduction**

An online news portal is an access point to news through internet. Today, every media house who publishes news on paper media also runs a news portal simultaneously to attract visitors or make a base of subscribers. Along with media house individuals and organizations also seem to keep a lot of interest in launching a news portal since it is also a means to generate revenue via advertisements.

A news portal is an access point to news. This is generally thought of as a Internet connection to a news source but the definition of a “Portal” would include a newspaper, magazine or any other access to news. A web portal is any access point to the Internet.

News Portal is the ultimate magazine theme with creative design and powerful features that allow you to quickly and easily create a style to suit your needs. It is completely built on Customizer which allows you to customize most of the theme settings easily with live previews.

* 1. **Problem Statement**

The problems in current paper-based publication house are:

* Printed material needs to be transported to destination.
* Breaking news system cannot be implemented on paper based system.
* Timely updates of news to subscribers are not possible.
* Subscriber cannot customize their news preference.
* Interaction with the portal to publish subscriber’s views on news is not easy.
  1. **Objectives**

The objectives of the Online News Portal are

* To manage the details of latest news, interviews, advertisement and media.
* To provide customized news to subscribers based on their interest.
* To allow subscribers to express their views on news through means of comments.
  1. **Scope and Limitation**

This is ambitious project as the software handles tens of thousand of clients and software displays it accordingly. The scope may depend upon business policy of company implementing this project.

Limitation of the project is that the system doesn’t identify if the news is fake or not. For now multiple images cannot be implemented in the same news. Interactive advertisement cannot be implemented. Uploading videos and live interview broadcasting is not don’t directly through this site (though this can be do throughyoutube).

* 1. **Development Methodology**

The project Online News Portal is developed using Waterfall model as system development life cycle. The project is relatively complex but the requirements and rigid and well defined. Similar systems are abundantly developed with similar concepts hence it will easier for the project members to understand the functional and non functional requirements of the system.

Development steps in waterfall model are simple and non repetitive. This model is best for projects that have well defined requirements. Since, requirements for this project were well defined and fixed, project cost was low and risk was minimal, the project members choose waterfall model for the development of the system.

* 1. **Report Organization**

This document contains 5 chapters which are described in brief below.

Chapter 1 deals about general introduction of the system. It answers “what the system is?”, “What this system does?” It also states problems with existing systems, Objective of the project, scope, limitationsand development methodology used while developing the project in detail.

Chapter 2 contains two sections: Background Study and Literature Review of the project. It describes the fundamental theories of the project, the idea behind the project, general concept and terminologies related to the project. The second section has reviews related to similar projects, their theories and research done by the project researchers.

Chapter 3 is system analysis and design. The system analysis part explains how the system is built, which system development model is used. Requirement is specified, both functional and non-functional. It also discusses about feasibility study of the project.

The system design consists of heart of this project. Different diagrammatic representation of the system like system architecture, context diagram and data flow diagram, use case diagram, sequence diagram, state diagram, class diagram, database design, UI/UX mechanism are drawn here.

Chapter 4 is system implementation and testing. This chapter explains how the system is implemented. It describes tools used to developed the system such as programming language used, database platform used to store data etc.

The testing part of this chapter describes about the testing phase of the application. It has number of tables that represents test cases of unit testing and system testing and their outputs.

Chapter 5 is the conclusion part of the project. It is all about the outcome of the project, things that the project member learnt during the course of the project. Similarly, it also includes things that the project member could not address during this project as limitation sand addressing those limitation in future enhancements.

# Chapter 2: Background Study and Literature Review

* 1. **Background Study**

As the versatility of computer became well known different business shift towards using computers in order to increase their areas of reach. News publishing house too chose it to go online. This made news accessible through the means of internet to all. Publishing house could publish news in any instance of time unlike previous practice where they used to publish just once a day. Online news portal were designed to make news article accessible through the means of internet and best part of it is news can be uploaded in any time so viewers stay informed as fast as possible.

An early example of an "online-only" newspaper or magazine was *(PLATO) News Report*, an online newspaper created by Bruce Parrello in 1974 on the PLATO system at the University of Illinois [1]. With rapid and exceptional growth of technology around the globe, news industry has been undergone many changes. Most of the news agencies started online news portal services and introduced e-papers. Since the number of people who are using Internet is quickly increasing day by day, the growth of online readership and online news portals will be in heights in the coming years. There has been significant growth in the online readership of news and information content in the past years. According to a National Readership Survey (UK), in the second quarter of 2016, ‘The Independent’ had a total audience of 21.1 million each month, a rise of 46% from its readership in the second quarter of 2015[2]. In India, though print media is growing despite its decline in all the other markets, a quick growth in online news readership is expected. Based on a survey by comScore in 2013, a significant growth was seen in the Indian daily readership of online news with an increase of 34 per cent to 9.4 million average daily visitors[2].

In Nepal **'The Kathmandu Post'** started its online version publication in 1995AD as a joint venture with Mercantile Communication under the domain www.southasia.com which was hosted by Mercantile. The first Nepalese online page to host on its own domain is **Himal South Asia**under the domain www.himalmag.com. [3]

* 1. **Literature Review**

When printed newspapers were in mainstream, it used to be published once a day from different geographical location and used to be distributed accordingly to near areas. Problem there was, no matter how big the news was, it used to be printed along with other minor news the next day.

Since it used to be printed in selected few locations, physical paper needed to be transported to the desired destination. If the destination is far it takes more time. Also, more human resources were needed in that process.

The proposed new system has several advantages over the existing system as new content can be added as soon as it is reported. Since it is delivered through web 2.0 transportation cost and publication cost tends to zero.

[4]Gopal Sarkarkar and Priyanka Rangari did research on online news portal (Centraltimes.in) and found out people prefer online form of news than paper based news. According to the authors, people today have no time to be updated through newspaper or by watching or listening the news on television or radios. People today need to be updated on daily basis. Hence, they made an attempt to develop a News or information-based website that helps the people and make people aware so that they can know any news at any time.

The existing system is fully manual. Each person has to wait for the newspaper to arrive. There is payment for each day newspaper. A user will have to spend more time browsing to find the updates of particular news. This may lead to wastage of time, if the page containing the information is unknown to the user. The main disadvantage is that there will be lot of difficulties for the user to find the specified news updates for his/her choice of category.

Fredin (1997) conceptualized online news stories as being truly non-linear documents that "through their invitational structure may bring a more flexible and profound understanding of issues than many people are currently able to get as a practical matter from existing media" (p. 39). He contended that simply offering external links in stories was insufficient to satisfy the needs of online news consumers. He envisioned narratives built in sections and associated via hypertext that blurred the distinction between traditional, stand-alone stories offered by news outlets. These narratives, he called "metastories," would include features such as on-demand glossaries of frequently referenced names and topics, and also functions that would allow users to apply their own summaries to specific story elements. The goal was to allow users to construct their own stories by choosing the story elements that interested them.

Print media thrive on readership. As has been briefly mentioned above, media houses count on readers to keep their sites running. Variety and the consequent competitiveness helped by the internet makes it necessary for these media houses to adopt suitable ways to attract and retain more readers.

For this reason, various media houses have adopted a number of audience-based tactics. Since the primary objective is to win and retain these customers, the news content, which is the primary product that these media houses are selling, becomes only a small part of the overall methods used to win readers (Valentine 2011, p. 65).

For instance, Bowman and Willis (2003, p. 7) pointed out how MSNBC.com, CNN, Washington Post and The Wall Street Journal offered their readers certain degrees of personalization on their sites’ front pages. Personalization means that readers can customize the portals to satisfy some of their tastes.

Also, another phenomenon of online activity is what Erdelez (1995, p. 20) referred to as information encountering. This is the ability of the internet to get readers to news without them really intending to. This thrives upon the opportunistic reading habits and emotional response of the readers.

Tewksbury et al. (2001, p. 34) argued that due to the prevalence of news online, many people come by news items without necessarily setting out to find the news. In the same line, Nguyen (2008) agrees that the structure of online media has facilitated unintended encounter of news and its reading.

What these examples reveal is that it is not only the place of readers to keep the get to the site. While the end target is humans, there are other elements of the internet that helps keep the sites running. The irony here is that people may not really go to the site for the purpose of reading the news, but maybe to reach a gateway to other portals.

But the fact still remains that they have gotten the readers to their site. Another Irony is that the very nature of internet structure that leads readers to these sites may be the same thing that directs them away. Nonetheless, the case of New.com.au shows clearly just how important readers are to keeping news website running.

News.com.au has also adopted a readers-centered tactic of retaining its readers. This has involved different forms of reader-participation. For instance, readers participate in the site by posting their comments on various issues on the company site.

These posts include the reader’s reaction(s) to various issues, including the news or certain new adoptions in the site-structure and organization, amongst others. This paper will show that this reader-centered tactic is having a positive effect on winning readers to their online portal.

As it were, this tactic has been a direct way to hear what the readers want from their own lips. The company has an online portal dedicated to collecting the readers’ views fro critical assessment and evaluation. It has constantly used the information from the readers to know what they perceive as negative and make necessary adjustments.

[5]Normala Binti Che Eembi @ Jamila, Iskandar Bin Ishaka, Fatimah Sidia, Lilly Suriani Affendeya, Ali Mamata did a study is tostructure and analyzed the literature related to data veracity research that can be used to the profile of digital news portal. The results come out with objectives in data veracity, the structure of research topics, research trends with publications and framework veracity modelvalidated. Through data veracity, four components of trustworthiness, availability, accountability and authenticity can be measured. Incorrect data can cause a lot of problems for news reporting. Therefore, we need to ensure that the data is correct as well as the analyses performed on the data are correct. Thy made sure that both the data and the analyses are correct especially in automated decision-making where no human is involved anymore. In their paper, they provided a complete review of literature related to profiling digital news portal in dataveracity.

During their research they found 127 articles and 130 articles for empirical study. 66 articles contained descriptions of data veracity models for presentation purposes or details for other research aims. Only 23 items compared different veracity techniques or models regarding structure, applicability or processes. Excitingly, only 12 articles in theoretical issues. Finally, six items could not be classified into the other concepts.

# Chapter 3: System Analysis and Design

* 1. **System Analysis**
     1. **Requirement Analysis**
        1. **Functional Requirements**

Main functional requirements of Online News Portal for various actors are summarized in following points.

**Functional Requirements for Admin**

* Manage Advertisements.
* Define new news categories.
* Publish news.
* Manage user roles and permissions.

**Functional Requirements for Editor**

* Add new news.
* Publish/Unpublish news.
* Edit news.
* Define new news categories.

**Functional Requirements for Reporter**

* Add new news.
* Edit unpublished news.

**Functional Requirements for User**

* View News.
* Rate, comment and like news.

Functional requirements for the project can be visually represented with the following use case diagram. The system has four actors and each of their requirements in the system is represented in the diagram below.

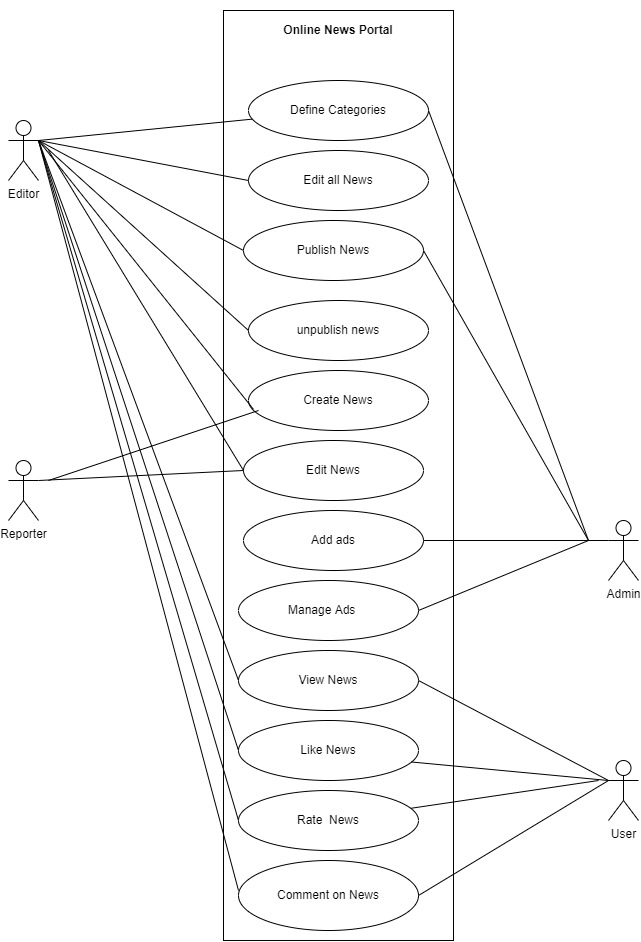


Figure 1: Functional Requirements using Use Case diagram

* + - 1. **Non-Functional Requirements**
    - Design should be eye friendly and proper hyperlink should be placed so that navigation to user becomes easier.
    - Tracking of explicit contents on news.
    - Reporting should be impartial and should not promote any political or religious ideologies that may affect others.
    - The system should provide news coverage from all around the world.
    - The system should be robust from any external threat.
      1. **Feasibility Analysis**
  1. **Technical**
     1. The system is technically feasible as the requirements for development of the system are well defined and general. The project doesn’t seem to need much expertise on as the objectives of the project are simple. The project members have gained enough knowledge to implement the system and have been doing similar projects throughout the course of their study.
  2. **Operational**

The system is easy to operate with the basic knowledge of computer and internet. As the UI/UX is simple and intuitive well trained man power is not necessary. It will overcome many problems which are faced in paper based newspaper system as subscribers can easily access the system as it is user friendly in many aspects with good UI. Moreover, due to the use algorithms, subscribers can read news based on their interest without any hassle.

* 1. **Economic**

The system is economically feasible as the system is small with well-defined requirements. The functional requirements are limited and hence small number of project members can complete the project. Because of small nature of the project, minimum hardware and software tools are required which makes the project economically feasible.

* 1. **Schedule**

The requirements of the projects are well defined and do not change as often. Also risk is minimal for the project and project members have completed many similar projects in the past. There are two project members so the project can be completed within deadline as both members can work on the project at the same time. One member can perform works related to coding and documentation whereas other member can collect requirements and design the system.

This table below indicates different aspect of feasibility:

Table 1: Feasibility Analysis

|  |  |  |
| --- | --- | --- |
| **Feasibility Parameters** | **Types of feasible study** | **Is Feasible?** |
| Required devices? | Technical | Yes |
| Skilled manpower available? | Technical | Yes |
| Can be handled economically? | Technical | Yes |
| Is functional? | Operational | Yes |
| Manpower to operate? | Operational | Yes |
| Is according to law? | Legal | Yes |
| Will it be completed in time? | schedule | Yes |

* + - 1. **Planned Gantt Chart**

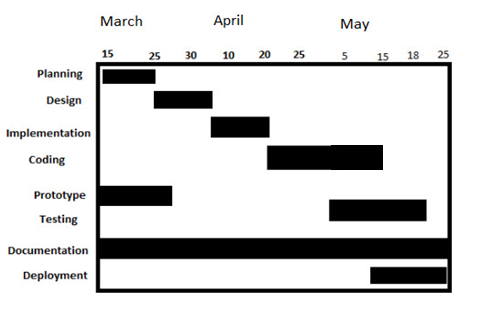
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Figure 2: Gantt Chart

* + 1. **Object Modeling using Class and Object Diagrams**

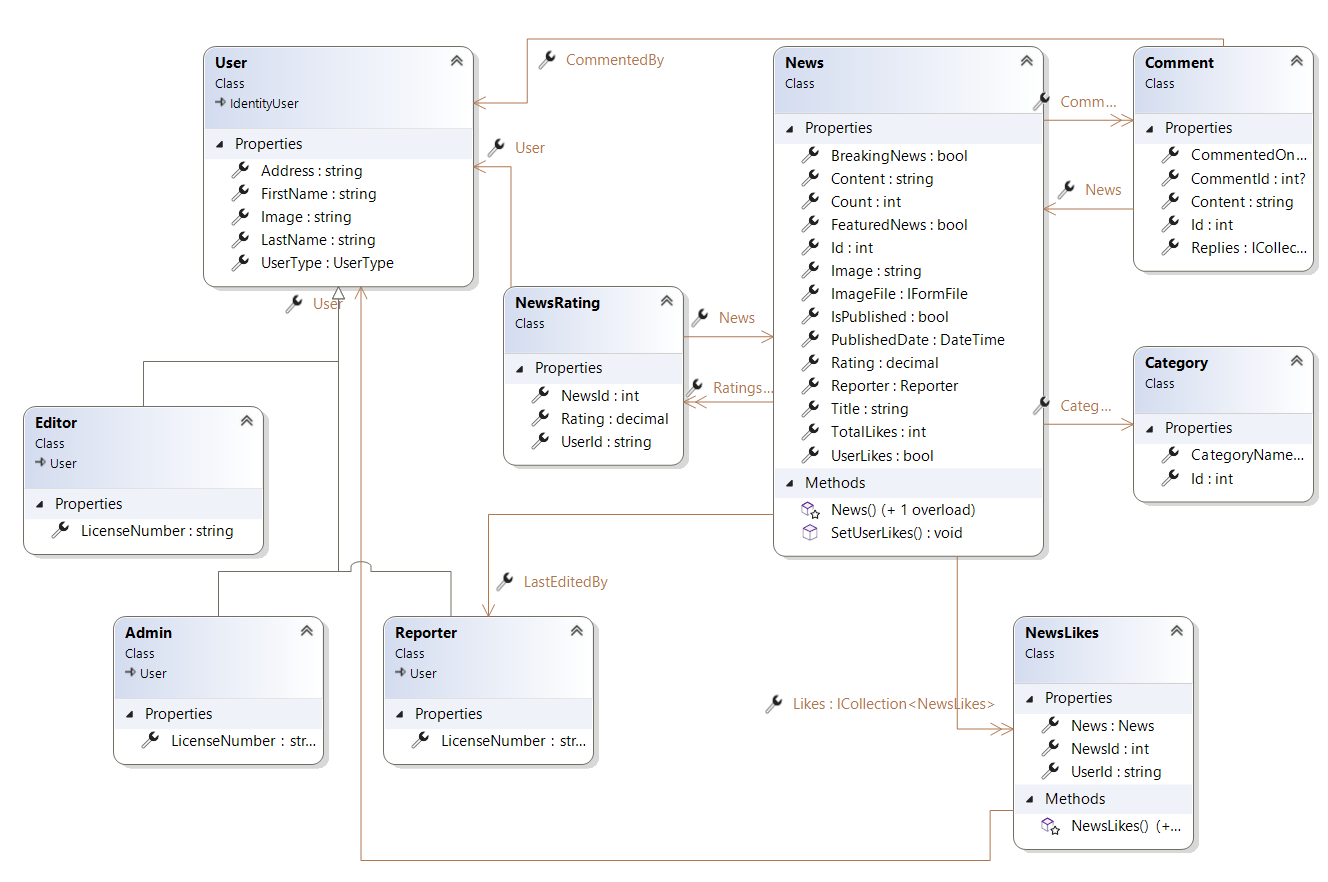


Figure 3: Class Diagram

* + 1. **Dynamic Modeling using State and Sequence Diagrams**

**State Diagram**

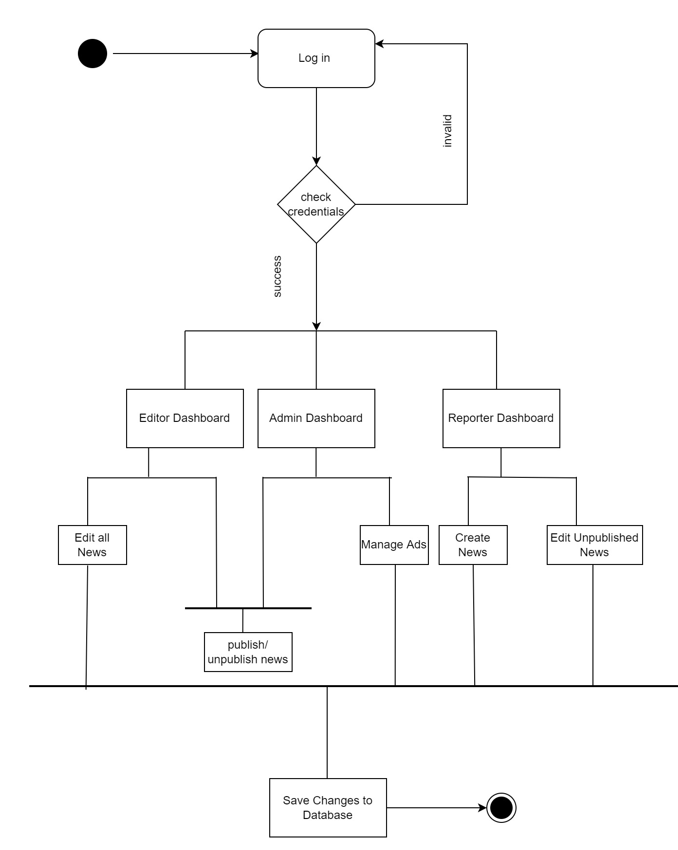


Figure 4: State Diagram

**Sequence Diagram**

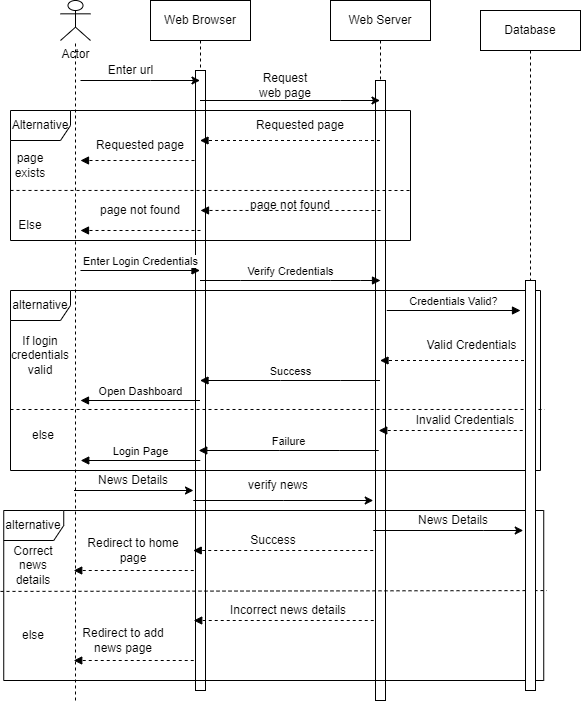
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Figure 5: Sequence Diagram

* + 1. **Process Modeling using Activity Diagrams**

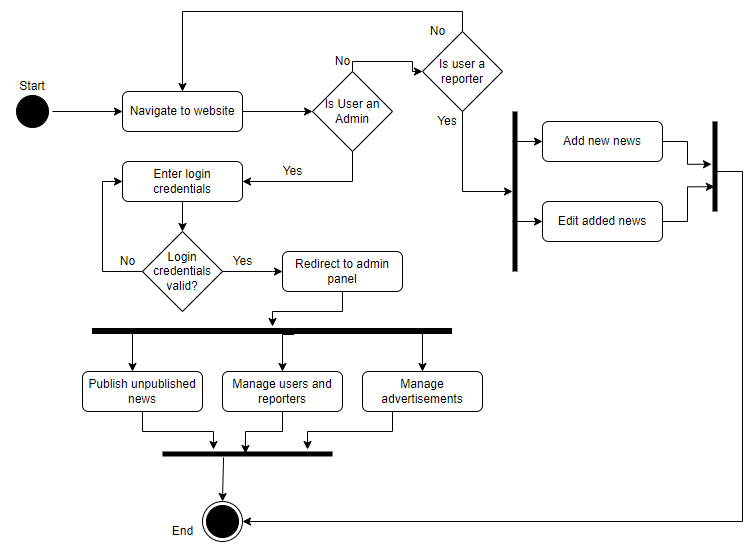
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Figure 6: Activity Diagram

* 1. **System Design**
     1. **Component Diagrams**

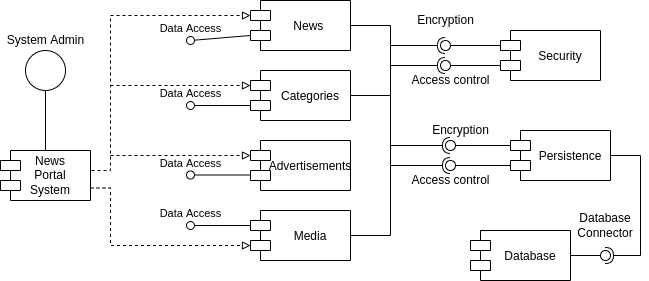


Figure 7: Component Diagram

* + 1. **Deployment Diagrams**

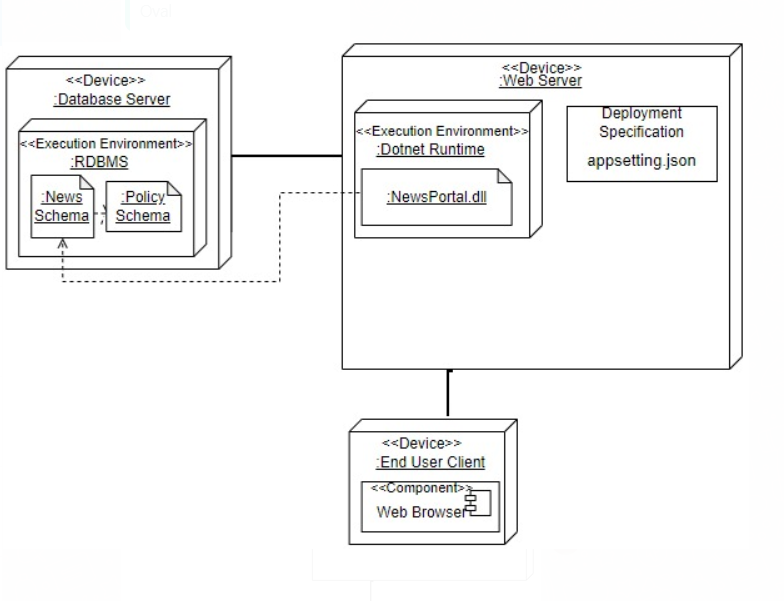


Figure 8: Deployment Diagram

* 1. **Algorithm Details**

1. **Depth First Search**

We have implemented Depth first search in comment section and in its threads.

DFS is a recursive traversal algorithm for searching all the vertices of a graph or tree data structure. It starts from the first node of graph G and then goes to further vertices until the goal vertex is reached.

DFS uses stack as its backend data structure edges that lead to an unvisited node are called discovery edges while the edges that lead to an already visited node are called block edges.

**DFS procedure**

DFS implementation categorizes the vertices in the graphs into two categories:

1. Visited
2. Not visited

The major objective is to visit each node and keep marking them as “visited” without making any cycle.

Steps for DFS algorithms:

1. Start by pushing starting vertex of the graph into the stack

2. Pop the top item of the stack and add it to the visited list

3. Create the adjacency list for that vertex. Add the non-visited nodes in the list to the top of the stack

4. Keep repeating steps 2 and 3 until the stack is empty.

In our implementation, a comment can have any number of replies and each reply can have any number of replies. For listing comment we take any top level comment as root node and traverse its replies one at a time. The root node is pushed in visited list and its replies into stack. One reply is popped from the stack and its child reply nodes are traversed and pushed into the stack. The previously popped reply node is pushed into visited list.

Another reply node is popped from the top of the stack and its children are traversed and pushed into stack. The reply node is pushed into visited list. This process is continued until all the nodes are pushed into visited list.

1. **Logistic Regression**

We used this algorithm to classify different category of news.

Logistic regression is a supervised learning algorithm. It is used for predicting the categorical dependent variable using a given set of independent variables. It is generally used for binary classification but can work well with multiclass classification.

Logistic regression uses a sigmoid function and a concept of threshold value. First the binary classes are vectorized as 0 or 1.

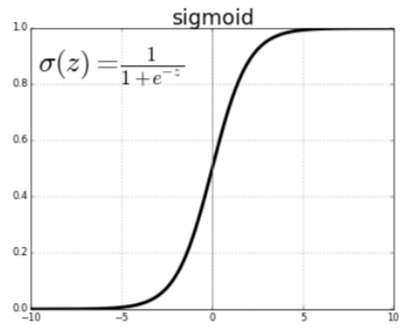


Figure 9: Sigmoid function graph

The logistic function gives a value that ranges from 0 and 1 for a given input z. The algorithm uses threshold value concept to classify the given data vector to binary classes (yes or no, sick or healthy, cat, dog etc). If the value of the sigmoid function for the input vector is less than the threshold value, the data vector is classified as class A and if the value is greater than threshold value, it is categorized as class B.

**Steps for Logistic Regression**

1. **Data Pre-processing step.**

The project members obtained News Category Dataset From Kaggle. The dataset was cleaned by dropping columns that are irrelevant for fitting our model. Only heading, content and label columns were kept. The dataset was splitted into train and test set in 4 : 1 ratio. Since the dataset was text based it was vectorized into number vector based on number of times a word is repeated in a feature vector.

1. **Fitting Logistic Regression to the Training set**

Once the dataset is cleaned, data was feed into the logistic function. The logistic function is implemented by the LogisticRegression method of ML.Net. This step will give us trained machine learning model.

1. **Predicting the test result**

The trained model is then tested on the test dataset. News heading and its content were given as input to the model to predict its category. The model then predicts the category based on the logistic function.

1. **Test accuracy of the result(Creation of Confusion matrix)**

The accuracy was tested by creating the confusion matrix. The accuracy of the model was 0.6578141371806239 which is 65 percent.

We have implemented logistic regression algorithm to predict the category of news when adding new news. The model takes news heading and news content as input to predict the category of news. If the prediction is accurate, new news is created with the predicted category else the user is prompted to insert news category manually.

# Chapter 4: Implementation and Testing

* 1. **Implementation**
     1. **Tools Used**

News Portal is a web based system that is accessed through the Internet. The system uses HTML, CSS and JavaScript as front end languages to generate the user interfaces viewed on client machines and c# as backend language. The system runs on any platform and is hosted on IIS or Kestrel server. The system uses Sqlite as database for development and it will be upgraded to use MySQL as database server.

Visual Studio is used as Integrated Development Environment for writing codes for the project. Git is used as version control tool and GitHub is used as remote repository.

* 1. **Testing**
     1. **Test cases for Unit Testing**

Table 2: Test cases for email validation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. N | Test Cases | Expected Outcome | Actual Outcome | Remarks |
| 1 | Email address without @ symbol | Invalid email address | Invalid email address | Pass |
| 2 | Email address with @ but without . symbol | Invalid email address | Invalid email address | Pass |
| 3 | Email address of @ and . symbols only | Invalid email address | Invalid email address | Pass |
| 4 | Email address with letters, @ and . symbols | Accept it | Accepted | Pass |

Table 3: Test cases for password verification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. | Test Cases | Expected | Actual Outcome | Remarks |
| N |  | Outcome |  |  |
|  |  |  |  |  |
| 1 | Password length less than 8 | Password length | Password length | Pass |
|  |  | must be greater | must be greater |  |
|  |  | than or equal to 8 | than or equal to 8 |  |
|  |  |  |  |  |
| 2 | Password length greater than 16 | Password length | Password length | Pass |
|  |  | must be less than | must be less than |  |
|  |  | or equal to 16 | or equal to 16 |  |
|  |  |  |  |  |
| 3 | Password without a capital letter | Password must | Password must | Pass |
|  |  | contain a capital | contain a capital |  |
|  |  | letter | letter |  |
|  |  |  |  |  |
| 4 | Password without a special | Password must | Password must | Pass |
|  | character | contain a special | contain a special |  |
|  |  | character | character |  |
|  |  |  |  |  |

Table 4: Test cases for phone number validation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. N | Test Cases | Expected Outcome | Actual Outcome | Remarks |
| 1 | Phone number length less than 9 and greater than 10 | Invalid phone number | Invalid phone number | Pass |
| 2 | Phone number length between 9 and greater than 11 | System should accept it | Accepted | Pass |

Table 5: Test cases for adding new news

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | | | |  |  | | |  |
| **S.** |  | **Test Cases** | **Expected Outcome** | | | |  | **Actual Outcome** | | | **Remarks** |
| **N** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | | | |  |  | | |  |
| 1 |  | News with no title | Error. News should | | | |  | News should have | | | Pass |
|  |  |  | have title. | | | |  | title. | | |  |
|  |  |  |  | | | |  |  | | |  |
| 2 |  | News with no content | Error. Title is required. | | | |  | Error. News should | | | Pass |
|  |  |  |  |  |  |  |  | have title. | | |  |
|  |  |  |  | | | |  |  | | |  |
| 3 |  | News without images | No Error. Image field | | | |  | No Error. Image field | | | Pass |
|  |  |  | is not mandatory. | | | |  | is not mandatory. | | |  |
|  |  |  |  | | | |  |  | | |  |
| 4 |  | News without logged in reporter | Not found. | | | |  | Not found | | | Pass |
|  |  |  |  | | | |  |  | | |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

Table 6: Test cases for Updating News

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | | | |  |  | | |  |
| **S.** |  | **Test Cases** | **Expected Outcome** | | | |  | **Actual Outcome** | | | **Remarks** |
| **N** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | | | |  |  | | |  |
| 1 |  | News is published | Error! Cannot update published news. | | | |  | Error! Cannot update published news. | | | Pass |
|  |  |  |  | | | |  |  | | |  |
|  |  |  |  | | | |  |  | | |  |
| 2 |  | News with no content | Error. Title is required. | | | |  | Error. News should | | | Pass |
|  |  |  |  |  |  |  |  | have title. | | |  |
|  |  |  |  | | | |  |  | | |  |
| 3 |  | News without images | No Error. Image field | | | |  | No Error. Image field | | | Pass |
|  |  |  | is not mandatory. | | | |  | is not mandatory. | | |  |
|  |  |  |  | | | |  |  | | |  |

* + 1. **Test cases for System Testing**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.N** | **Action** | **Inputs** | **Expected Output** | **Actual Output** | **Test** |
|  |  |  |  |  | **Result** |
| 1 | Launch | https://localhost:44345/ | Application | Application | Pass |
|  | application |  | home page | home page |  |
| 2 | Enter invalid | Email id : | Incorrect | Incorrect | Pass |
|  | Email & any | invalid@xyz.com | username or | username or |  |
|  | Password and | Password: \*\*\*\*\*\* | password | password |  |
|  | hit login button |  |  |  |  |
| 3 | Enter valid | Email id : | The password | The password | Pass |
|  | Email & | valid@xyz.com | that you've | that you've |  |
|  | incorrect | Password: \*\*\*\*\*\* | entered is | entered is |  |
|  | Password and |  | incorrect. [Forgot](https://www.facebook.com/recover/initiate?lwv=120&lwc=1348092) | incorrect. [Forgot](https://www.facebook.com/recover/initiate?lwv=120&lwc=1348092) |  |
|  | hit login button |  | [password?](https://www.facebook.com/recover/initiate?lwv=120&lwc=1348092) | [password?](https://www.facebook.com/recover/initiate?lwv=120&lwc=1348092) |  |

* 1. **Result Analysis**

We finally could make the system as we designed and the data is shown with its test cases. We successfully implemented DFS, logistic regression and matrix factorization algorithms with accuracy greater than 65 percentages. We could meet the objectives of the project.

# Chapter 5: Conclusion and Future Recommendations

* 1. **Conclusion**

It is always better to make a manual system automated. In order to make the process of spreading news fast and effective all news publication sites need to become online and most work should be automated.Hence, it can be concluded that each and every media that feeds news to the people through an online platform should instill efficient platforms where readers can air and interact directly with the organization, for example, the help-platform in the organization’s website.

The use of online feeds will give the readers a one-on-one platform to air their opinions: satisfactions and dissatisfactions, and their views on various pieces of information.

For an efficient growth of the online Media, the readers should be allowed to be involved in the day to day running of the organization. The research also found out that news.com had involved their online readers a lot and this had been a major help to their immense growth in the past decade (Young 2007).

In addition, online media has been efficient, fastest delivery of news. People can get into any topic in quickly, even the people with less eight sites can read by maximizing it according to their convenient. It can be stored and saved in less physical space. printed media demands for separate library. However online media has distinct feature that it can be stored in a single device.

* 1. **Future Recommendations**

There are many things that can be added to this project. The project members have hoped to include following functionalities in future.

* Monitoring users activity.
* Functionalities like letting news creator to add video, broadcast live news can be added.
* Personalized news can be improved further by using ML models.
* Fake news detection system can be added.
* APIs can be integrated both to receive news and broadcast news.
* Development of mobile applications.

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# Appendices

Figure 10: Feature News

Figure 11: Homepage

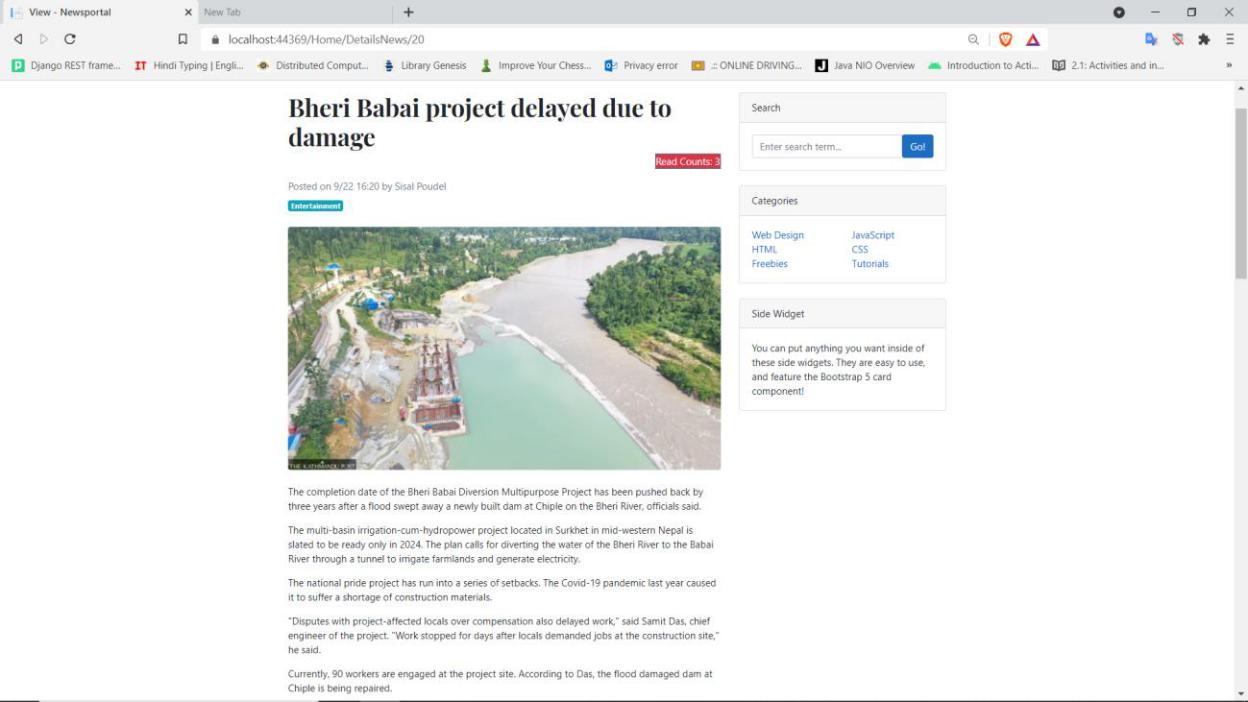


Figure 12: News Details

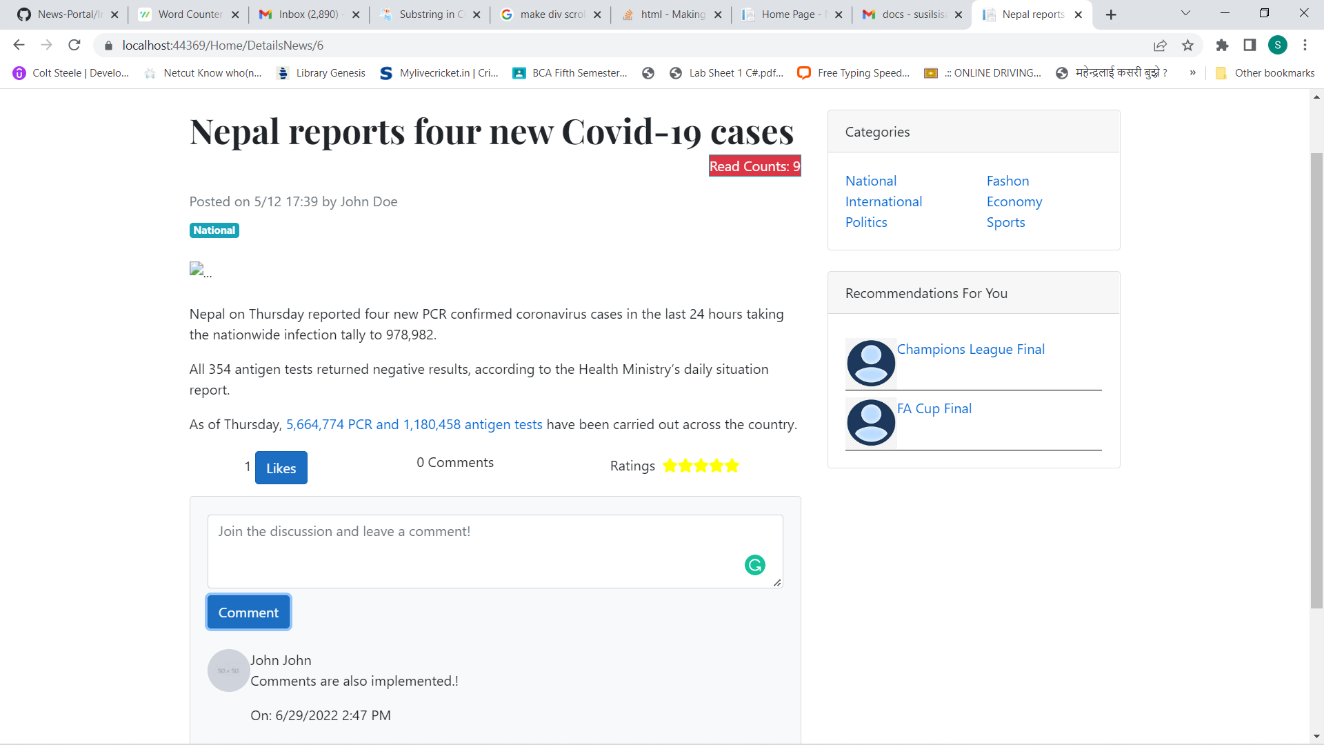


Figure 13: News Details with rating and Comments