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Software Design Document

Course Name: Software Engineering

Course code: CS301

Year: 3nd

Semester: 5th

Session: 2018-19

Discipline: CSE

Project: NU NEWSLETTER

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Software Design Specification

1. Introduction

The Software Design Document is a document to provide documentation which will be used to aid in software development by providing the details for how the software should be built. Within the Software Design Document are narrative and graphical documentation of the software design for the project including use case models, sequence diagrams, collaboration models, object behaviour models, and other supporting requirement information.

1.1 Purpose of this document

This document will define the design of the one runway simulator. It contains specific information about the expected input, output, classes, and functions. The interaction between the classes to meet the desired requirements are outlined in detailed figures at the end of the document.

1.2 Scope of the development project

We describe what features are in the scope of the software and what are not in the scope of the software to be developed.

In Scope:

a. Website for the news taking place in NIIT University.
b. The important events taking place in NIIT University will be published on the website.
c. Placement news of students in NIIT University will be available in the website.

Out of Scope:

a. The news/events taking place in India.

1.3 Definitions, acronyms, and abbreviations

IEEE: Institute of Electrical and Electronics Engineers

SDS: Software Design Specification

1.4 References

1.4.1 R. S. Pressman, Software Engineering: A Practioner's Approach, 5th Ed, McGraw-Hill, 2001.

1.4.2 IEEE SDS template

1.5 Overview of document

This SDS is divided into seven sections with various sub-sections. The sections of the Software Design Document are:

1. **Introduction**: describes about the document, purpose, scope of development, project definitions, and abbreviations used in the document.
2. **Conceptual Architecture/Architecture Diagram:** describes the overview of components, modules, structure and relationships and user interface issues.
3. **Logical Architecture:** describes Logical Architecture Description and Components.
4. **Execution Architecture:** defines the runtime environment, processes, deployment view.
5. **Design Decisions and Trade-offs:** describes the decisions taken along with the reason as to why they were chosen over other alternatives.
6. **Pseudocode for components:** describes pseudocode, as the name indicates.
7. **Appendices:** describes subsidiary matter if any.

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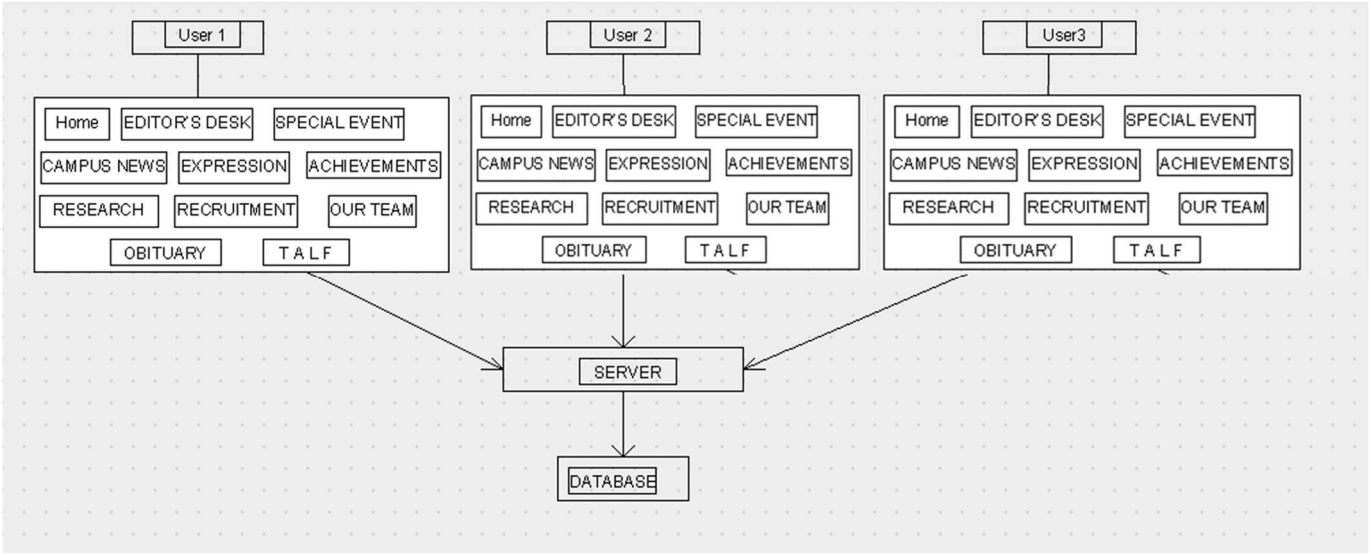
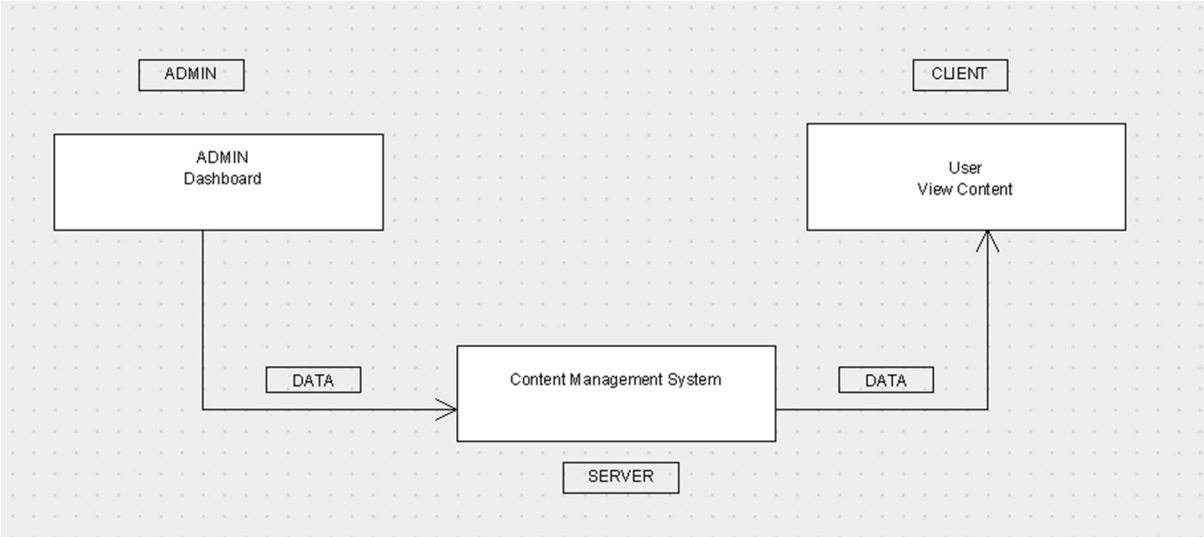
2.Conceptual Architecture/Architecture Diagram

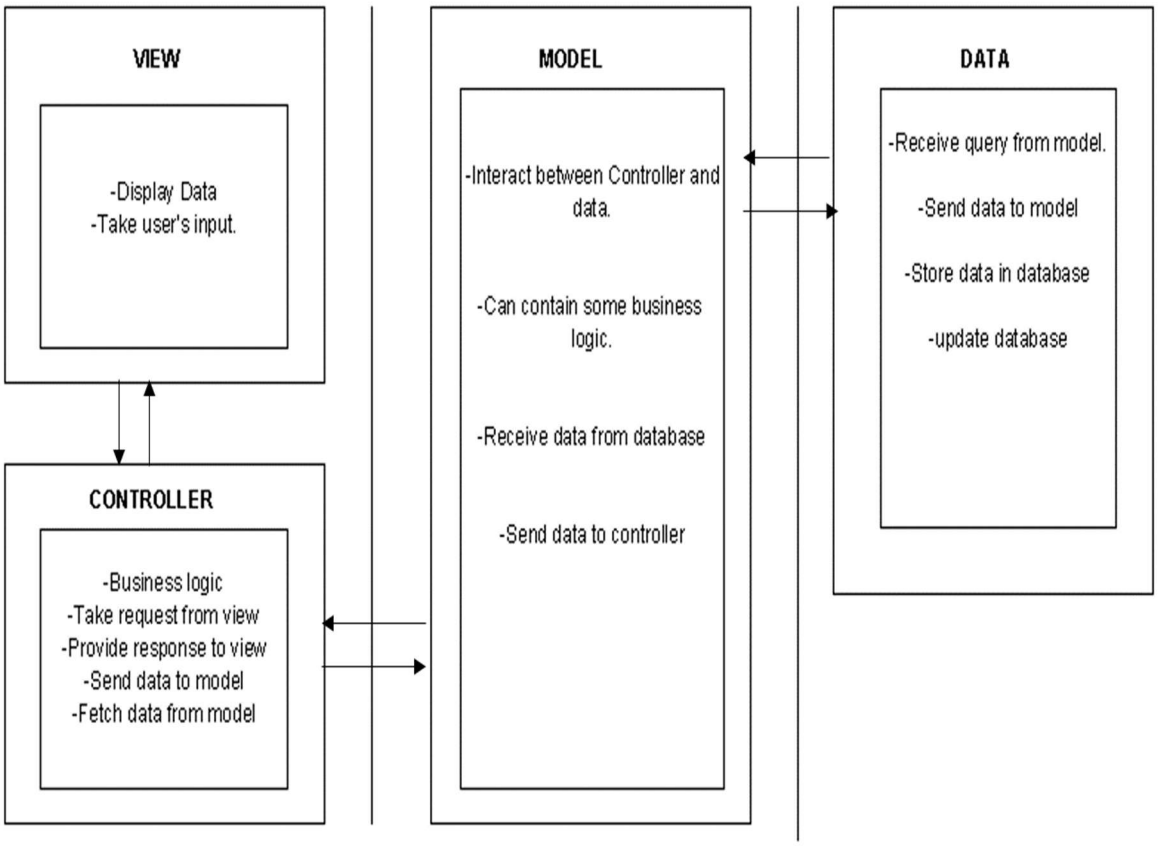
Architecture Diagram 1:



Architecture Diagram 2:

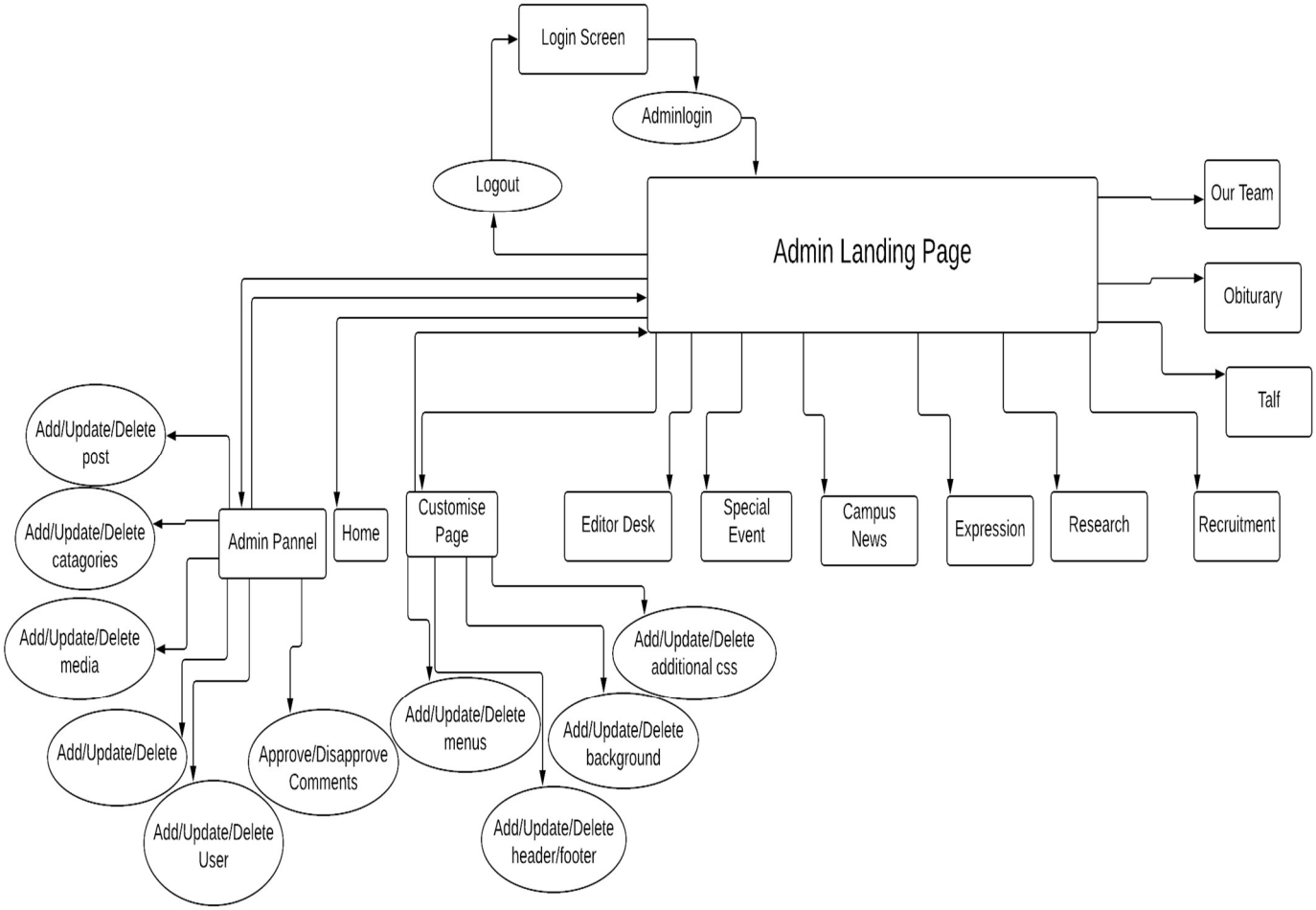


2.1 Overview of components



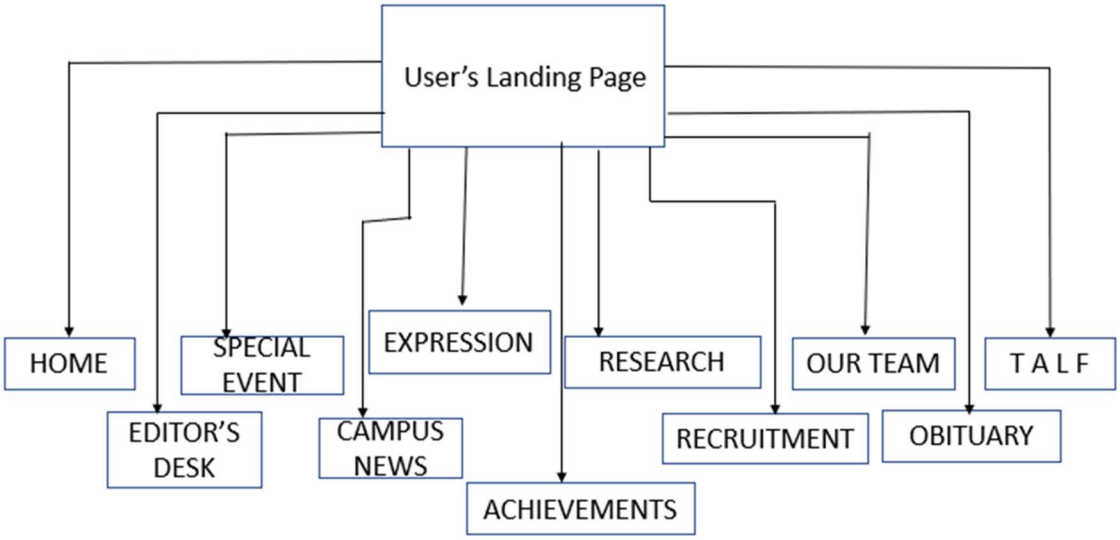
2.2 Structure and relationships

2.2.1 Admin's Side



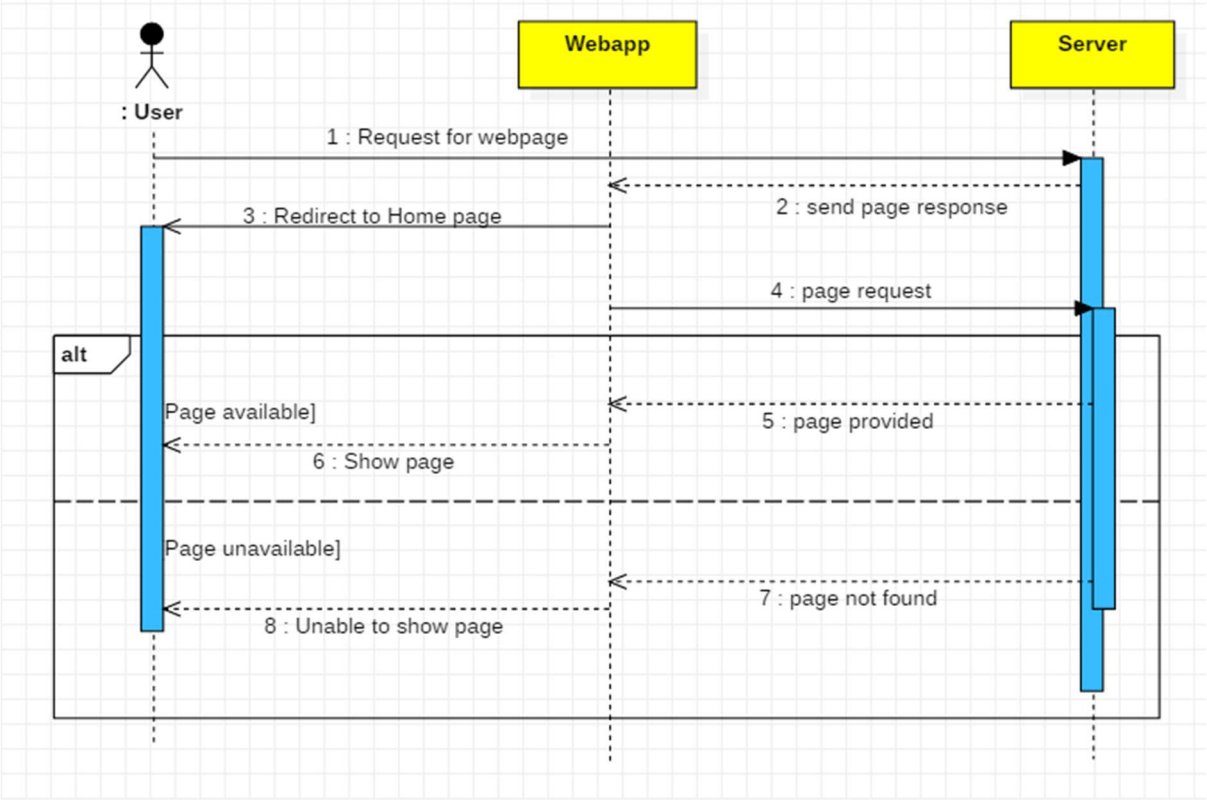
Note: User can shift between varies tab's directly.

2.2.2 User's Side

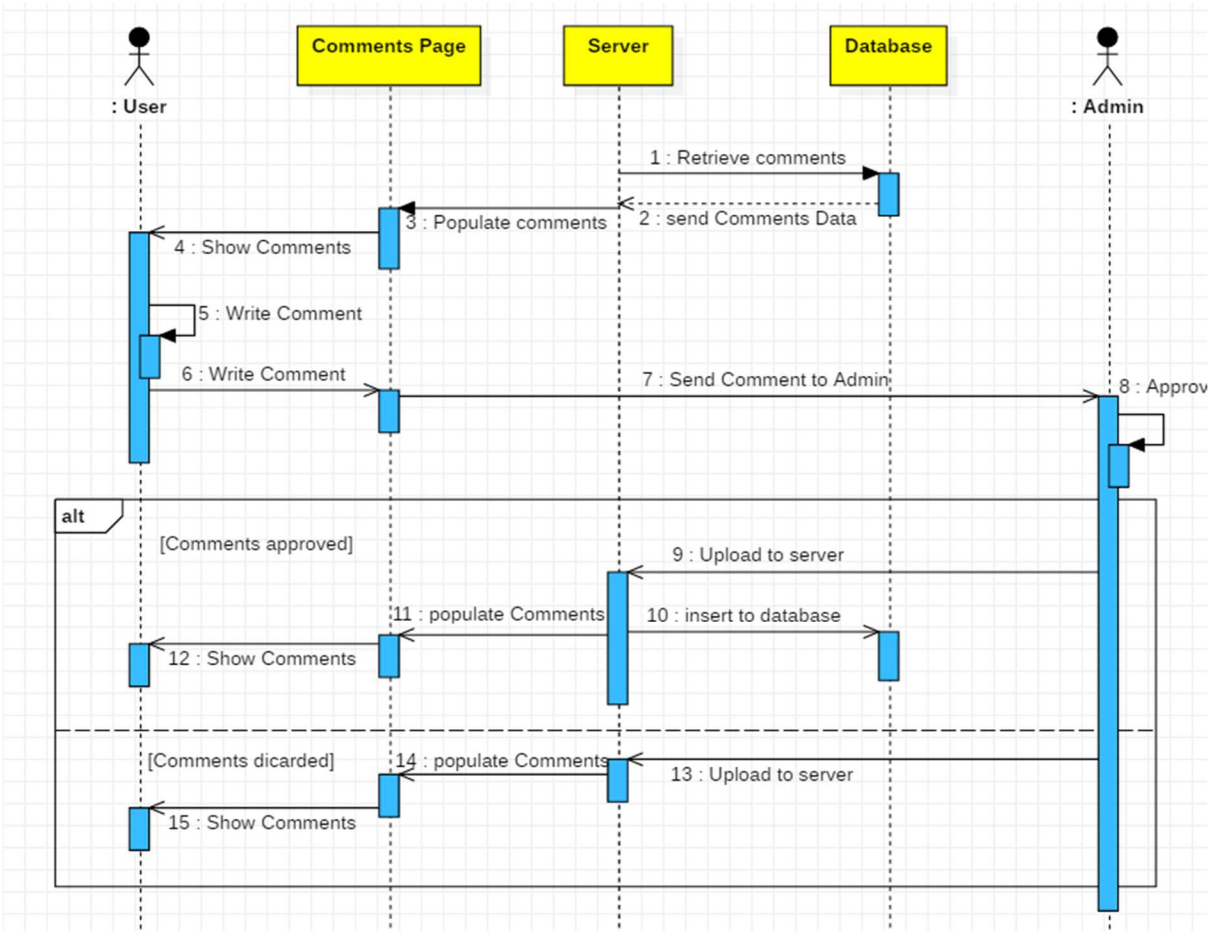


3.Sequence Diagrams:

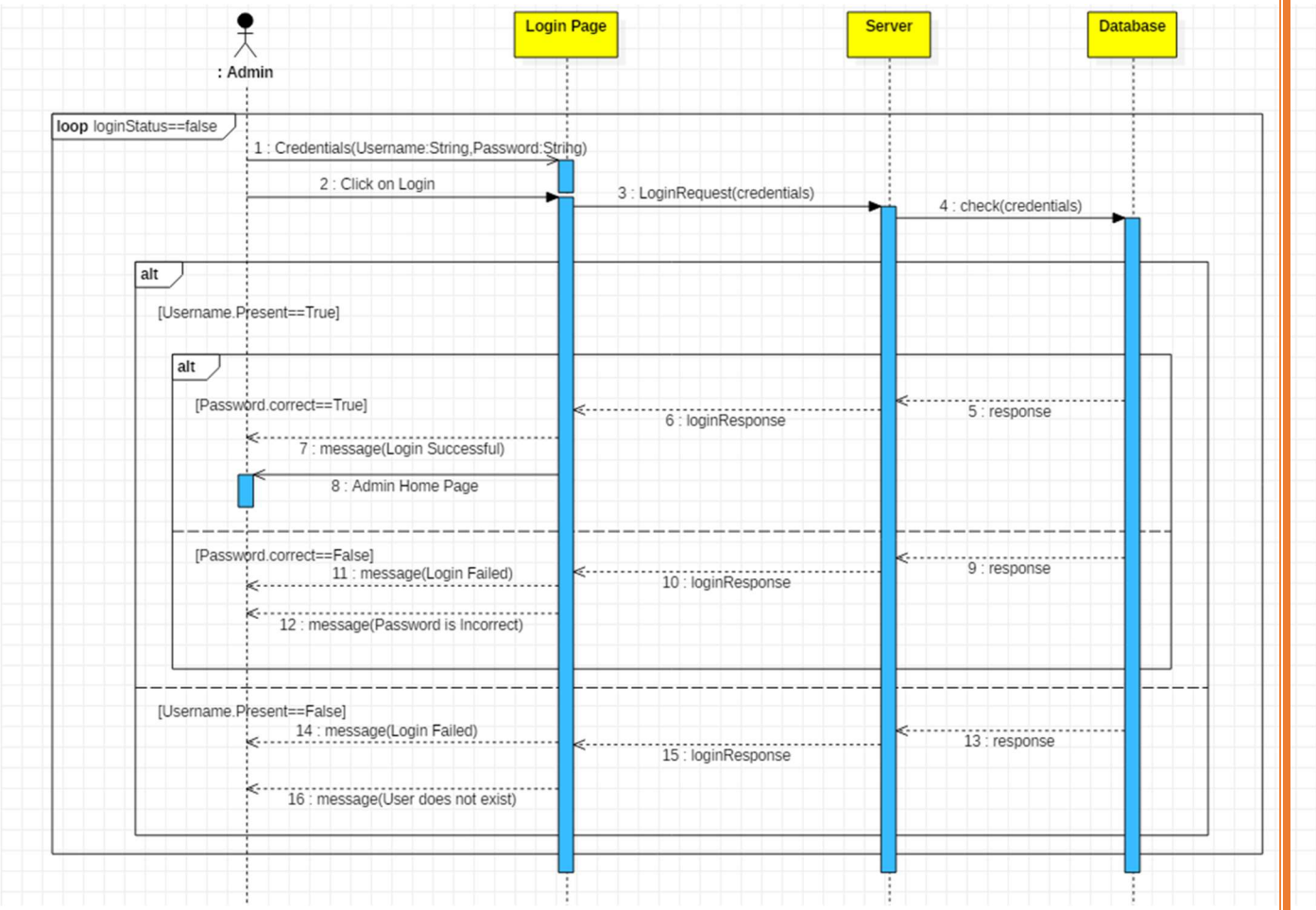
3.1 Access website:



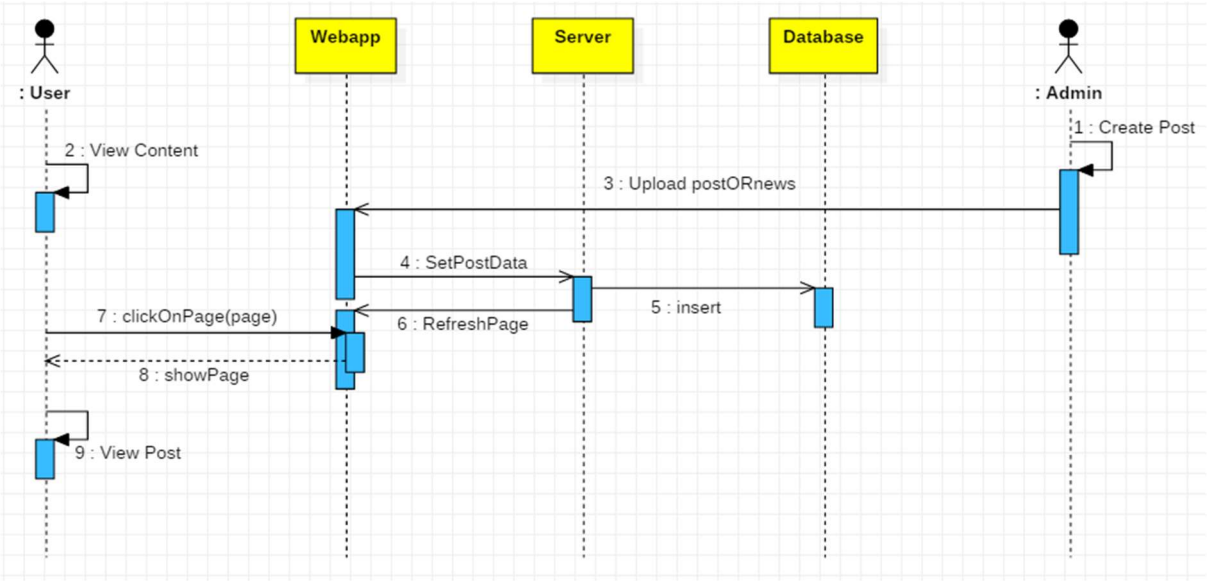
3.2 Comments validation:



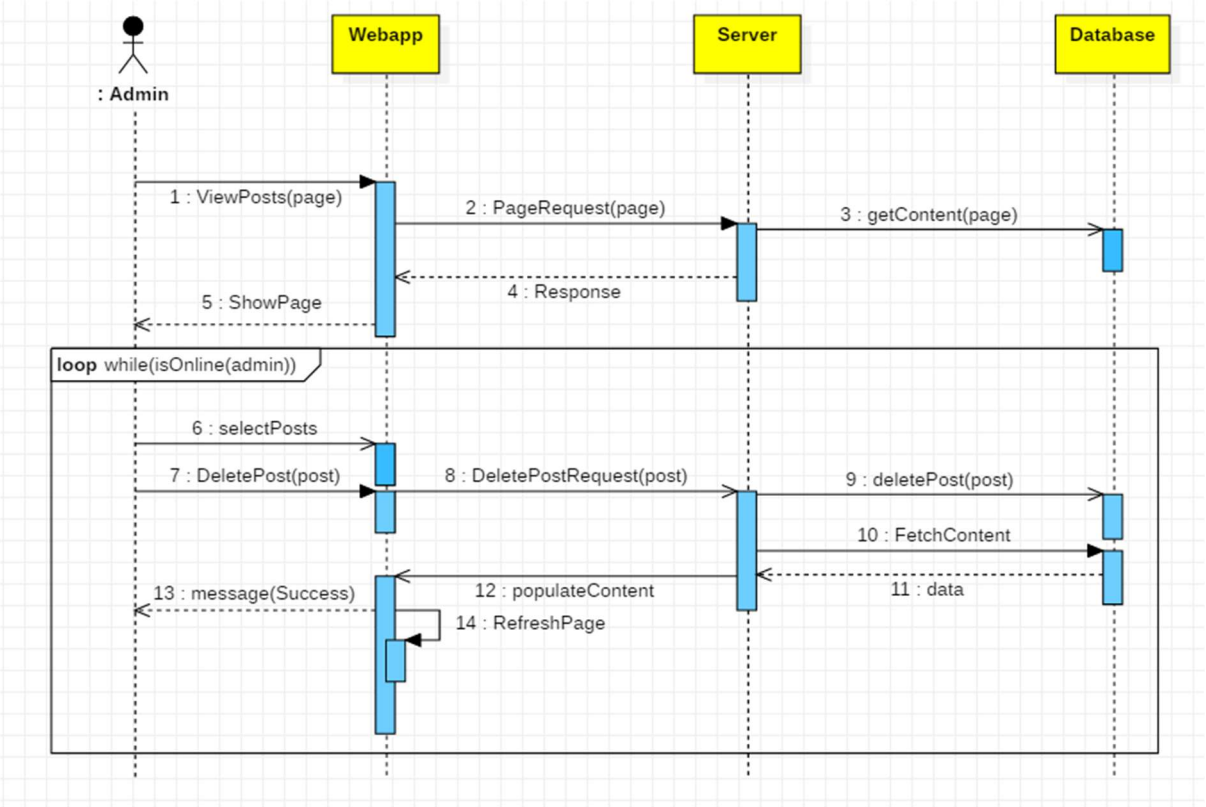
3.3 Admin login:



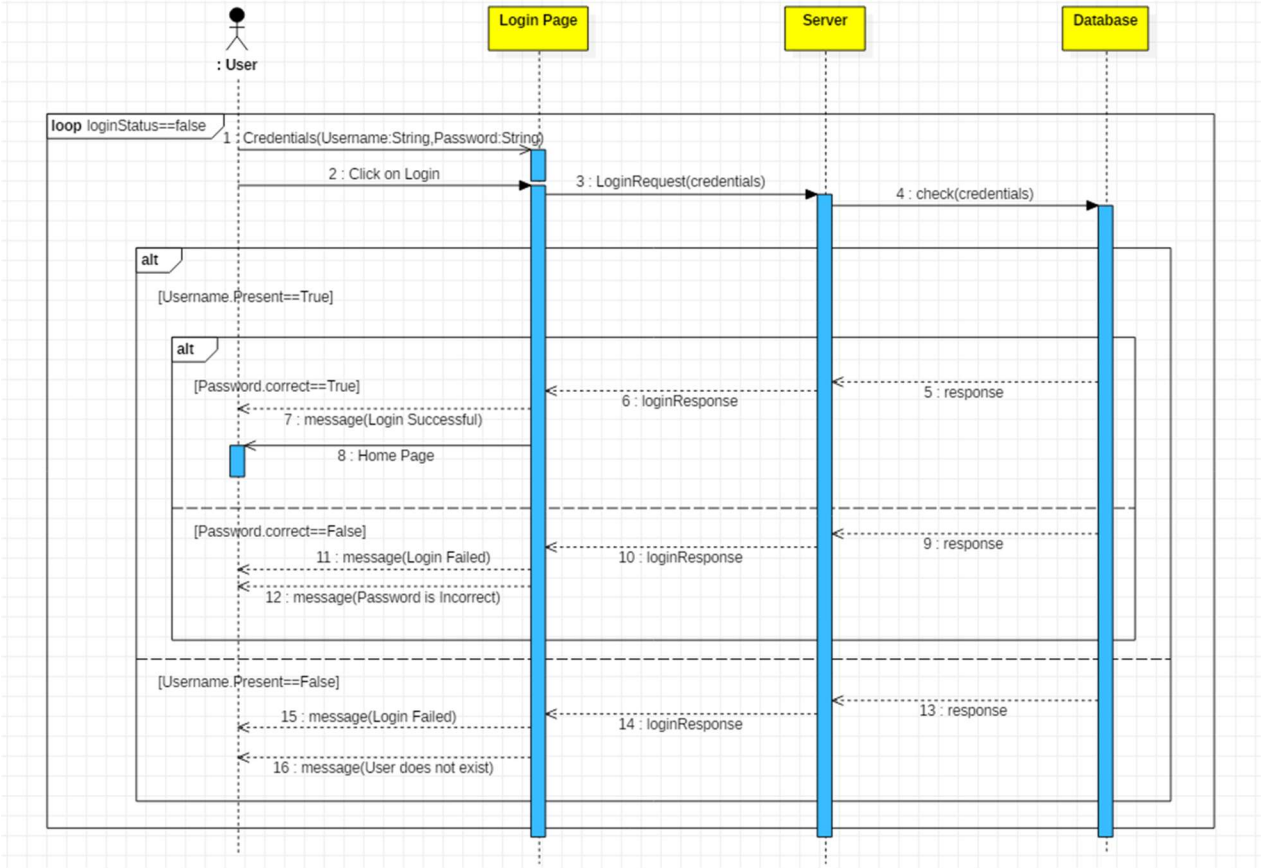
3.4 Create Post:



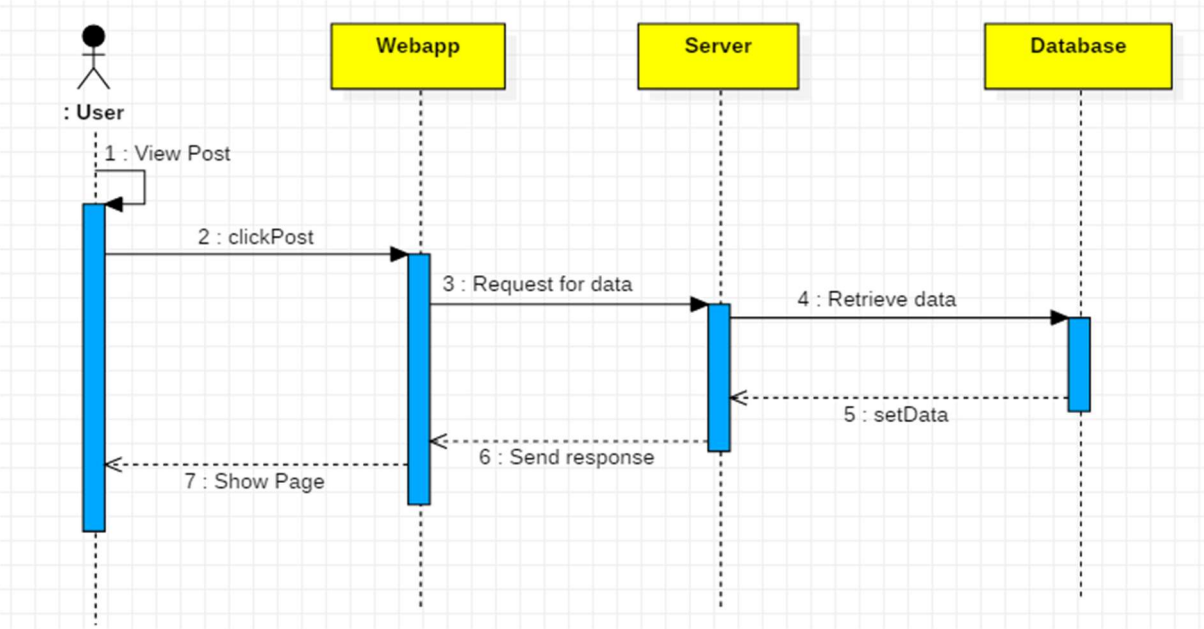
3.5 Delete post:



3.6 User Login:

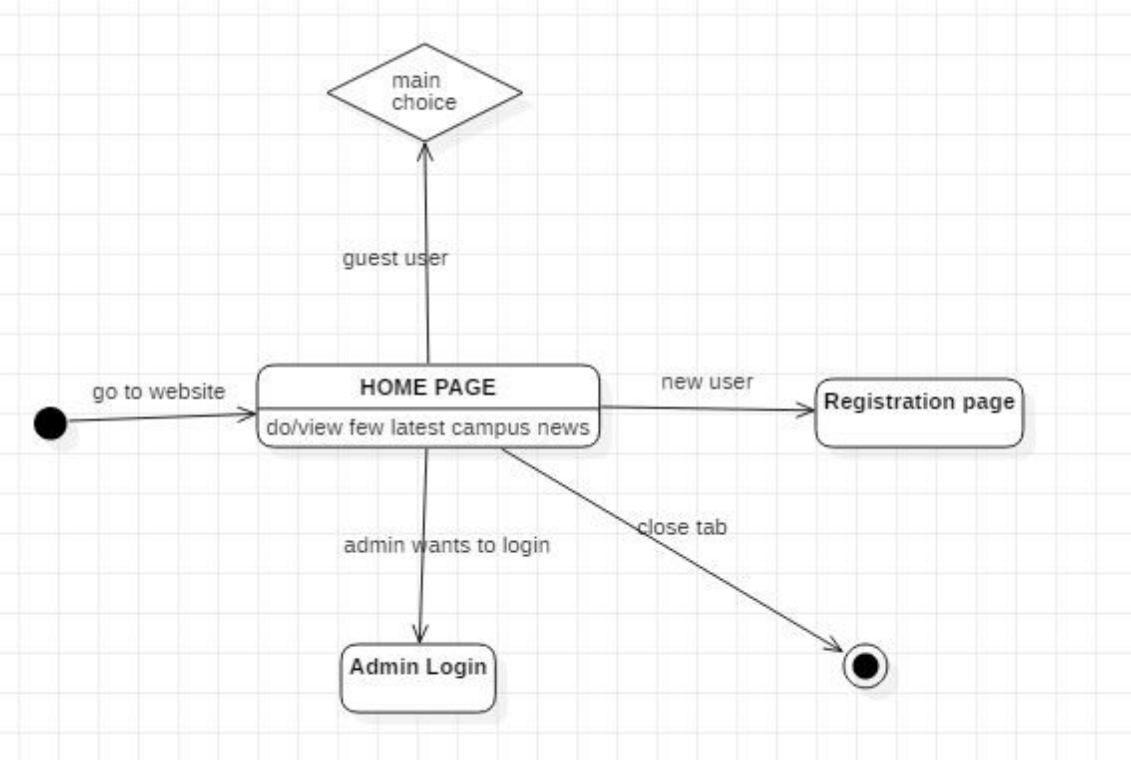


3.7 View Posts:

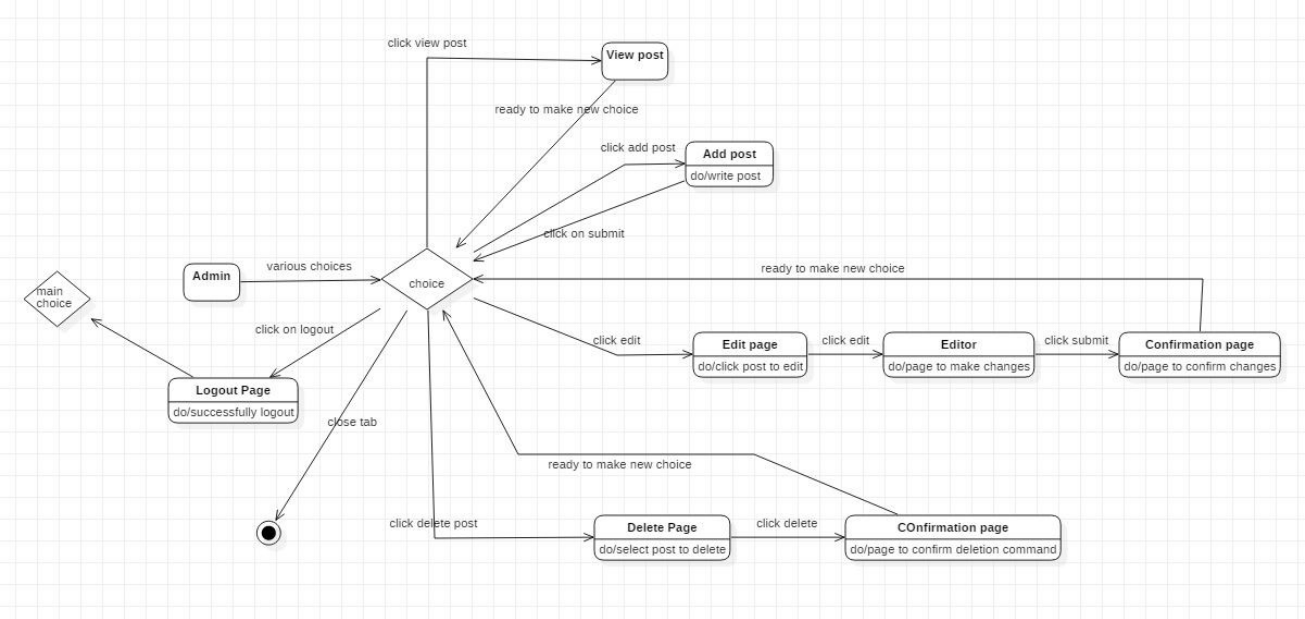


4. State Diagram: Overview

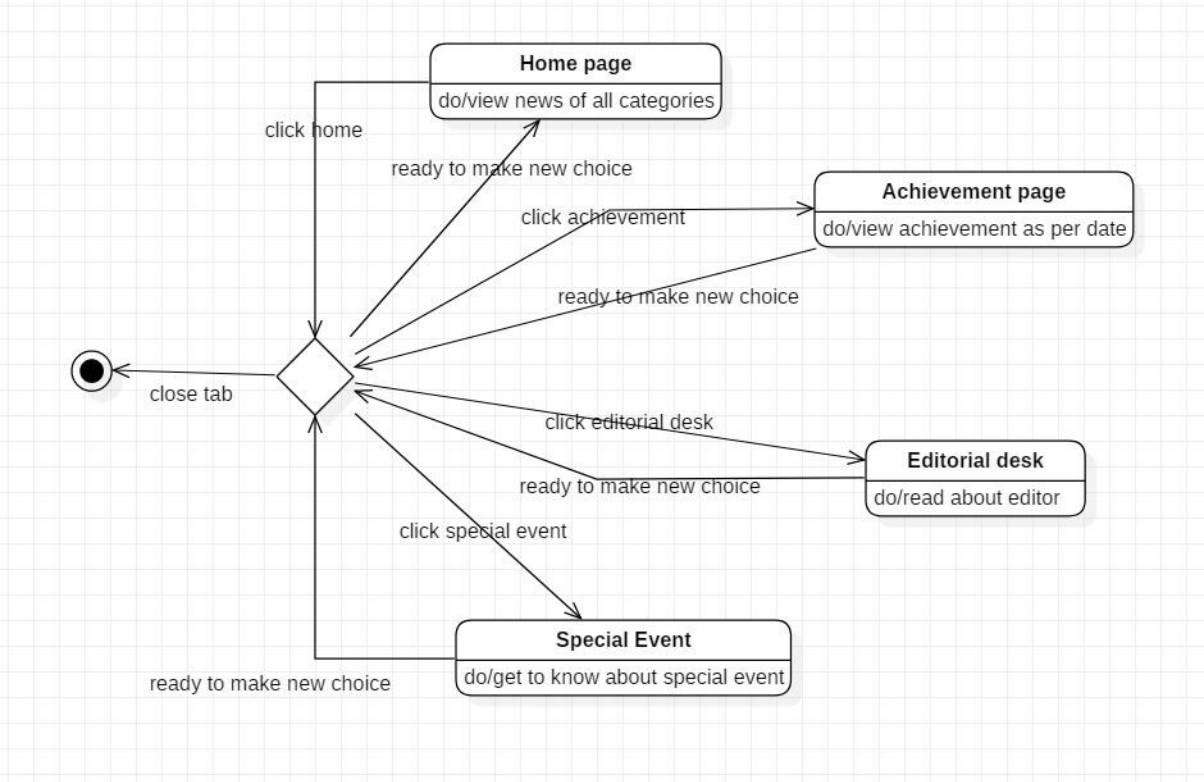
State Diagram: Home

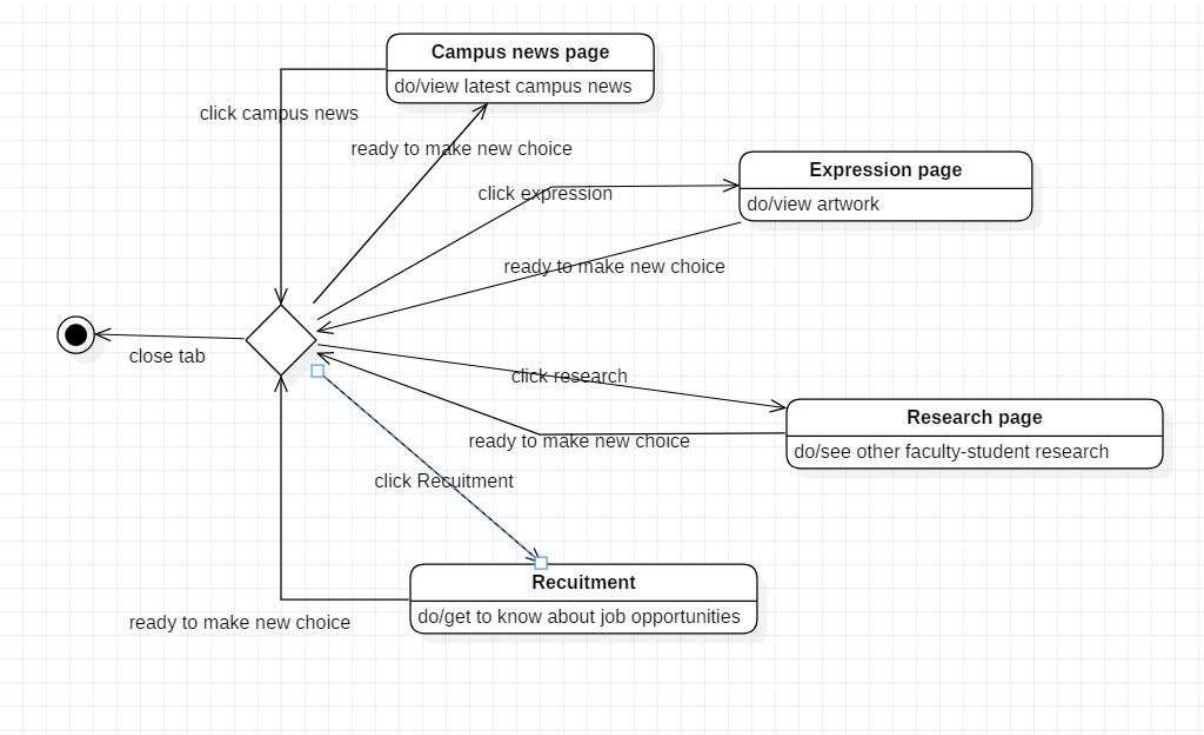


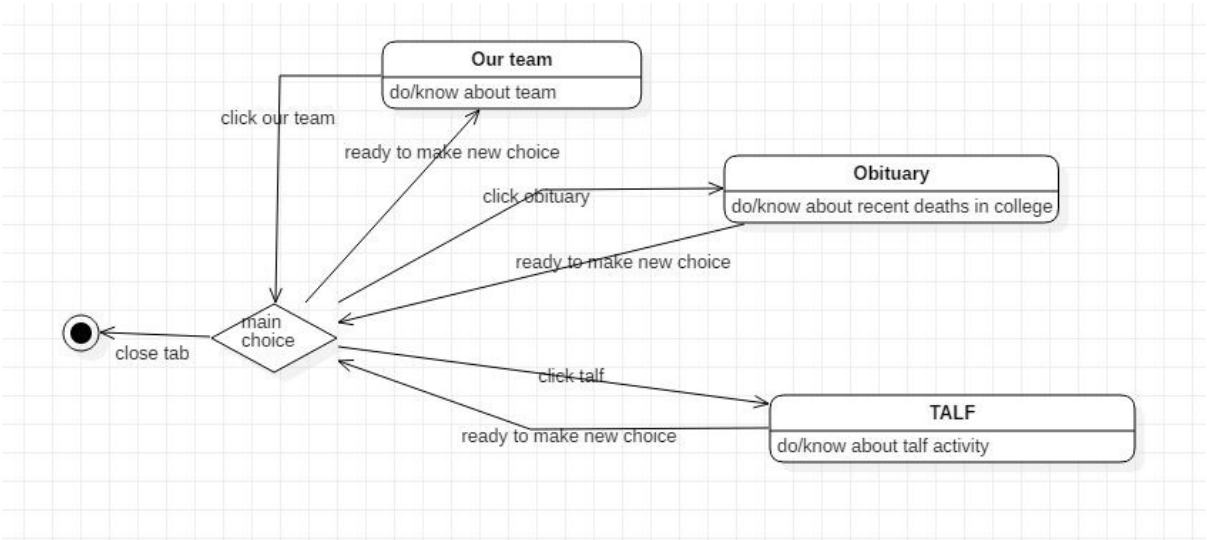
State Diagram: Admin



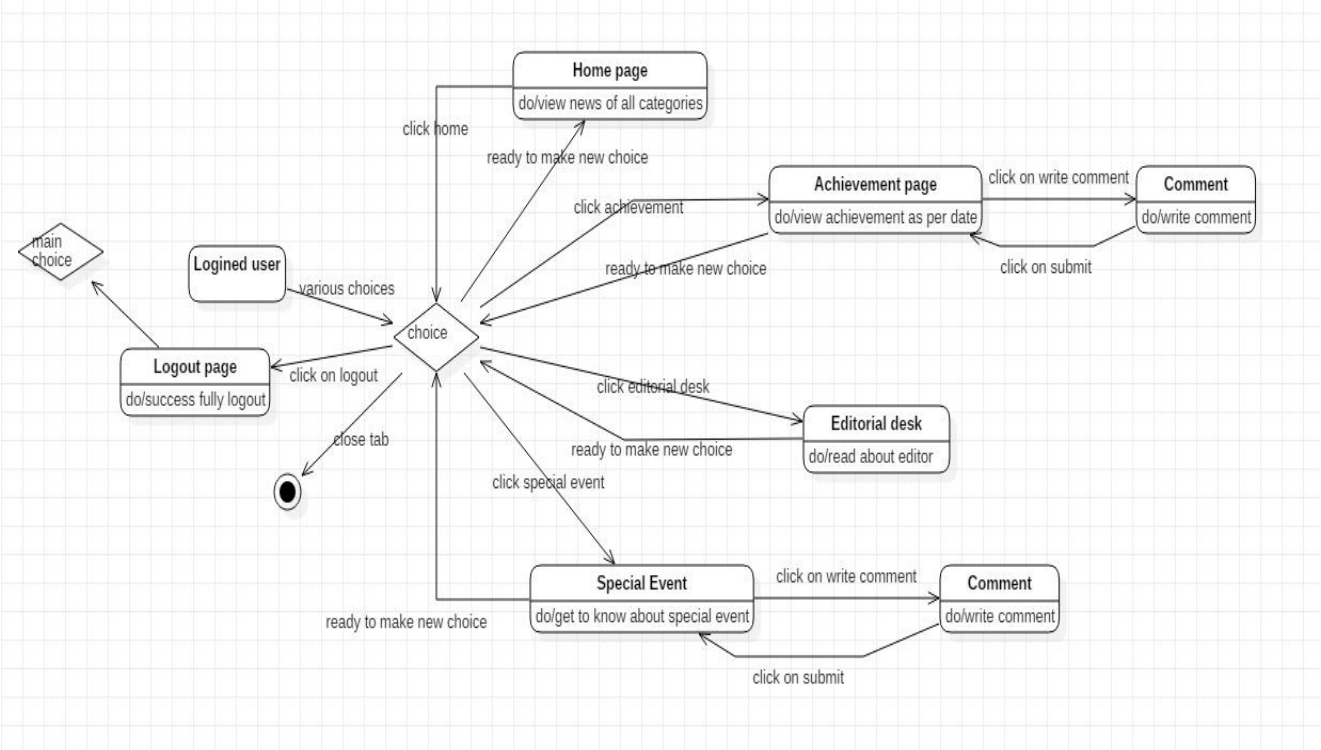
State Diagram: Guest User

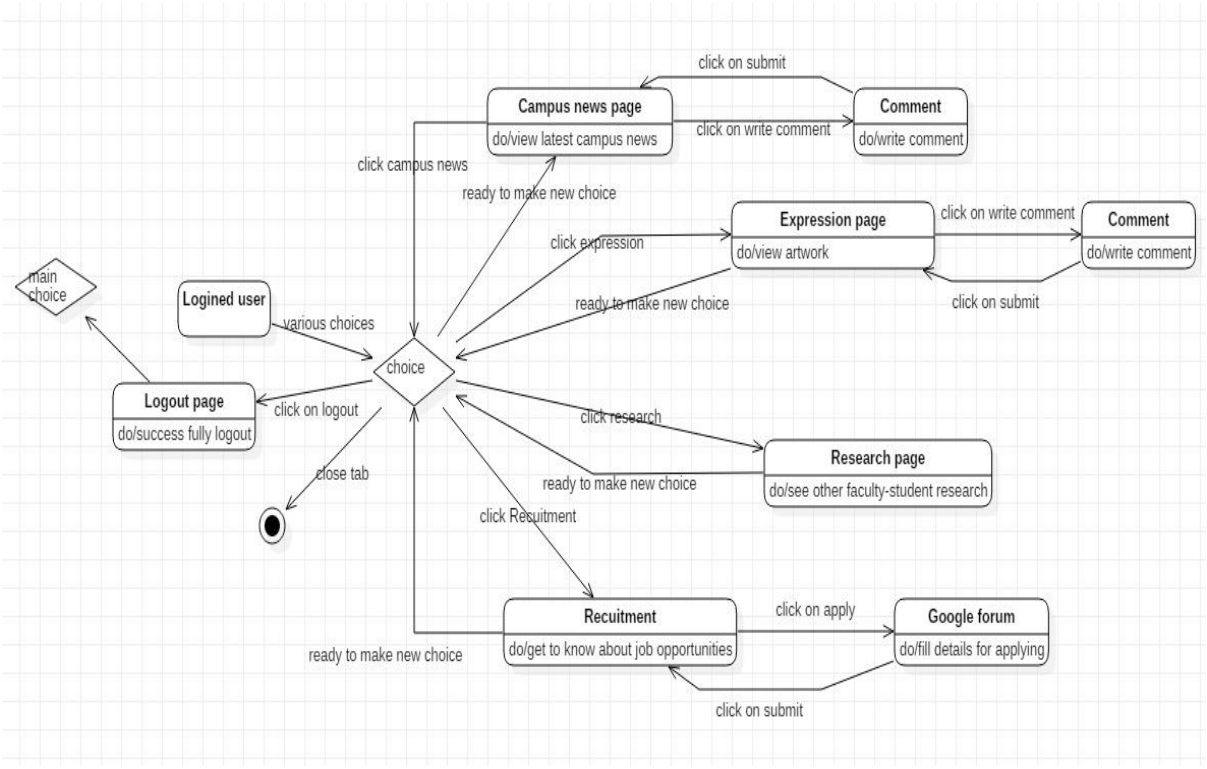


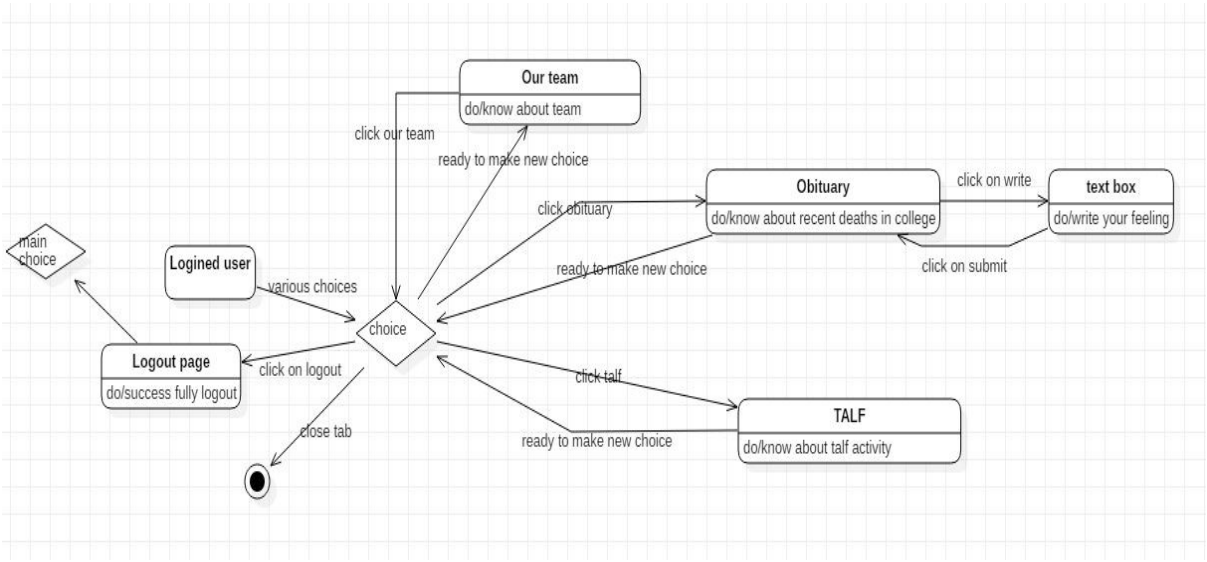




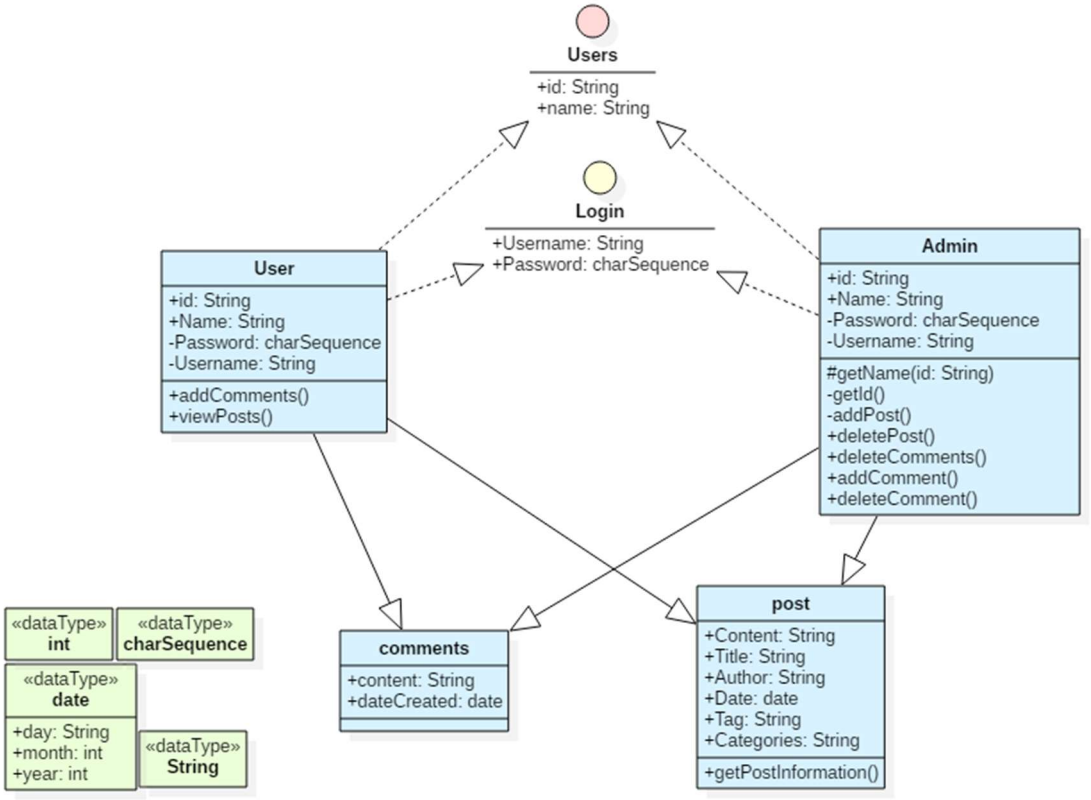
State Diagram: Registered User




click on submit
Campus news page
do/view latest campus news
click on write comment
Comment
do/write comment
click campus news
ready to make new choice
Expression page
do/view artwork
click on write comment
Comment
do/write comment
click expression
ready to make new choice
click on submit
main choice
Logined user
various choices
choice
Logout page
do/success fully logout
click on logout
close tab
click research
Research page
do/see other faculty-student research
ready to make new choice
click Resuitment
Recuitment
do/get to know about job opportunities
click on apply
Google forum
do/fill details for applying
ready to make new choice
click on submit


Our team
do/know about team
click our team
ready to make new choice
Obituary
do/know about recent deaths in college
click on write
text box
do/write your feeling
click obituary
main choice
Logined user
various choices
ready to make new choice
click on submit
choice
Logout page
do/success fully logout
click on logout
click talf
close tab
TALF
do/know about talf activity
ready to make new choice

Class Diagram:



5. Logical Architecture Description

The Architecture is based on Client – Server communication where the data is stored in MySQL Database and the server retrieves the data as and when the client requires it to.

6. Sequence Diagrams

6.1 Access website

The User first enter the domain URL and hit enter to send request to access the page to the server. After the server has received the request it will redirect the user to the Home page of the website.

6.2 Comment Validation

User can go through the news articles and can put their comments. The comments then will be evaluated by the admin. After evaluation the comments will be published.

6.3 Create posts

Admin can create posts after login and upload the content to the server after which the content is published. The post may contain news articles, media files or images etc.

6.4 Delete Posts

The admin can delete posts or make necessary updates if required. The updated data gets fetched by the server and is then published.

6.5 User Login

The User fill the credentials for logging in to the website. By logging in the user can put their comments as the comment require a username and valid authentication.

6.6 View Post

Once the user is redirected to the home page, user can view the page of choice.

6.7 Admin Login

The Admin fill the credentials to log in to the website. After logging in, the admin is redirected to the admin home page and can Create, Read, Update, Delete operations on the desired posts and comments.

7.States Diagram:

7.1 Home

The User first go to the website either by logging in (Registered user) or without logging in (Guest user). Admin also require an authorized login to access the features. Once the user gets to the home page, user can read the posts and news.

7.2 Admin

The admin must log in first to access the functionalities. The admin gets the right to add and delete posts, read, validate, modify and delete comments.

7.3 Guest User

The user who only wants to view the content of the posts falls in this category. The guest user does not have the right to comment on the posts.

7.4 Registered User

The registered user can login to view the content and write comments. User can register to the website by clicking on the signup button and filling the required fields of the form.

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