Content Management System

A project submitted to

UKA TARSADIA UNIVERSITY

in partial fulfillment of the requirements for the degree of

Master of Science

in

Information Technology

for

5 Years Integrated M.Sc.(IT)

By

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CERTIFICATE

This is to certify that **Drashti H. Pancholi (201806100110024) & Yash M. Dhameliya (201806100110110)** has submitted project entitled "**Content Management System**" as the partial fulfillment for the award of the degree of Master of Science in Information Technology for 5 Years Integrated M.Sc.(IT) in 2021 – 2022.

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Place:

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1. Introduction

1.1. Problem Definition

An increasing number of organizations have web sites. The trend is to disseminate responsibility of managing web content for the web site to the people who generate it rather than webmaster. At the same time, this scenario creates a situation in which people who are uncomfortable with working on web design are forced to complete tasks for a web site. So we make content management system is for creating, managing, and optimizing people digital experience. More specifically, a CMS is a software application that allows users to collaborate in the creation, editing, and production of digital content: web pages, blog posts, etc.

1.2. Initial Requirement Document

Title of the project	Content Management System
Stakeholders involved in capturing requirement	Admin, Blogger
Techniques used for requirement capturing	Brain Storming, Interface analysis
Name of the person along with a designation	Yash Dhameliya (Myself), Drashti Pancholi (Myself)
Date	18th January 2022
Users of the system	Admin, Blogger
Version	1.0
Consolidated list of initial requirements	
Req #1	All bloggers shall be able to do registration.
Req #2	All bloggers shall be able to do login.

Req #3	All bloggers shall be able to do forgot password.
Req #4	Admin shall be able to do login.
Req #5	All bloggers can be able to add their blog post.
Req #6	All bloggers can be able update their blog post.
Req #7	All bloggers can be able delete their blog post.
Req #8	All bloggers can view the all blogs.
Req #9	All bloggers can be able to add their about us, contact us and privacy policy pages.
Req #10	All bloggers can be able to update their about us, contact us and privacy policy pages.
Req #11	All bloggers can be able to delete their about us, contact us and privacy policy pages.
Req #12	All bloggers can view the about us, contact us and privacy policy pages.
Req #13	All bloggers can do comments on others blog post.
Req #14	All bloggers can be able delete their blog post comments.
Req #15	Admin can be able to show all bloggers details.
Req #16	Admin manage blog's categories. (update, insert, delete)
Req #17	Admin can be able to show all blogs.
Req #18	Admin and All bloggers can be able to do logout.

1.3. Project Objective

Content Management System helps different types of bloggers to create of their blog site. It also having the ability to update, change or delete any images, text, title, or categories. For bloggers the system will make it easier to keep number of content categories wise and reduce their overall cost.

1.4.   Project Scope

- This system can only use to manage content in the one default template.

- This system allow only one author in one particular user account.

- Provide category facility to show category wise blog post.

- This system don't have any widgets.

Chapter: 2

Overall Description

2.1 Product Perspective/ Environment Description

2.1.1. Hardware Interface/ Hardware Specification

- **Customer side**

  - Screen resolution of at least Minimum 640 * 480 pixels to Maximum 1920 * 1080.
  - Minimum 4GB RAM require.
  - Minimum 5GB Hard Disk required.
  - x64-based processor required.

- **Developer side**

  - Screen resolution of 1920 * 1080.
  - Minimum 4GB RAM require.
  - Minimum 5GB Hard Disk required.
  - x64-based processor required.

2.1.2. Software Interface/ Software Specification

- **Customer side**

  - Windows OS 10 or Higher
  - Any Web Browser

- **Developer side**

  - Windows OS 10 or Higher
  - Development Tool: Microsoft Visual Studio 2019
  - Frontend: React js with frame work (material-ui)
  - Backend: Node js

- Database: Mongo DB
- Any Web Browser

Chapter: 3

System Specific Requirements

3.1 Functional Requirement

- **Registration and Login**

RN	Description	Comments

FR 1	The bloggers shall be able to registration.
	    o The bloggers needs to add the following details:
	        ▪ Username
	        ▪ E-mail address
	        ▪ Password
		Registration form

FR 2	The bloggers shall get a system-generated email for email verification.	System-generated email
FR 5	The system shall allow the admin and bloggers to log into their account by accepting the correct username or emailid and password.	Login form

- **Forgot Password**

RN	Description	Comments

FR 1	The bloggers shall be able to Forgot password.
	    o The bloggers needs to add the following details:
	        ▪ Registered E-mail address
		Forgot form

FR 2	The bloggers shall get a system-generated email for Forgot password.	System-generated email

FR 3	The bloggers shall be able to add new password.
	    o The bloggers needs to add the following details:
	        ▪ New Password
	        ▪ Confirm Password
		Add new password

- **Manage bloggers**

RN	Description	Comments
FR 1	The admin shall be able to view bloggers details.	View blogger.

- **Manage blog categories**

RN	Description	Comments

FR 1	The admin shall be able to add categories.
	  o The admin needs to add the following details:
	    ▪ Category id
	    ▪ Category name
		Add category form.

FR 2	The admin shall be able to update category details.	Update category form.
FR 3	The admin shall be able to delete the category.	Delete categories.
FR 4	The admin shall be able to view category.	View categories.

- **Manage blog post**

RN	Description	Comments

FR 1	The blogger shall be able to add their post.
	  o The blogger needs to add the following details:
	    ▪ Post id
	    ▪ Post title
	    ▪ Post Image
	    ▪ Post Content
	    ▪ Post URL
		Add post form.

FR 2	The blogger shall be able to update post details.	Update post form.
FR 3	The blogger shall be able to delete the post.	Delete post.
FR 4	The blogger shall be able to view post.	View post.

- **Manage comments**

RN	Description	Comments

FR 1	The blogger shall be able to add comments on all blog post.
	  o The blogger needs to add the following details:
	    ▪ Comment Details
		Add comments.

FR 2	The blogger shall be able to update their comments.	Update comments.
FR 3	The blogger shall be able to delete their comments.	Delete comments.
FR 4	The blogger shall be able to view all comments.	View comments.

- **Manage about us**

RN	Description	Comments

FR 1	The blogger shall be able to add their about us page.
	 o The blogger needs to add the following details:
	   ▪ About Us Id
	   ▪ Site name
	   ▪ Author name
	   ▪ Author image
	   ▪ Description
		Add about us form.

FR 2	The blogger shall be able to update about us details.	Update about us form.
FR 3	The blogger shall be able to delete the about us.	Delete about us.
FR 4	The blogger shall be able to view about us.	View about us.

- **Manage contact us**

RN	Description	Comments

FR 1	The blogger shall be able to add their contact us page.
	 o The blogger needs to add the following details:
	   ▪ Site name
	   ▪ Email id
	   ▪ Website Url
	   ▪ Social media links
		Add contact us form.

FR 2	The blogger shall be able to update contact us details.	Update contact us form.
FR 3	The blogger shall be able to delete the contact us.	Delete contact us.
FR 4	The blogger shall be able to view contact us.	View contact us.

- **Manage privacy policy**

RN	Description	Comments

FR 1	The blogger shall be able to add their privacy policy page.
	 o The blogger needs to add the following details:
	   ▪ Site name
	   ▪ Site Url
	   ▪ Cookies
	   ▪ Google ads
	   ▪ Third party ads
		Add privacy policy form.

FR 2	The blogger shall be able to update privacy policy details.	Update privacy policy form.
FR 3	The blogger shall be able to delete the privacy policy.	Delete privacy policy.
FR 4	The blogger shall be able to view privacy policy.	View privacy policy.

3.2   Non-functional Requirement

3.2.1   Usability:

The System will be user-friendly and easy to operate, and the functions will be easily understandable.

3.2.2   Security:
The System will be password protected. Users will have to enter the correct Email ID and password to access the system.

3.2.3   Responsive:
The system will be designed to work on any modern digital device with browser compatibility of its display size, resolution, orientation and aspect ratio.

Chapter: 4

System Design

4.1 Database Design

4.1.1 Database Schema

- **tblusers** (userid[PK], username, emailid, password, usertype)
  - FD: userId -> Username, Email Id, Password, Usertype

- **tblcategoies** (categoryid[PK], categoryname)
  - FD: categoryId-> Categoryname

- **tblpost** (postid[PK], title, image, content, url)
  - FD: postId -> Title, Image, Content, Url

- **tblcomments** (commentid[PK], title[FK], username[FK], commentdetail)
  - FD: commentid -> Title, Username, Commentdetail

- **tblaboutus** (aboutusid[PK], sitename, authorname, authorimage, description)
  - FD: aboutusId -> Sitename, Authorname, Authorimage, Description

- **tblcontactus** (contactusid[PK], sitename, emailid, websiteurl, socialmedialinks)
  - FD: contactusid -> Sitename, Emailid, Websiteurl, Social media links

- **Tblprivacypolicy** (privacypolicyid[PK], sitename, siteurl, cookies, googleads, thirdpartyads)
  - FD: Privacypolicyid -> Sitename, Siteurl, Cookies, Googleads, Thirdpartyads

4.2   Data Dictionary

tblusers

Fields	Data Type	Constraint	Description
userid	int	Primary Key	It contains unique id for all users.
username	Varchar(10)	Not Null	It contains the username.
emailid	varchar(150)	Not Null, unique	It contains the email id of users.
password	varchar(10)	Not Null	It contains a password for users for authentication.
usertype	varchar(10)	Not Null	It contains user type for user.

tblcategoies

Fields	Data Type	Constraint	Description
categoryid	int	Primary Key	It contains unique id for category.
categoryname	varchar(15)	Not Null	It contains the name of category.

tblpost

Fields	Data Type	Constraint	Description
postid	int	Primary Key	It contains unique id for post.
title	varchar(15)	Not Null	It contains the title of post.
image	image	Not Null	It contains the image of post.
content	varchar(500)	Not null	It contains the content of the post.
url	string	Not null	It contains the url of the post.

tblcomments

Fields	Data Type	Constraint	Description
commentid	int	Primary Key	It contains unique id for comments.
title	varchar(15)	Foreign Key	It contains the title of post.
username	Varchar(10)	Foreign Key	It contains the username.
commentdetail	varchar(150)	Not null	It contains the content of the comment.

tblaboutus

Fields	Data Type	Constraint	Description
aboutusid	int	Primary Key	It contains unique id for about us.
sitename	varchar(15)	Not Null	It contains the site name of about us.
authorname	varchar(15)	Not Null	It contains the author name of about us.
authorimage	image	Not Null	It contains the author image of about us.
description	varchar(500)	Not Null	It contains the description of about us.

tblcontactus

Fields	Data Type	Constraint	Description
contactusid	int	Primary Key	It contains unique id for contact us.
sitename	varchar(15)	Not Null	It contains the site name of contact us.
emailid	varchar(15)	Not Null	It contains the email id of contact us.
websiteurl	string	Not Null	It contains the web site url of about us.
socialmedialinks	varchar(20)	Not Null	It contains the social

			media links.

tblprivacypolicy

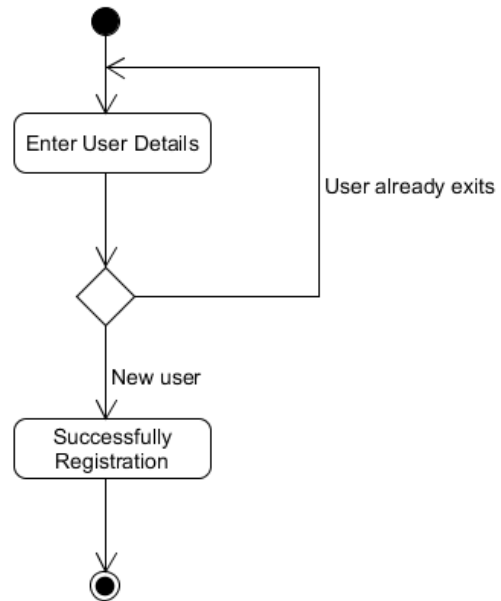| Fields	Data Type	Constraint	Description
privacypolicyid	int	Primary Key	It contains unique id for privacy policy.
sitename	varchar(15)	Not Null	It contains the site name of privacy policy.
siteurl	string	Not Null	It contains the email id of privacy policy.
cookies	string	Not Null	It contains the cookies of privacy policy.
googleads	string	Not Null	It contains the google ads of privacy policy.
thirdpartyads	string	Not Null	It contains the third party ads of privacy policy.

Chapter: 5

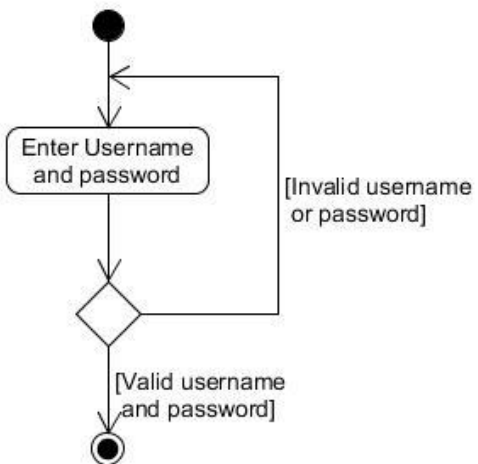# System Analysis

5.1 Use Case Diagram
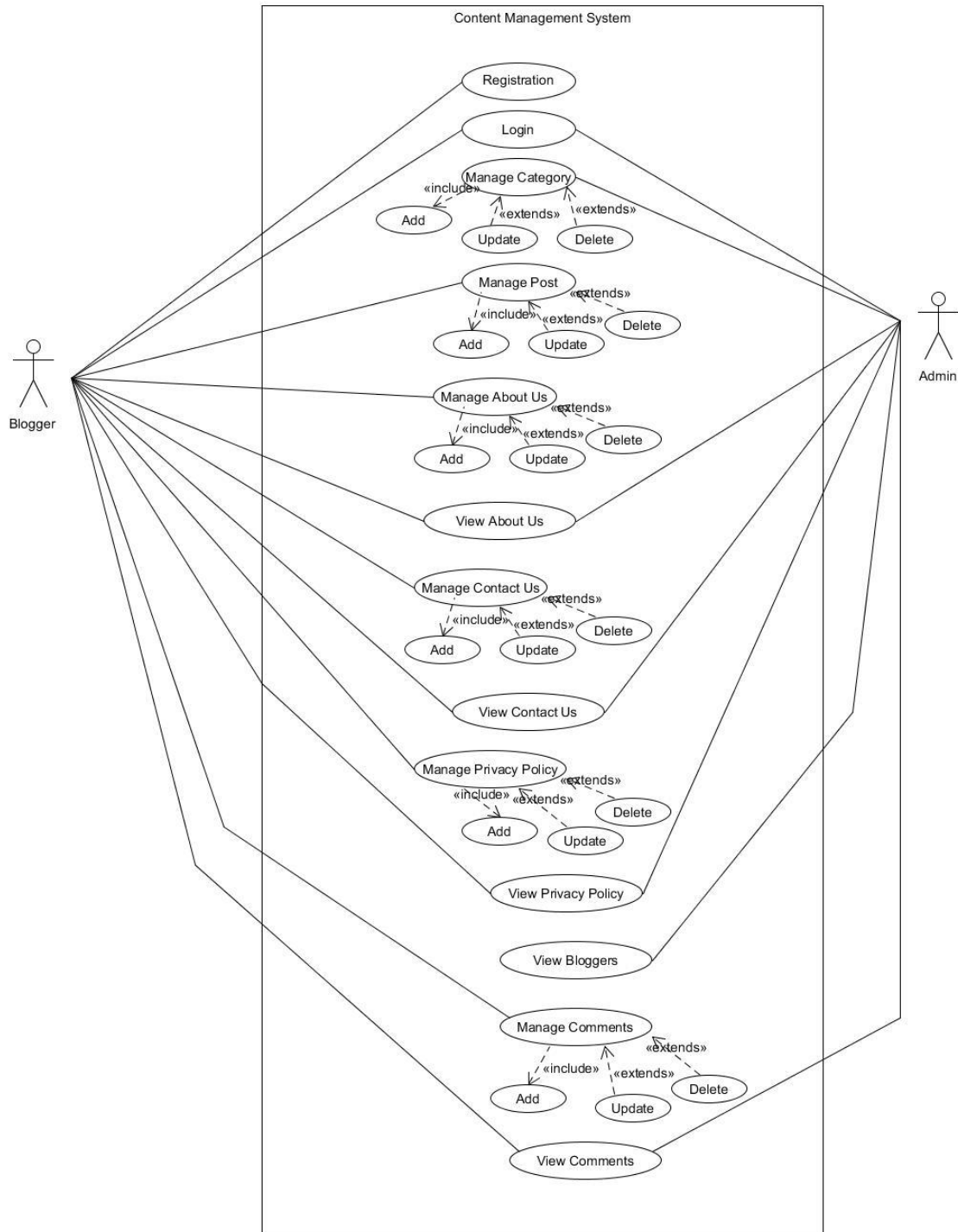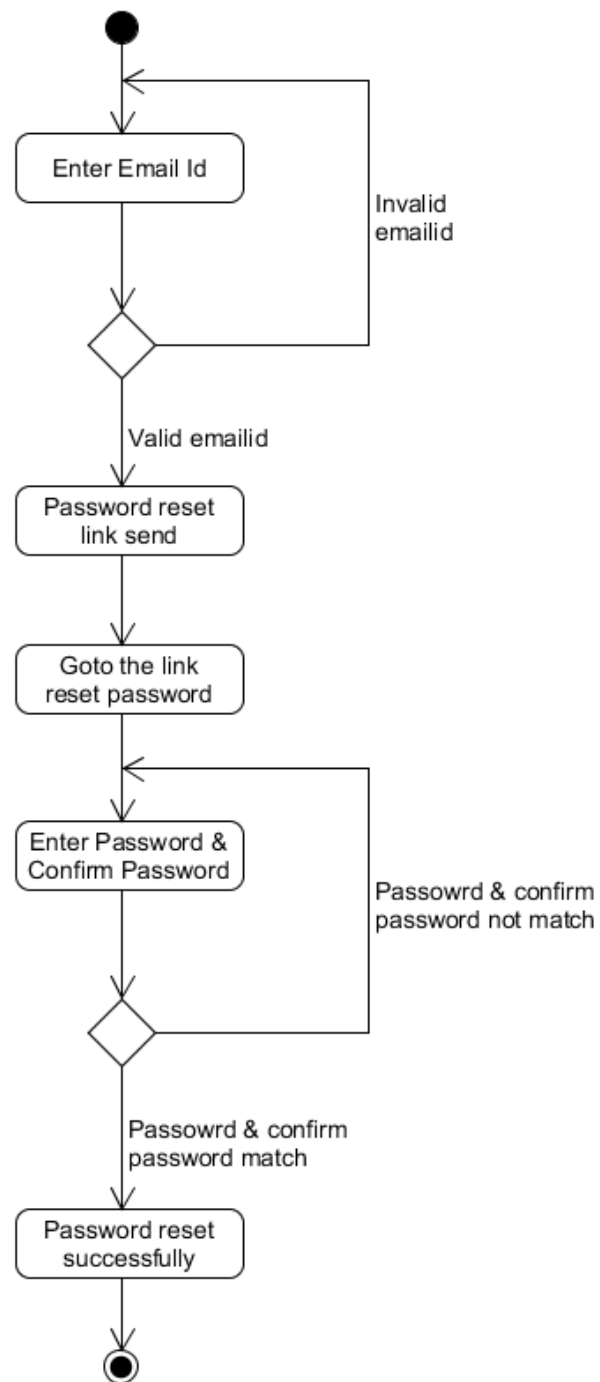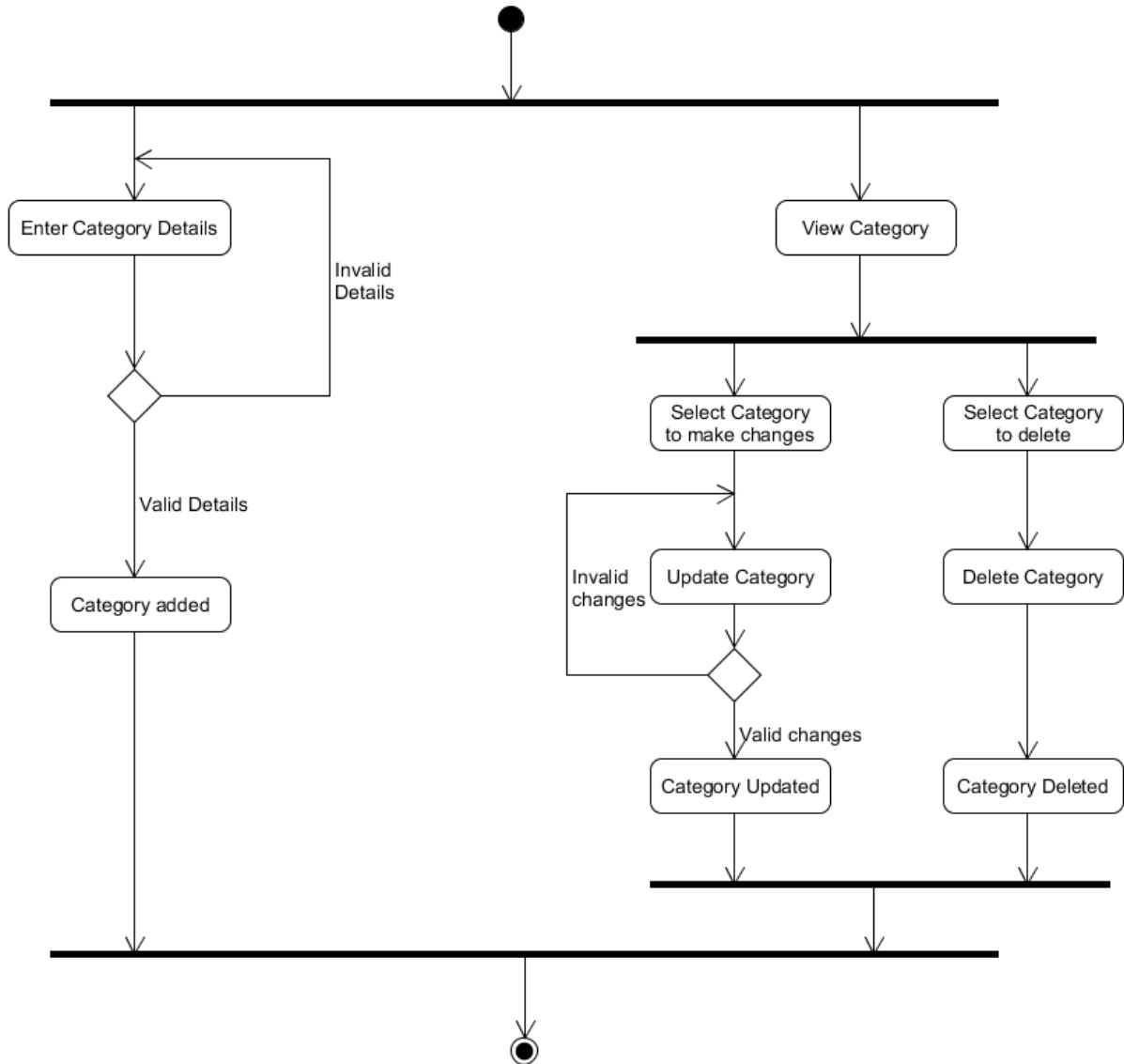
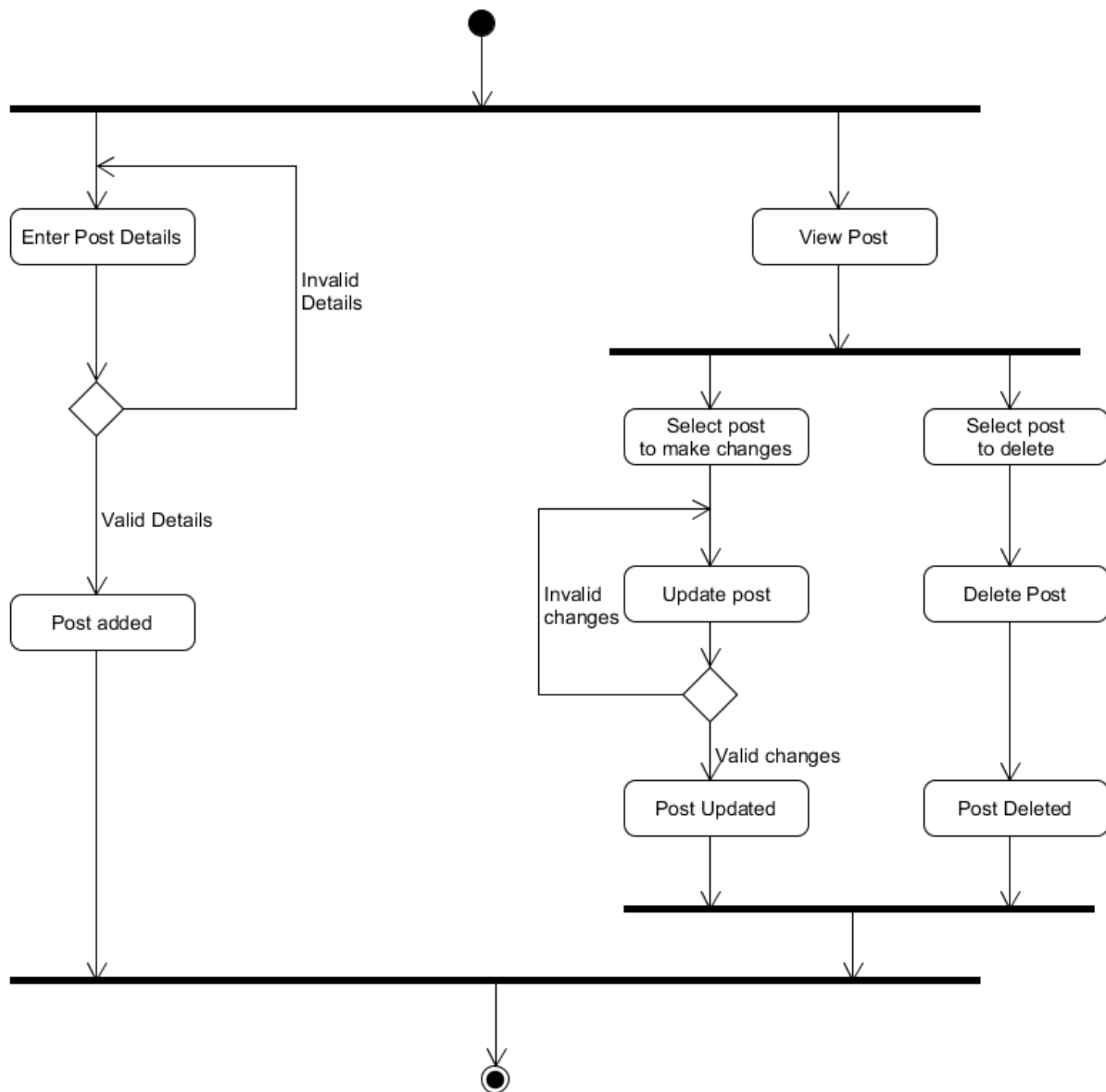## 5.2   Activity Diagram

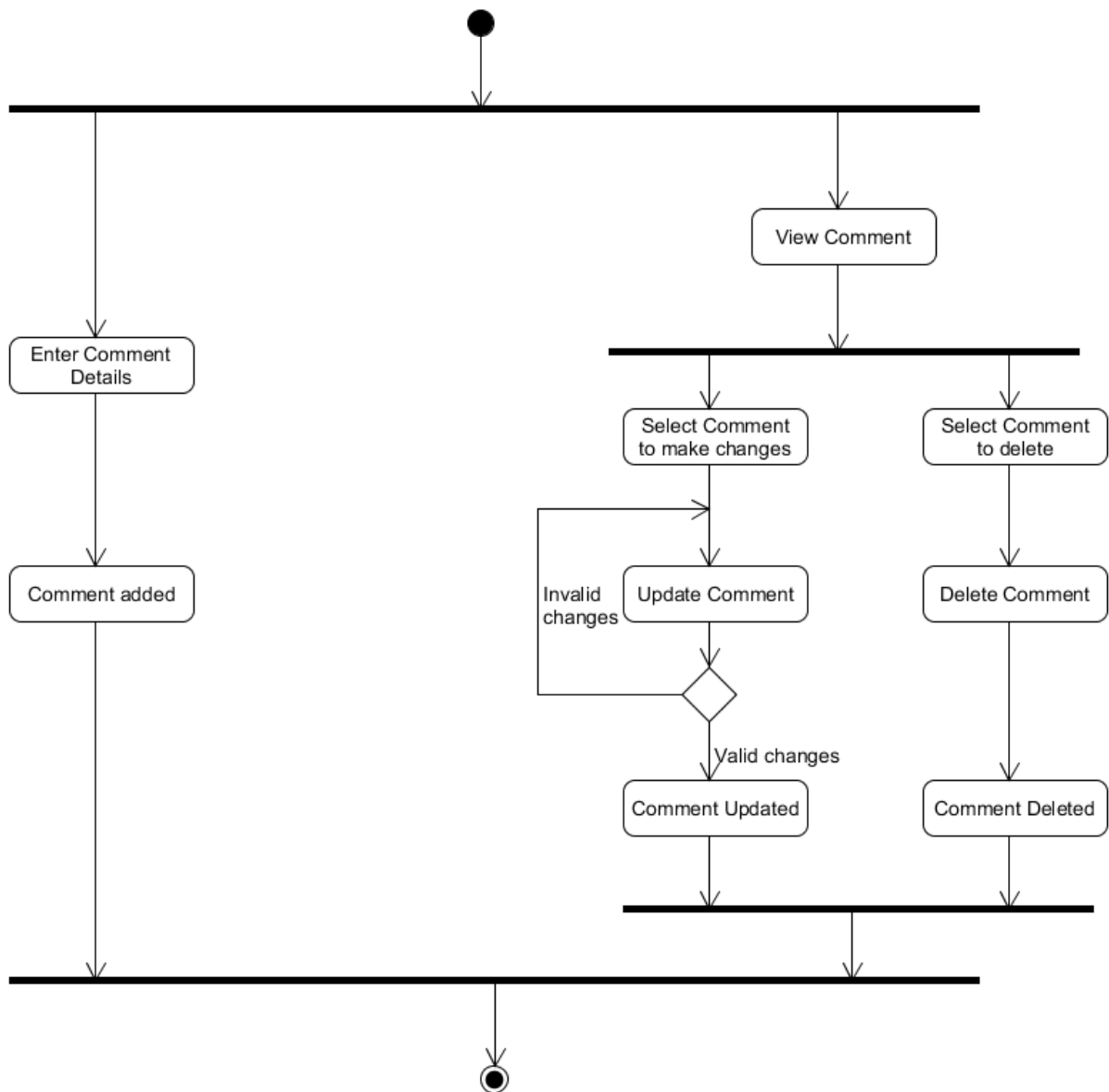- **Registration**

- **Login**

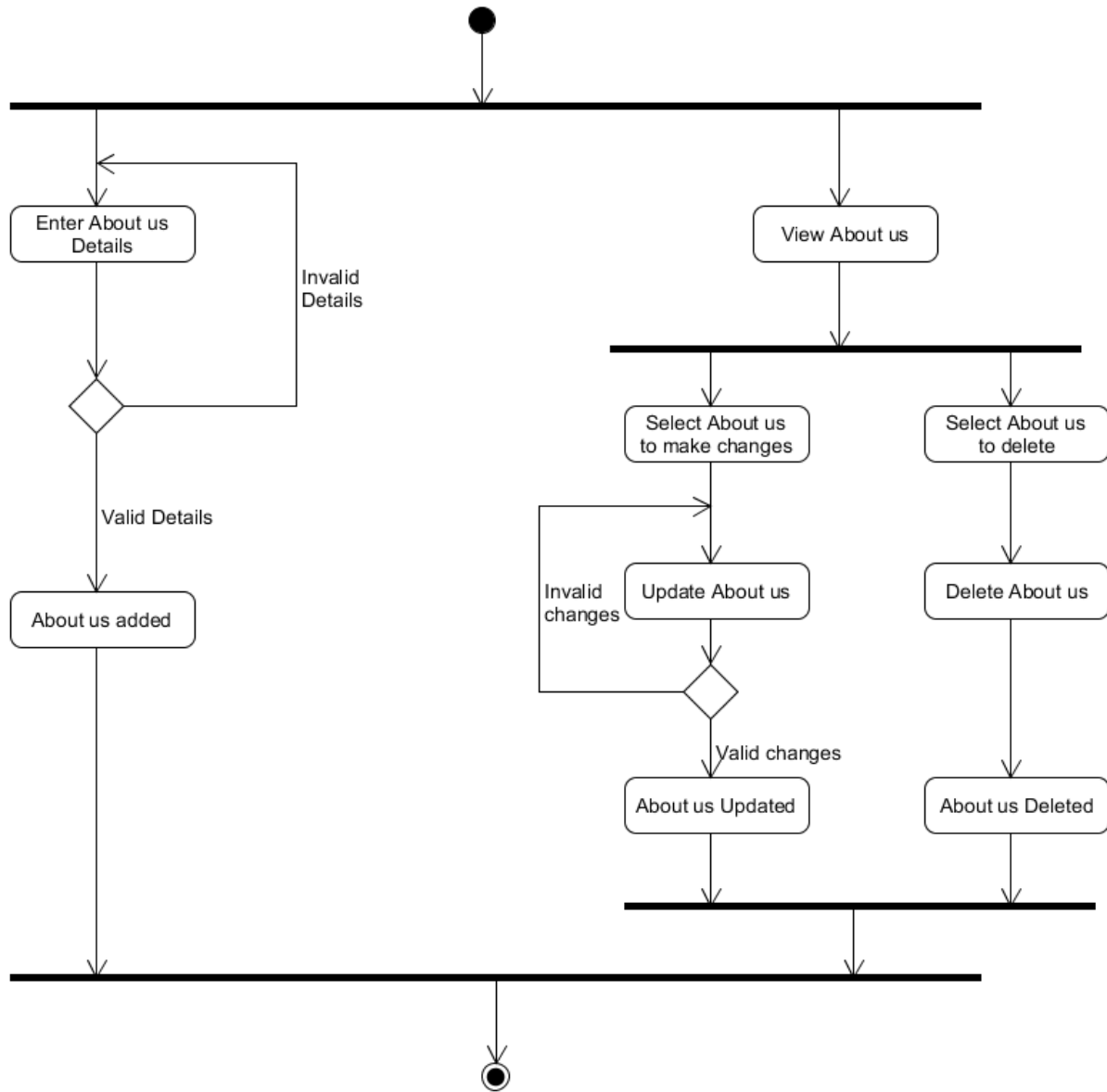- **Forgot Password**

- **Manage Category**

Enter Category Details

Invalid
Details

View Category

Select Category
to make changes

Select Category
to delete

Valid Details

Invalid
changes

Update Category

Delete Category

Category added

Valid changes

Category Updated

Category Deleted

- **Manage Post**

Enter Post Details

Invalid
Details

Valid Details

Post added

View Post

Select post
to make changes

Select post
to delete

Invalid
changes

Update post

Delete Post

Valid changes

Post Updated

Post Deleted

- **Manage Comments**

Start → fork

View Comment

Enter Comment Details

Select Comment to make changes

Select Comment to delete

Comment added

Invalid changes

Update Comment

Delete Comment

Valid changes

Comment Updated

Comment Deleted
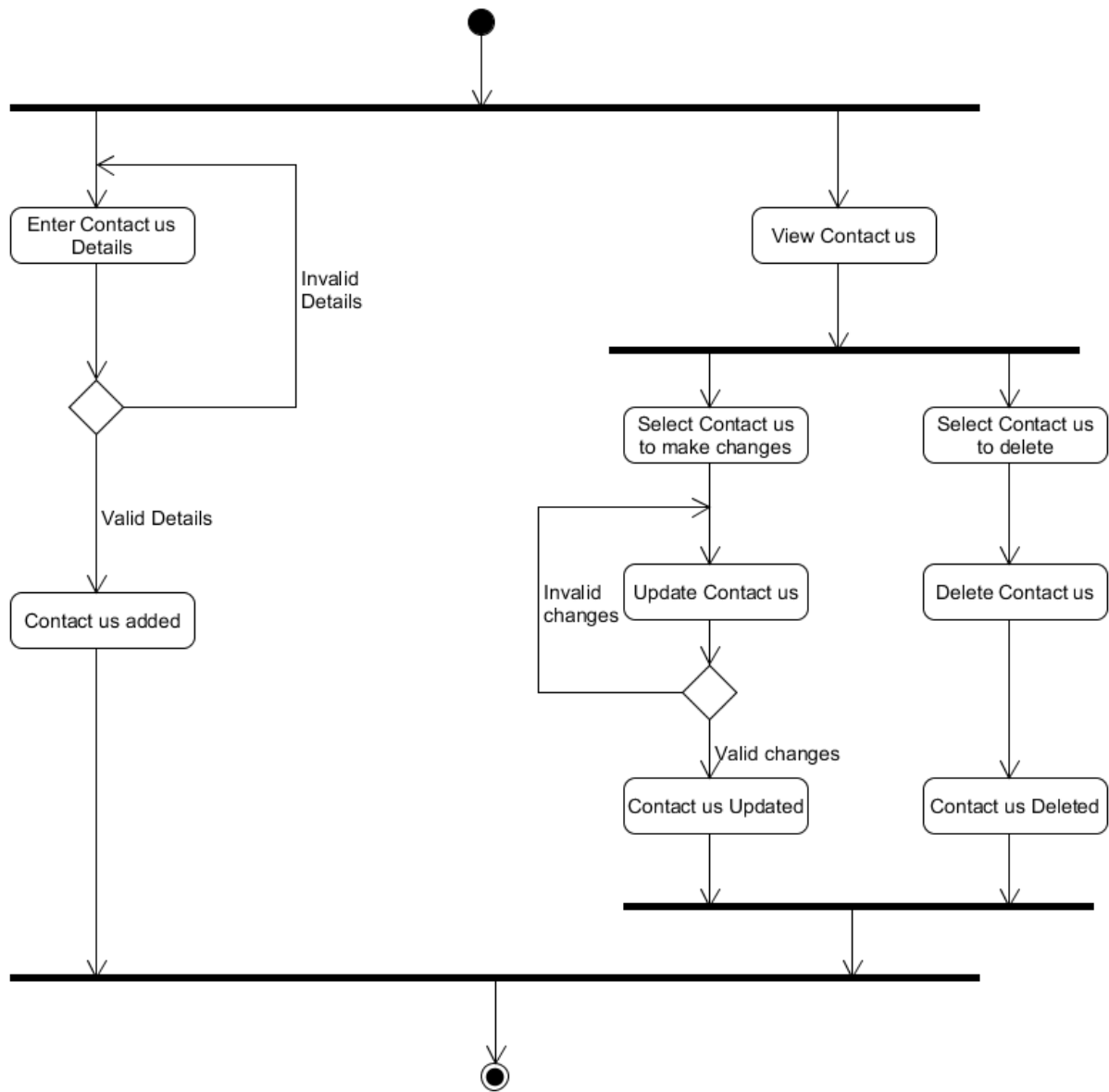
- **Manage About us**

- **Manage Contact us**

- **Manage Privacy Policy**