

# CodeGuide

SRS

Introduced By TeamG11

# Introduction

## Executive Summary

**Code guide is a website service to everyone, especially people who Interested in programming. they face many problems while coding because they don't find the best function which executes Their target perfectly.**

**it should offer millions of questions and answers about actual problems facing some users as a large question bank will be formed and it will increase incrementally by users' interaction.**

**it should offer the best online courses related to certain languages they want to learn and online problem solving tests so users can improve their skills .**

**It should provide experts' answers for questions asked by users using service " Ask a specialist" .**

**It allows users to create groups where they can discuss certain problem or work on a certain project**

## Document Overview

This document introduce code guide study plan. It introduce general description, technical description, development plan, operation plan, cost analysis and marketing study.

## Reference:

1. [https://en.wikipedia.org/wiki/Stack\\_Overflow](https://en.wikipedia.org/wiki/Stack_Overflow)
2. <https://stackoverflow.com/tour>
3. <https://askwonder.com/q/what-are-the-key-features-that-have-led-to-stack-overflows-success-in-crowd-sourcing-high-quality-57932bfd411caa2500ea4f78>
4. <https://en.wikipedia.org/wiki/Quora>

# System Description :

## • Introduction :

- ✓ Code guide is a website service to everyone, especially people who Interested in programming. they face many problems while coding because they don't find the best function which executes Their target perfectly.
- ✓ it should offer millions of questions and answers about actual problems facing some users as a large question bank will be formed and it will increase incrementally by users' interaction.
- ✓ it should offer the best online courses related to certain languages they want to learn and online problem solving tests so users can improve their skills .
- ✓ It should provide experts' answers for questions asked by users using service " Ask a specialist" .
- ✓ It allows users to create groups where they can discuss certain problem or work on a certain project.

In Order to simplify recognition of the system we divided it into many Modules as the following :

### I. **Interior Modules** : that interact with system directly

1. Posts Module
2. Specialist Module
3. Interactive Groups Module
4. Users Module
5. Programing languages module

I. **Exterior Module:** that is external to system and classified as its environment

1. Credit Agencies
2. StackOverFlow integration
3. Online Courses Sites (e.g.: Udemy,...)
4. Visitors (user with no accounts)

## **Modules :**

### **1)Posts**

User can interact with community by Posting his Question

#### **A) Questions and Comments**

can write his question or reply to others questions by commenting.

**Some of its features are listed below:-**

1. User can upload images & files related to his question.
2. User can include links.
3. Posts can be written in different fonts,styles,sizes & colors.
4. User can write the code that he wants to ask about in a specific area.
5. User can use tags to relate his question with specific topic.
6. Number of characters that user can type are limited to 600 characters.

#### **B) Language**

The user decide which language he want to ask the question in or if he asking a general question.

User can show Posts related to certain language by filtering

All questions are tagged with their subject areas. Each can have up to 5 tags, since a question might be related to several subjects.

Click any tag to see a list of questions with that tag, or go to the tag list to browse for topics that interest you.

## **A) Rates**

The system enables evaluation for every post and question. The evaluation based on the quality of the generated questions.

System trust the user's ability to do evaluation. Users may rate the question and the answers.

By time the rating helps other user to find most high rated question and high rated answers. That helps users to find their answers easily.

Its features:

1. There are only postive rating.
2. The comments are rated by others and the answer that has the best rating will be marked as the best solution.
3. And the mark is a blue tick beside the comment.
4. Best rated comment will be put below the question so that other users searching for the same question can reach the best answer easily.

## **2) Specialist**

This module provides specialist to sign up on site and answer the question asked by users for money and users can join in group with him and be in continuous contact with him.

User's questions appear on the home page for the specialist after signing in and he can show all users' questions.

Specialists can create groups with users to make a specific project where users can benefit from this group.

### **A)Technical profile**

On the specialist profile there will be:-

- His rating which the users gave to him.
- The number of questions he had answered.
- It has his technical skills and languages that he domains it.
- His gmail account so User's questions will be directed to the gmail of the specialists if they didn't open the website.

### **B)Income:**

Each Specialist according to his rates will be assigned to level of specialist and each level has it profit for answering the questions .

## **3) Groups**

Groups module is a section in the website where users can learn , communicate and work on project together so that users can learn how to work in a team by the interactions between them .

Every group should have a main theme, idea or project. The users can add questions and set the expected answer through polls system. The admin user can control the group and who will enter that group.

The group specifications as follows

- System provide any number of questions in the group.
- System supports polls for users to help discussion.
- The polls are created by any users.
- Users can rate the questions and answers.

- Users can't access the group project question or posts unless they apply for it.

Groups can be created for multiple purposes such as Arranging and following projects and discussing certain ideas in specific field of coding.

### **A) Members**

The members of group either be instructors or students, it could have one or more specialist.

### **B) Posts**

The posts created in this group will be exclusive to this group .

Nobody outside this group can access this posts

### **C) Polls**

Admin of each group can make a poll for his students about the incoming events.

Students or members of the group could vote to this polls.

## **4) Users**

### **A. Profile**

Profile page includes basic information of the user:

1. Username (should be unique).
2. Password (should not be less than 12 characters and include at least one letter).
3. Profile Picture
4. It contains his posts.
5. A tab including all the website questions.
6. A dropdown box for notifications.

## **A. User Should**

1. Login first in order to post his question or reply to others questions.
2. Make his question specific & clear as much as possible.
3. Help people with their problems so that others can help you with your problems.
4. Consider that the number of characters does not exceed the limit.

## **5) Programing language:**

Posts in code guide can be filtered by language as all questions of a certain language grouped together

Once user choose a certain language of programming the following must be shown:

- i. All questions related to it.
- ii. Links takes you to Online courses of this language in another supported sites.

## **6) Credit Agencies:**

This module external to system. It can be in the environment of Code Guide.

This Module responsible of money transfer in site:

From users to site and from site to specialist and so.

## **7) Stack Over Flow**

This module connects between Our sites “Code Guide” and Stack Over Flow such that:

Users Can access Stack Over Flow Site if there inquires not match any results on CodeGuide and they cannot afford Ask Specialist Option and





really need fast response, at that case CodeGuide will provides link to connect Stack Over Flow and see if your inquiries found there or not.

### **8)Other Sites Extensions:**

This section of Code Guide is also in its environment as it provides only the link of online courses for a certain (chosen ) language from other sites (after there agreement off course ) e.g.: udemy-coursera ...,etc

The purpose of this section to make complete environment for developer or software students and provides all there needs in same site And enhance there understandability of certain courses

Also this section provides links for exams from other sites in order to test the developers or software students their levels and how much they proceeded.

In brief this section is made in order to provide a complete environment for developers or software students so they can : learn , Ask and test their skills.

### **9) Visitors**

Finally, this is the last module in environment of Code Guide System.

Those visitors who interact with code guide system without having their own database on site (as they have no account).

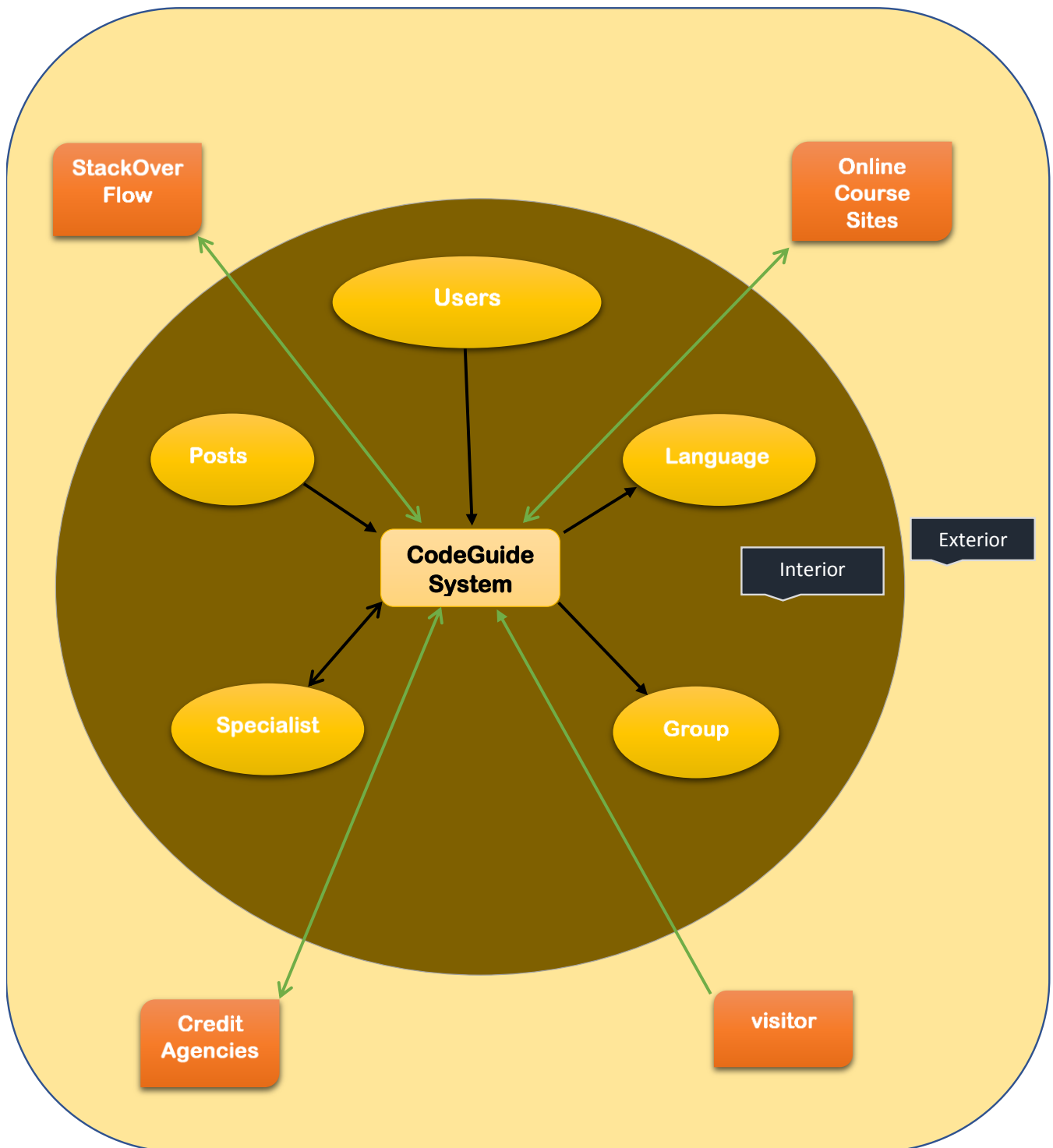
They can access limited features on Code Guide which is :

- i. Search for a problem facing him using search engine.
- ii. Get links for online courses in certain programming language
- iii. Get links for exams in certain programming language

They couldn't access making posts or putting comment on them.

They of course couldn't get specialist.

## Context Diagram for Code Guide:



## • Modules

Posts	<ul style="list-style-type: none"><li>• Posts in Code Guide is simply questions asked by users about the problem faced them in programming</li><li>• To create Post you must have any account on code guide</li><li>• Also in making post you must determine which language this post related</li><li>• These posts can be filtered by language where all questions about this language are grouped together</li><li>• Each question will have answers answered by other users or specialist, these answers will get rate by users and most helpful answer will have highest rate and so will be put first, after the questions directly.</li></ul>
Interactive groups	<ul style="list-style-type: none"><li>• These groups are a tighter area for a group of users where they can communicate privately and easier than in public.</li><li>• Group will have its admin whom organizes it “instructors most often” &amp; members</li><li>• Posts and material in the group will be exclusive to that group nobody outside group could access these information</li></ul>
Users	<ul style="list-style-type: none"><li>• Each registered user should have his/her profile that contain all information about him/her.</li><li>• All registered user could make posts and answers to posts of others</li><li>• They could make group and add other members to it</li><li>• Only unregistered users wont be able to create or comment on posts.</li></ul>
Specialist	<ul style="list-style-type: none"><li>• This is very special module.</li></ul>

## • Users

Specialist	<ul style="list-style-type: none"><li>• This is very special module.</li><li>• Each specialist should have a professional account</li><li>• This account should reflect specialist skills and language he experts in.</li><li>• Specialist will get paid according to its rates (more requests he gets more money he gains).</li></ul>
Administrator	<ul style="list-style-type: none"><li>• They are one of the system users, They are actually the site managers and supervisors</li><li>• They supervise system update and maintenance.</li><li>• They decide which applicant as specialist will be approved to be one of Code Guide Specialist</li></ul>
Users	<ul style="list-style-type: none"><li>• They are either REGULAR users or PREMIUM users.</li><li>• Both types of users could access link of exams and online course, also they can create a posts and answers to other posts, they can also create a private group</li><li>• Premium users only get specialists to answer their inquires and help them to solve the problem facing them.</li></ul>
visitors	<ul style="list-style-type: none"><li>• They can access all the above features except:</li><li>• They couldn't create posts or groups</li><li>• They couldn't answer any questions</li><li>• They couldn't get help from specialist</li></ul>
specialists	<ul style="list-style-type: none"><li>• They are very special users that have professional account.</li><li>• They get paid for helping system users with their problems</li></ul>

# System user

## 1) Administrator

The admin is the coordinator who manages the content of website and maintains its design.

Activities:

1. He is responsible for updating the design of website
2. He keeps website backed up and fully function
3. He is responsible for maintenance of the website
4. He can ban users who break website policies
5. He can approve users that sign up with specialist accounts according to their technical skills and programming languages they are expert in.

## 2) Visitor

The visitor is the user that does not have an account in the website but he still can access some features when he opens the codeguide.

Activities:

1. He can search for his questions in the search engine.
2. He can see links of online courses
3. He can't write posts or comments

## 3) User

The user has an account on the website and sign in with it in codeguide, he get benefit of more features than visitor.

Activities:

1. Register as “member or specialist”.
2. Post a question and write comments.
3. Show his questions or all questions on the site.
4. Show notifications icon on navigation bar –where he can follow his questions updates & any updates in groups-.
5. Create & join groups to share knowledge with others and gain the experience of teamwork.
6. User can connect to the online courses.
7. User can use a paid service to ask a specialist about his problem.
8. Achievements section where the user can earn points by answering some questions.
9. Users can give rating for the comments on the posts
10. Users can bookmark the important questions

#### **4) Specialist**

He signed up in codeguide by creating a specialist account.

He must provide in his account his technical skills and programming languages which he is expert in it.

This account must be approved by admins first.

Once his account has been approved the premium users can get him.

Activities:

1. Register as “specialist”.
2. Answer questions that are assigned to him by premium users.
3. He Reply to questions of normal user by comments to get points, these point if exceed certain level he will take money for it.
4. He should attract premium user to assign him question to answer it, so He can put his CV in website and also his answers are rated by premium users and according to his rates the premium users chooses him for another questions.

# System modules

## 1. Posts

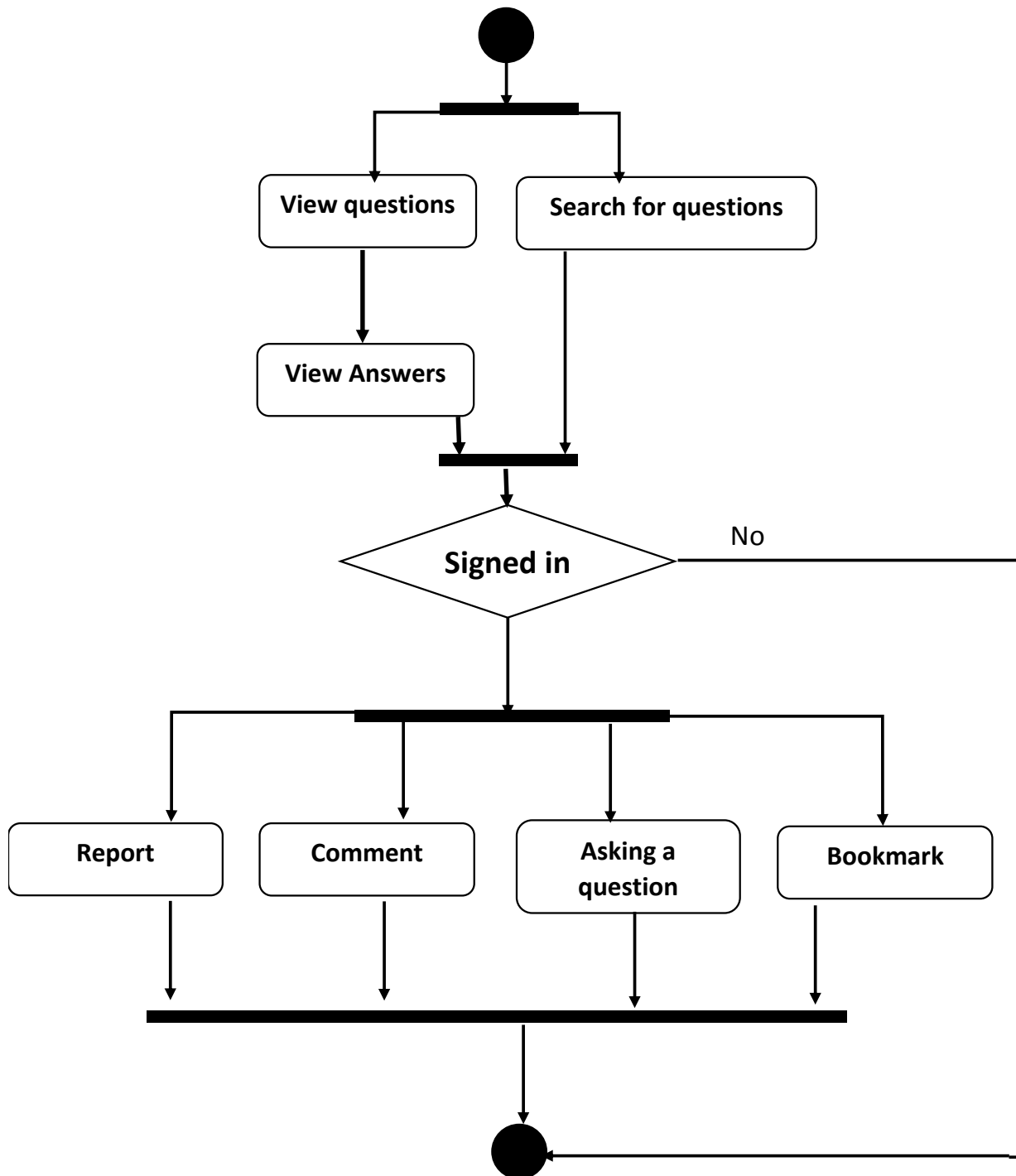
- Posts in Code Guide is simply questions asked by users about the problem faced them in programing
  - To create Post you must have any account on code guide
  - Also in making post you must determine which language this post related
  - These posts can be filtered by language where all questions about this language are grouped together
  - Each question will have answers answered by other users or specialist, these answers will get rate by users and most helpful answer will have highest rate and so will be put first, after the questions directly.
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- Context diagram:

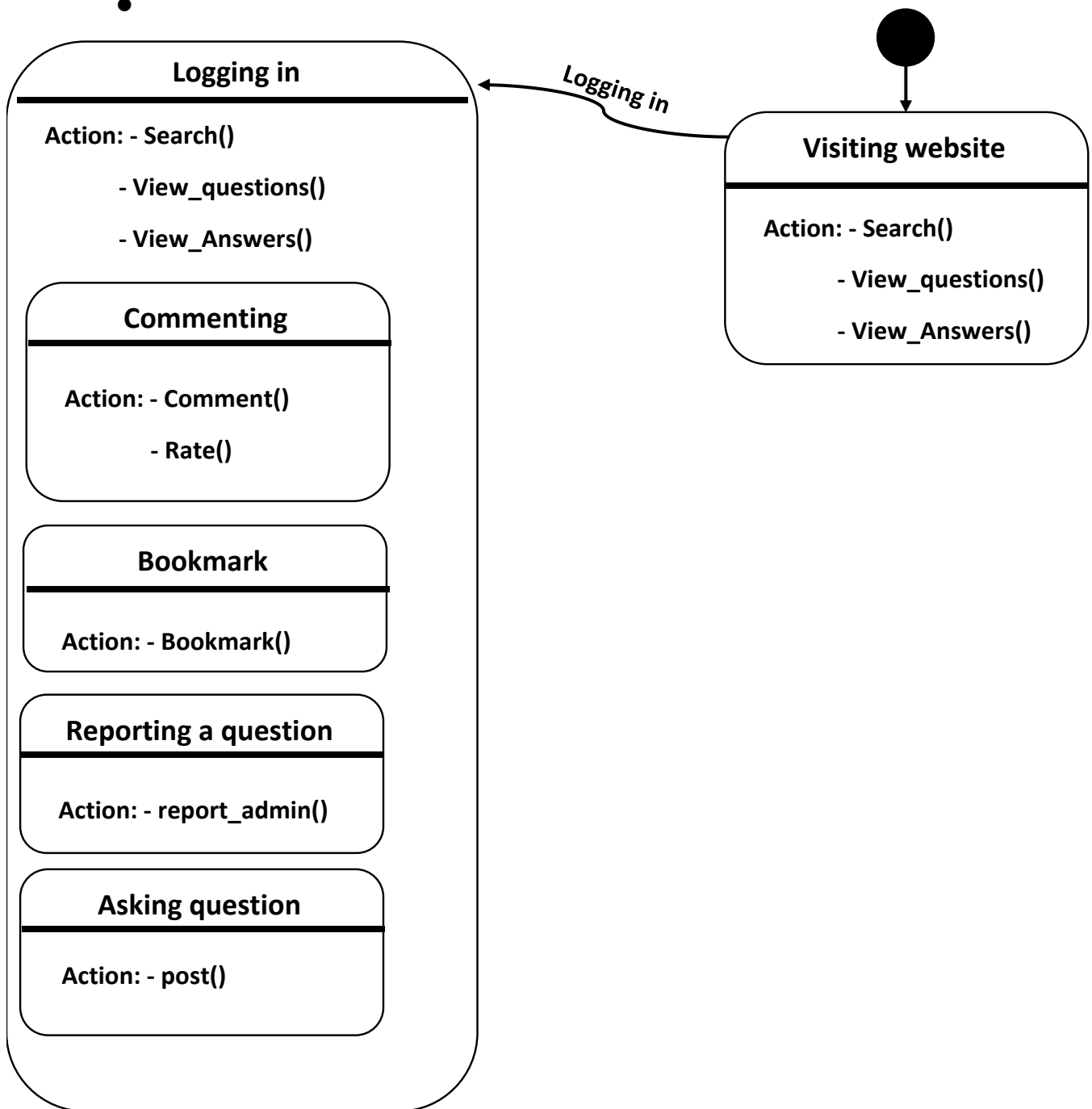




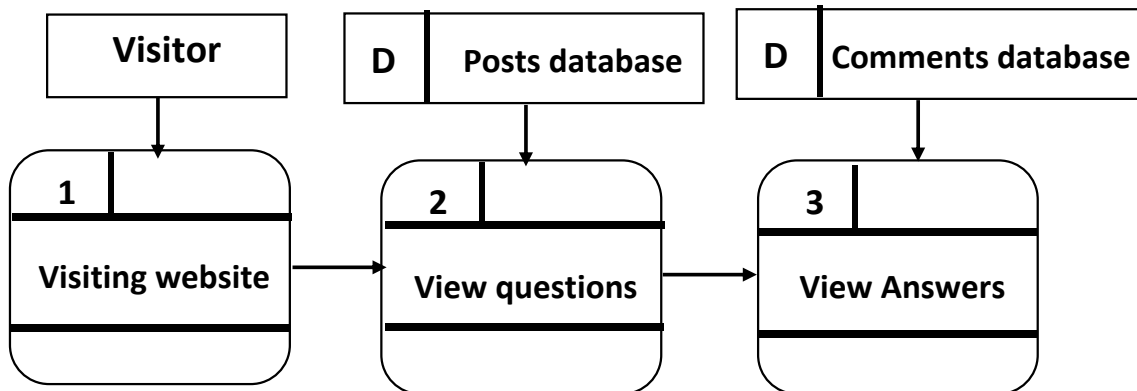
- Activity diagram:



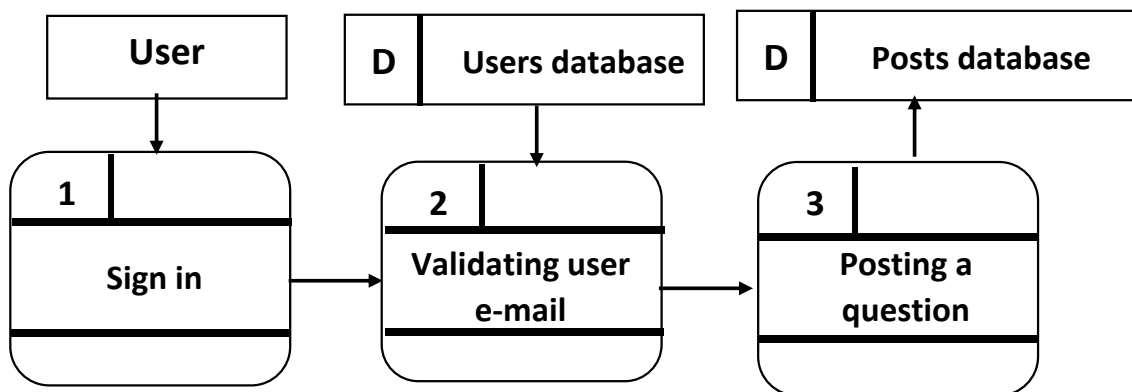
- State machine diagram



- Data flow diagram (Viewing posts)



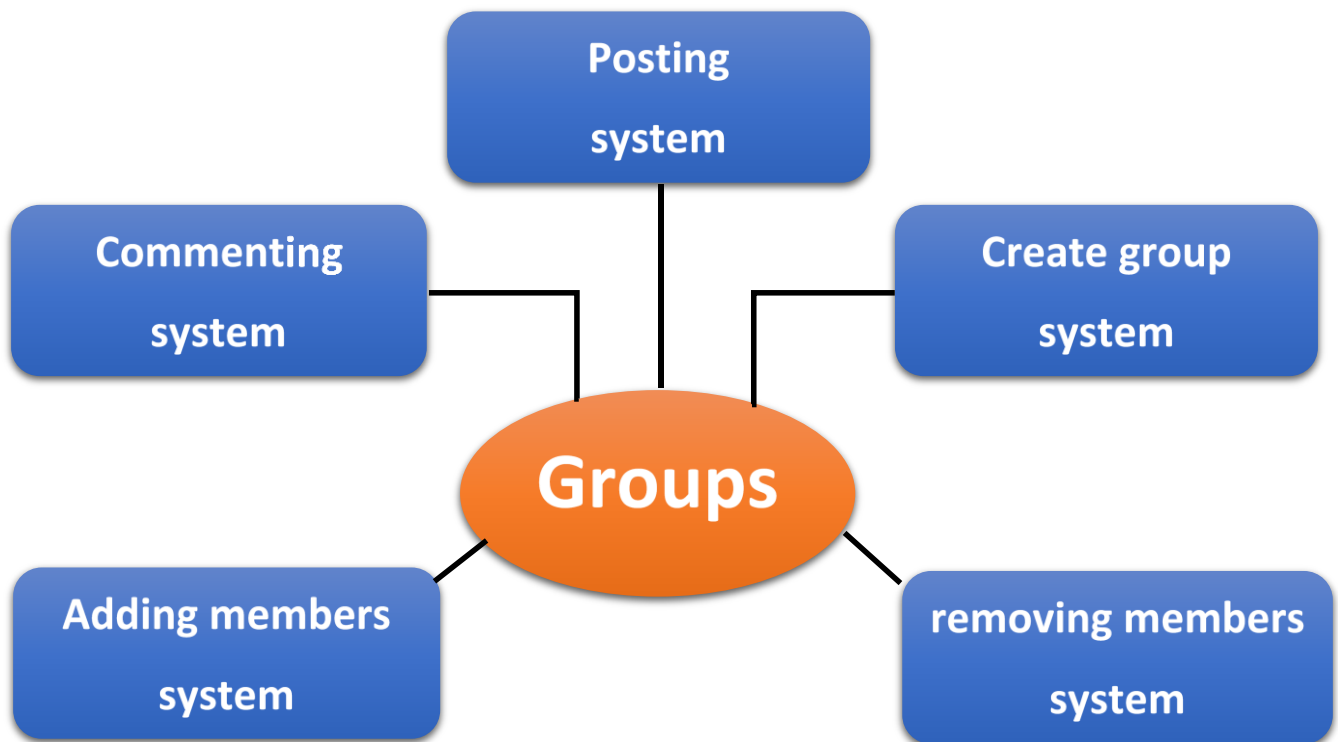
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- Data flow diagram (Posting)



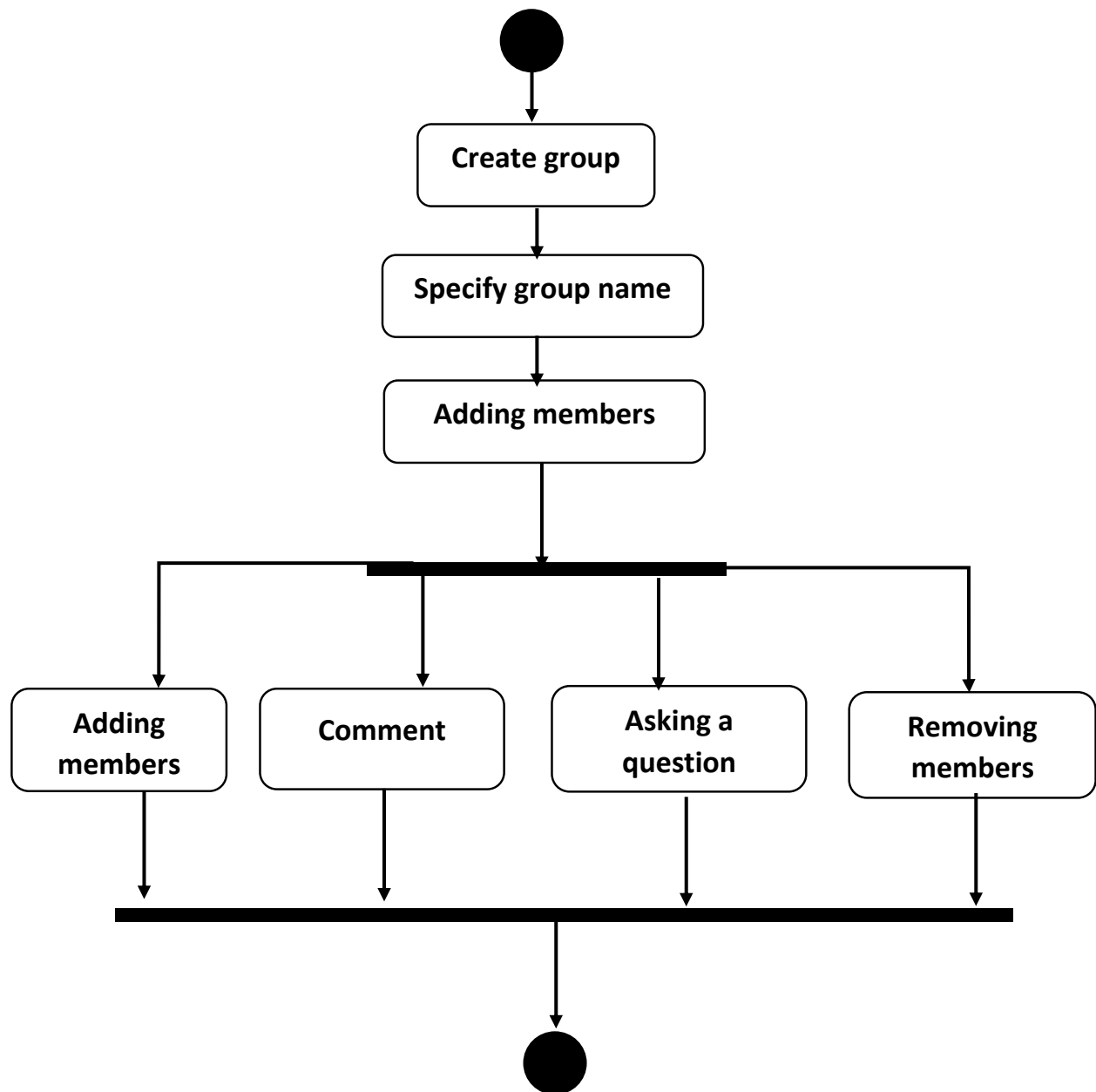
# 1. Groups

- These groups are a tighter area for a group of users where they can communicate privately and easier than in public.
  - Group will have its admin whom organizes it “instructors most often” & members
  - Posts and material in the group will be exclusive to that group nobody outside group could access this information.
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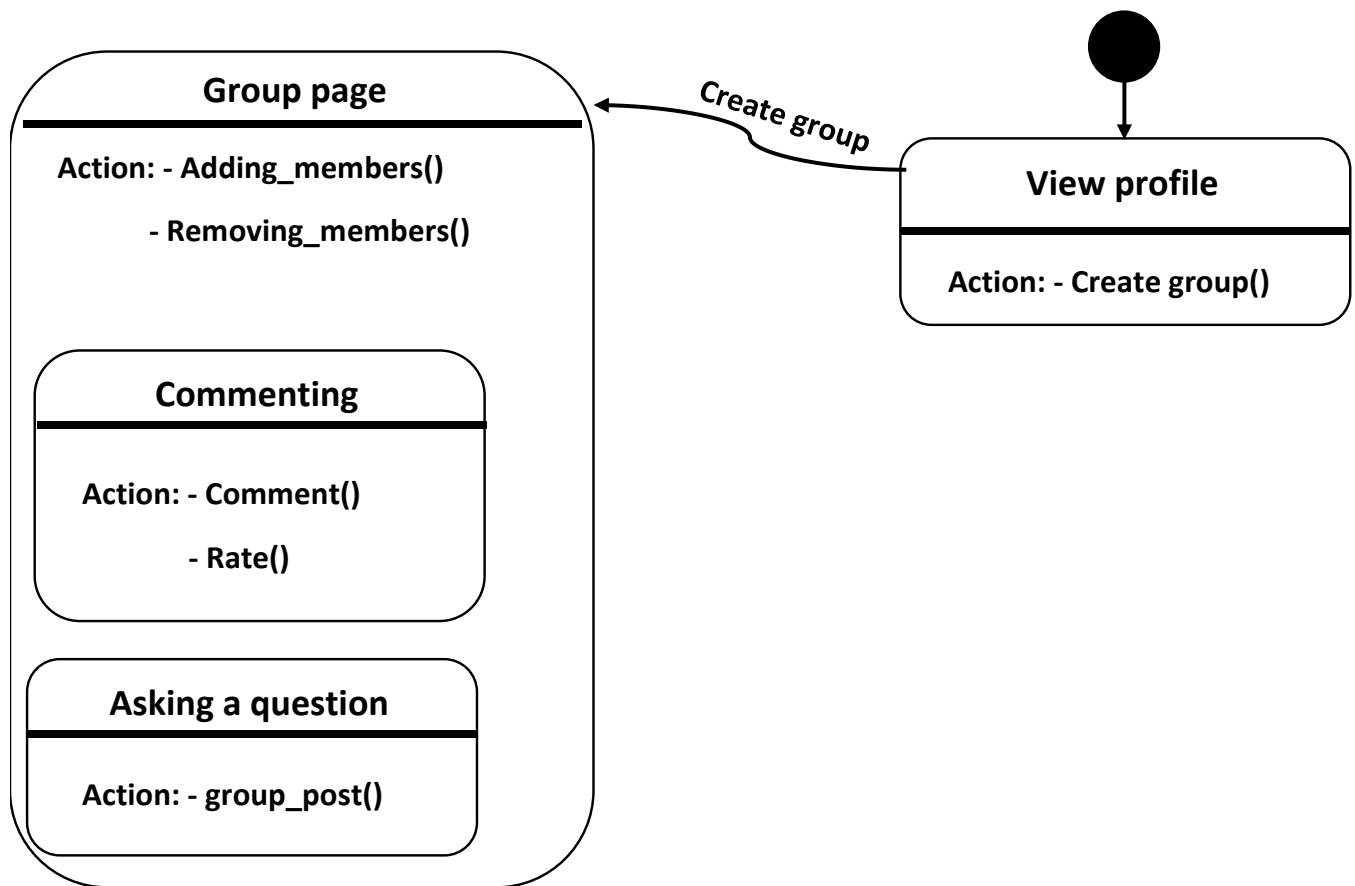
- Context diagram:



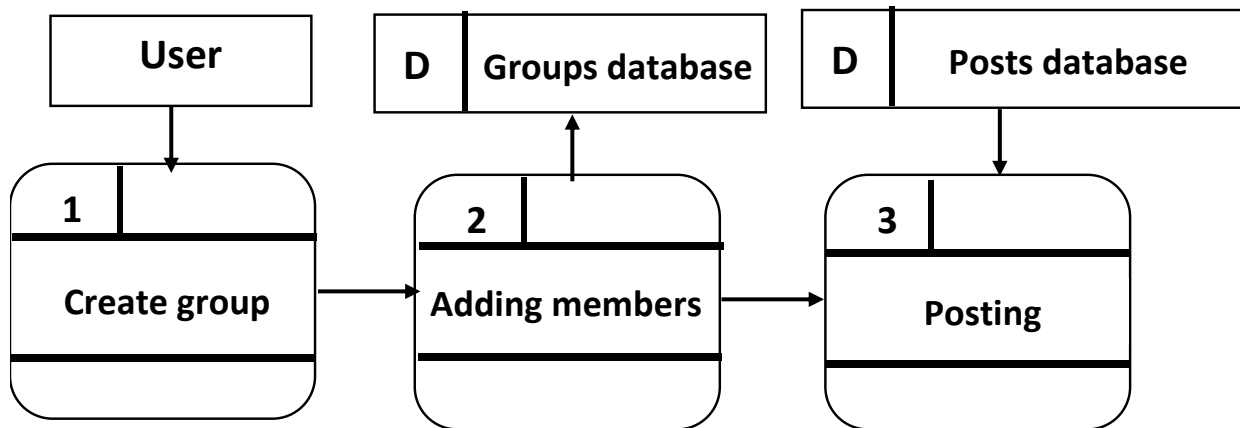
- Activity diagram:



- State machine diagram



- Data flow diagram

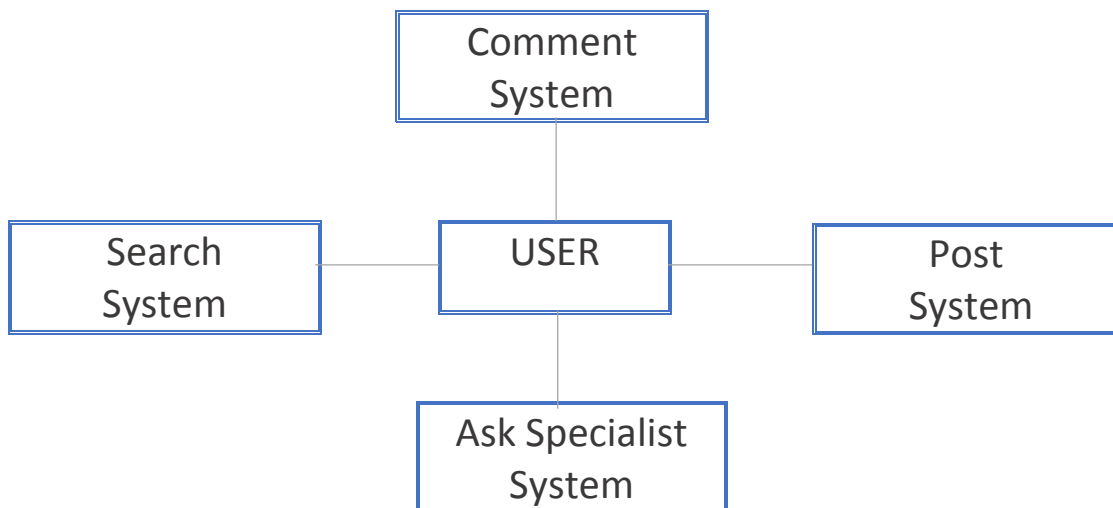


# User Module

The user has an account on the website and sign in with it in CodeGuide, he get benefit of more features than visitor.

User interacts with CodeGuide through different systems

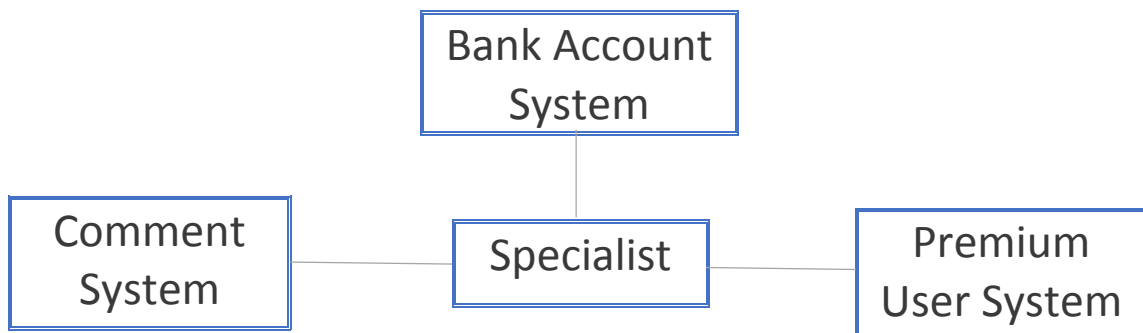
- Comment system
- Search system
- Post system
- Ask specialist system



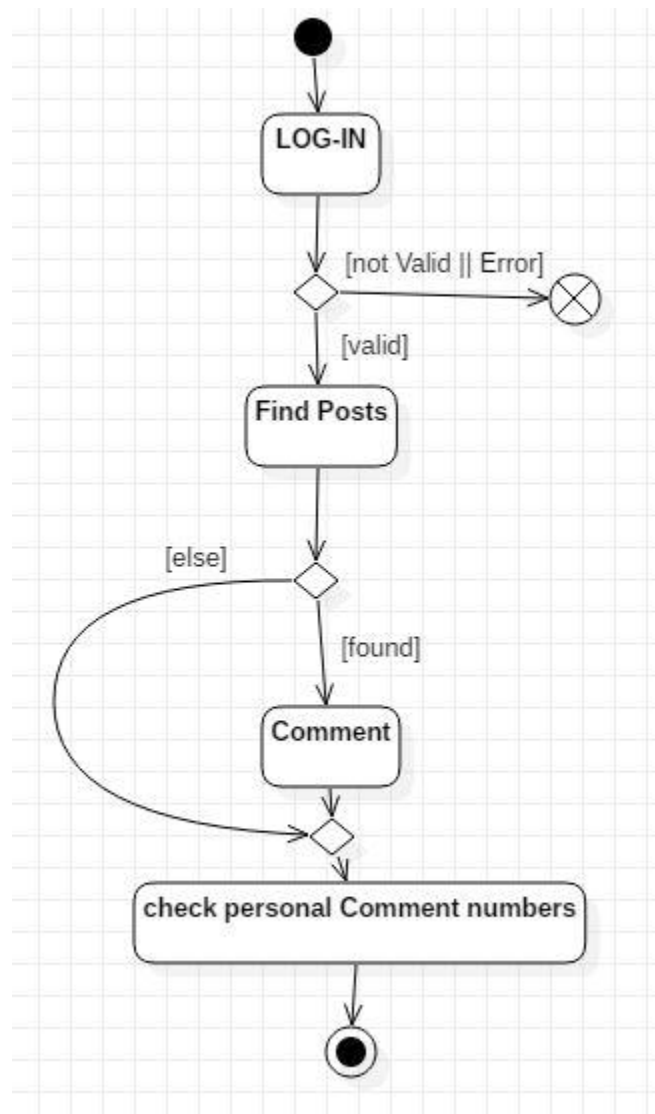


# Specialist Module

- Signed up in CodeGuide by creating a specialist account.
- Answer questions that are assigned to him by premium users.
- Must provide in his account his technical skills and programming languages which he is expert in it.
- His answers are recorded to inform him of his rate.

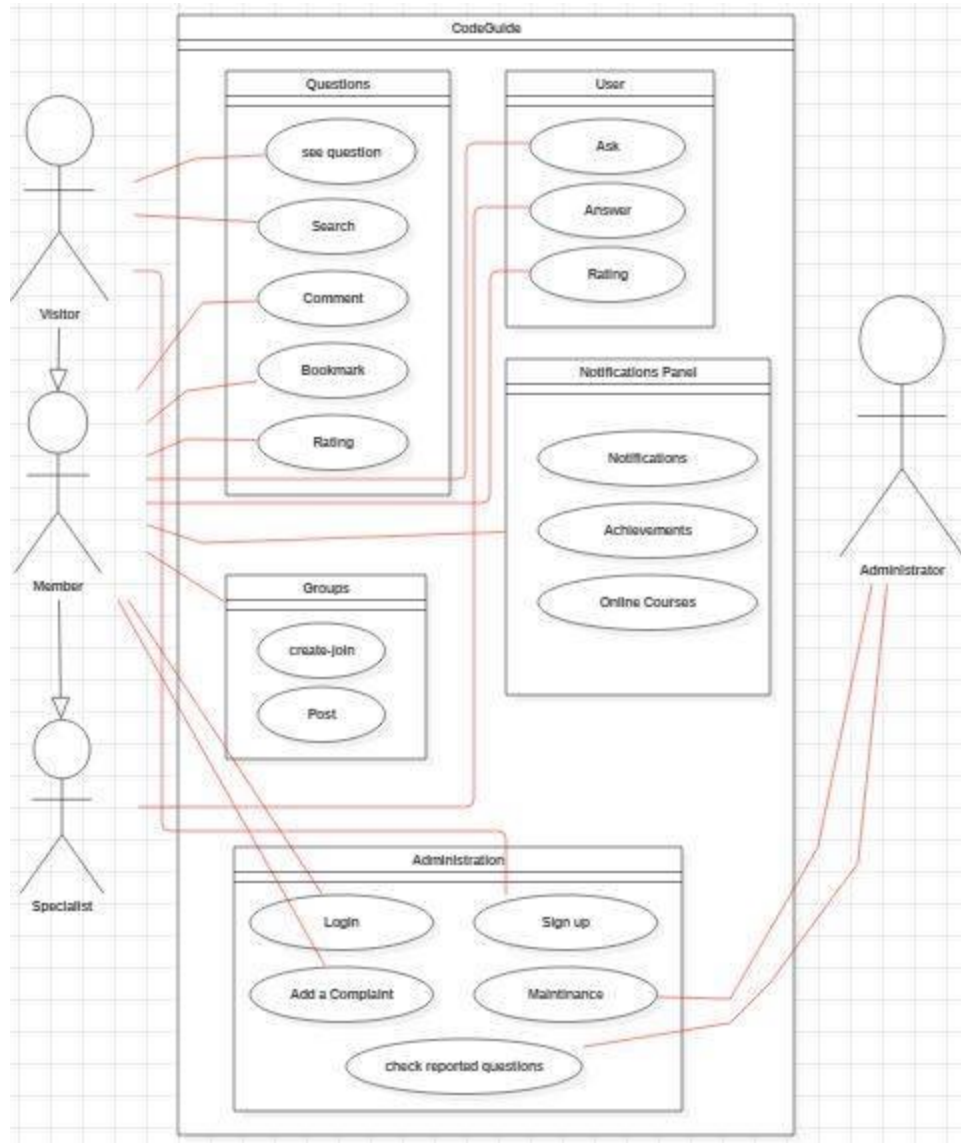


## Specialist Activity Diagram:

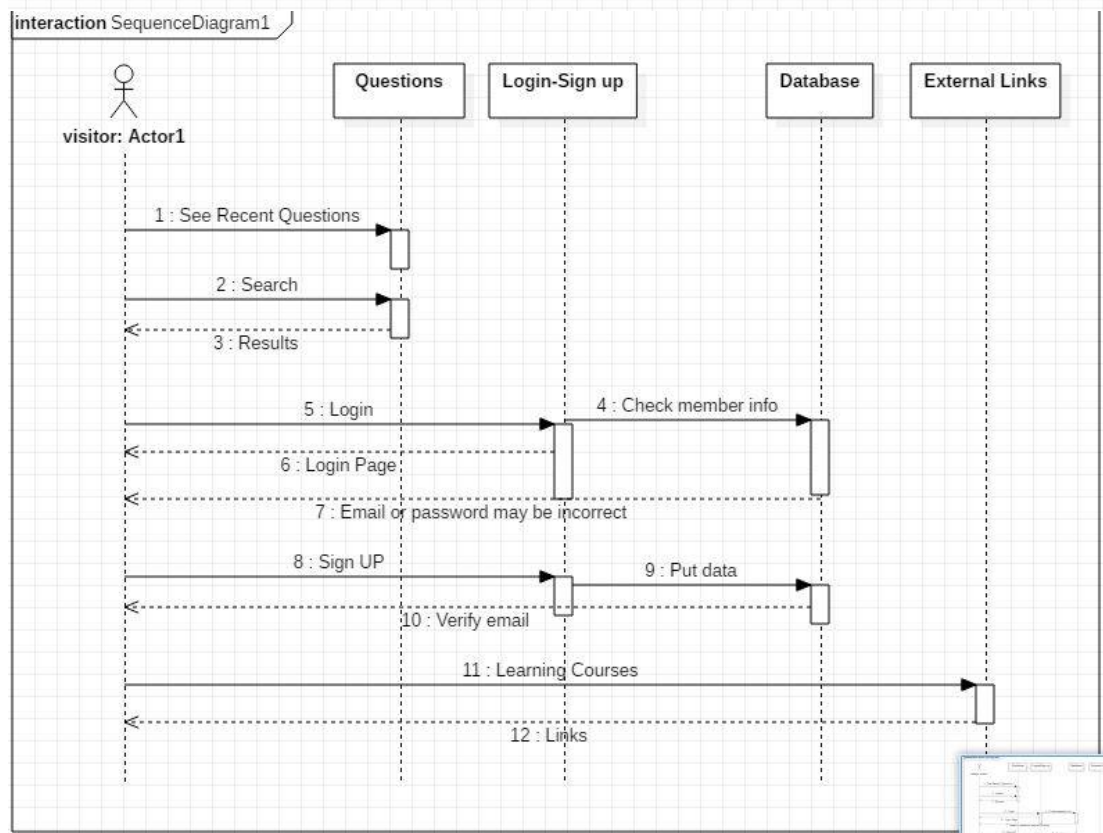
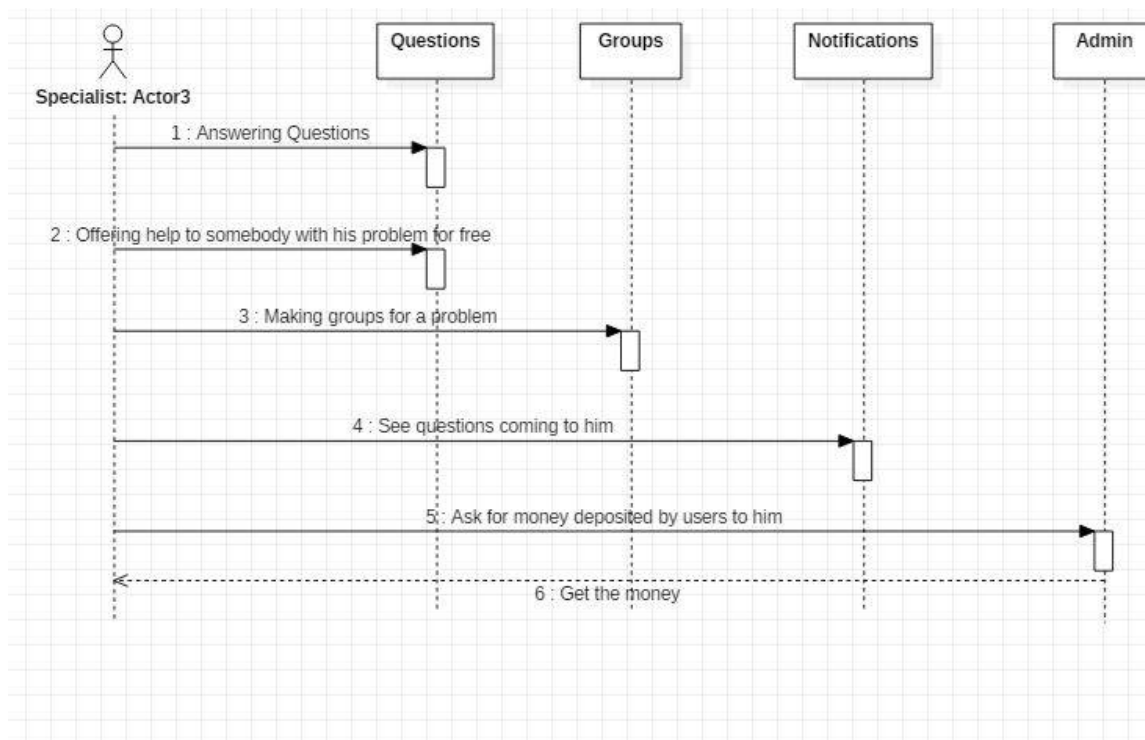


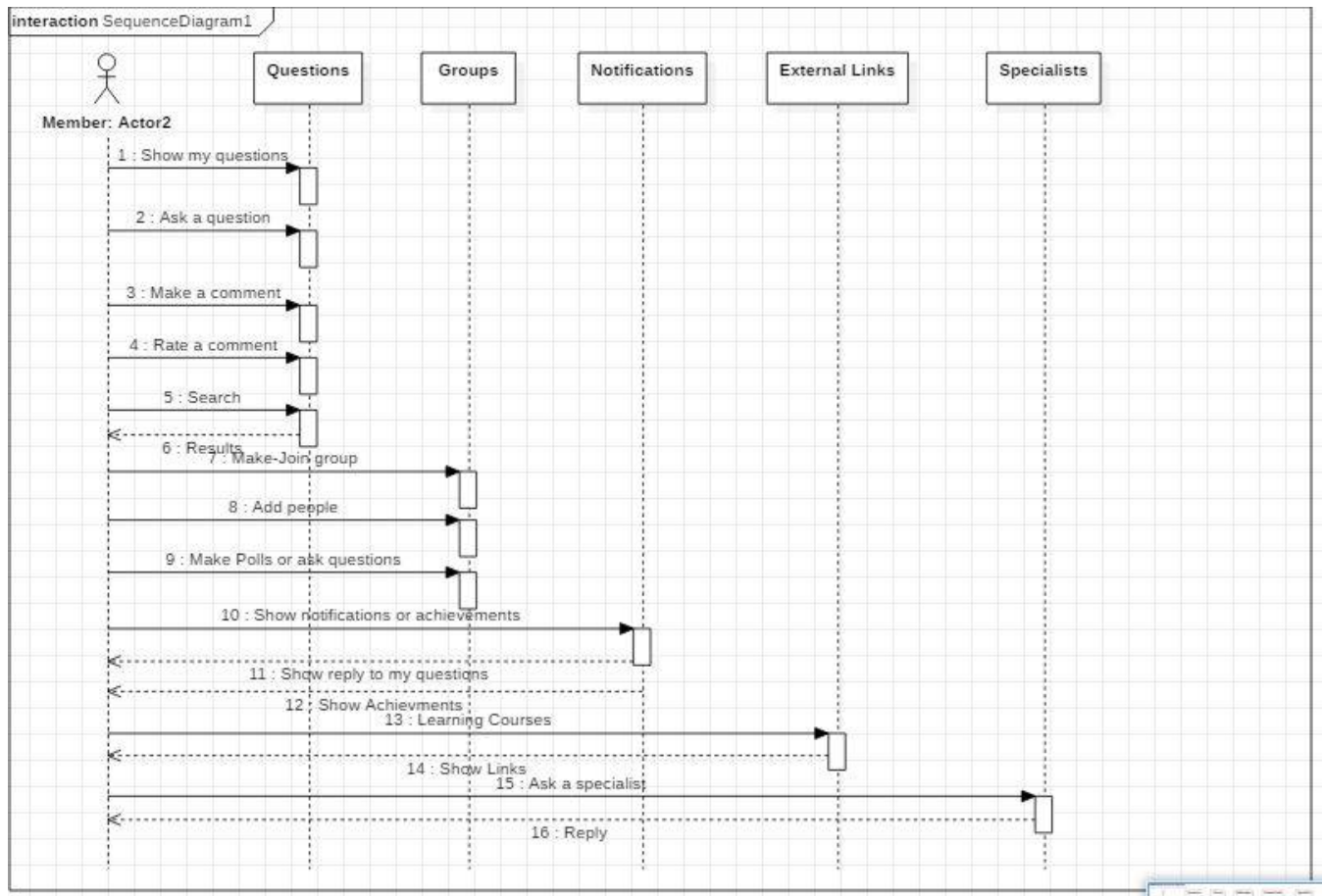
# System Models

## Use Case Diagram



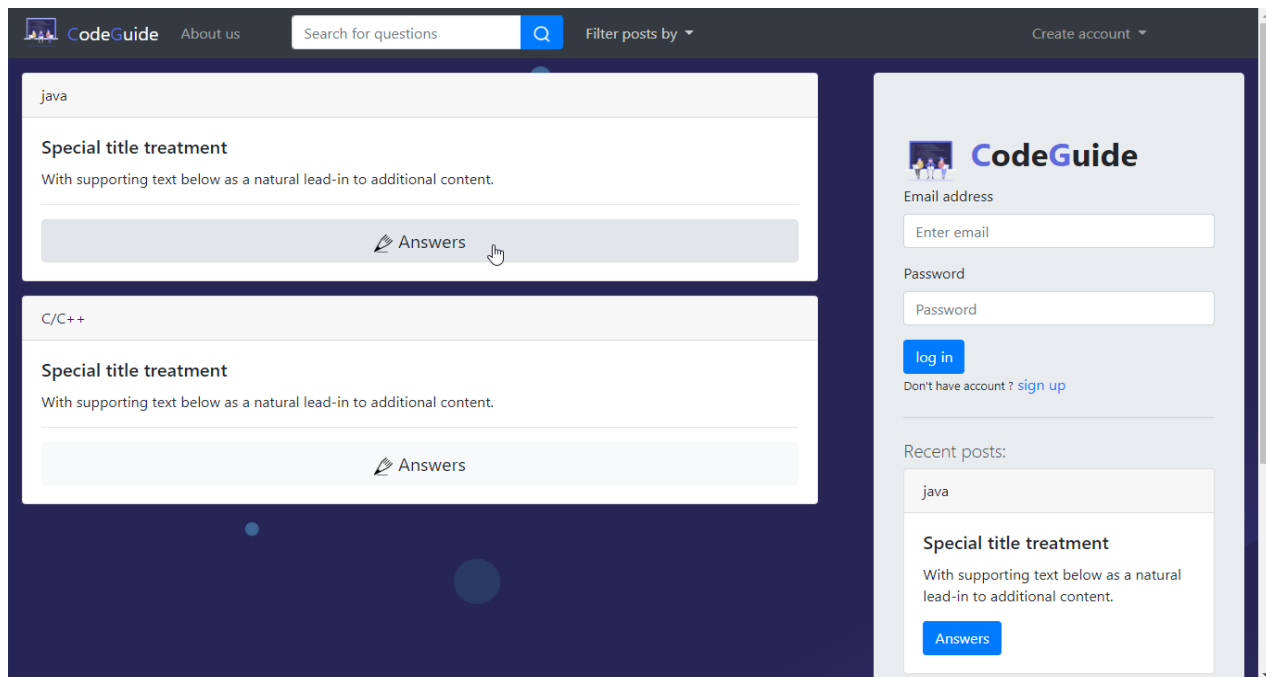
## Sequence Diagrams:





# System Interfaces

## Home Page:



The screenshot shows the CodeGuide home page. The header includes the CodeGuide logo, 'About us' link, a search bar with 'Search for questions', a 'Filter posts by' dropdown, and a 'Create account' link. The main content area features two question cards. The first card is for 'java' and the second for 'C/C++'. Each card has a 'Special title treatment' section with supporting text and an 'Answers' button. The right sidebar contains the CodeGuide logo, login and registration fields (Email address, Password, log in, sign up), and a 'Recent posts' section showing a 'java' post with a 'Special title treatment' and an 'Answers' button.

CodeGuide About us Search for questions Filter posts by Create account

java

**Special title treatment**  
With supporting text below as a natural lead-in to additional content.

Answers

C/C++

**Special title treatment**  
With supporting text below as a natural lead-in to additional content.

Answers

CodeGuide

Email address  
Enter email

Password  
Password

log in

Don't have account ? [sign up](#)

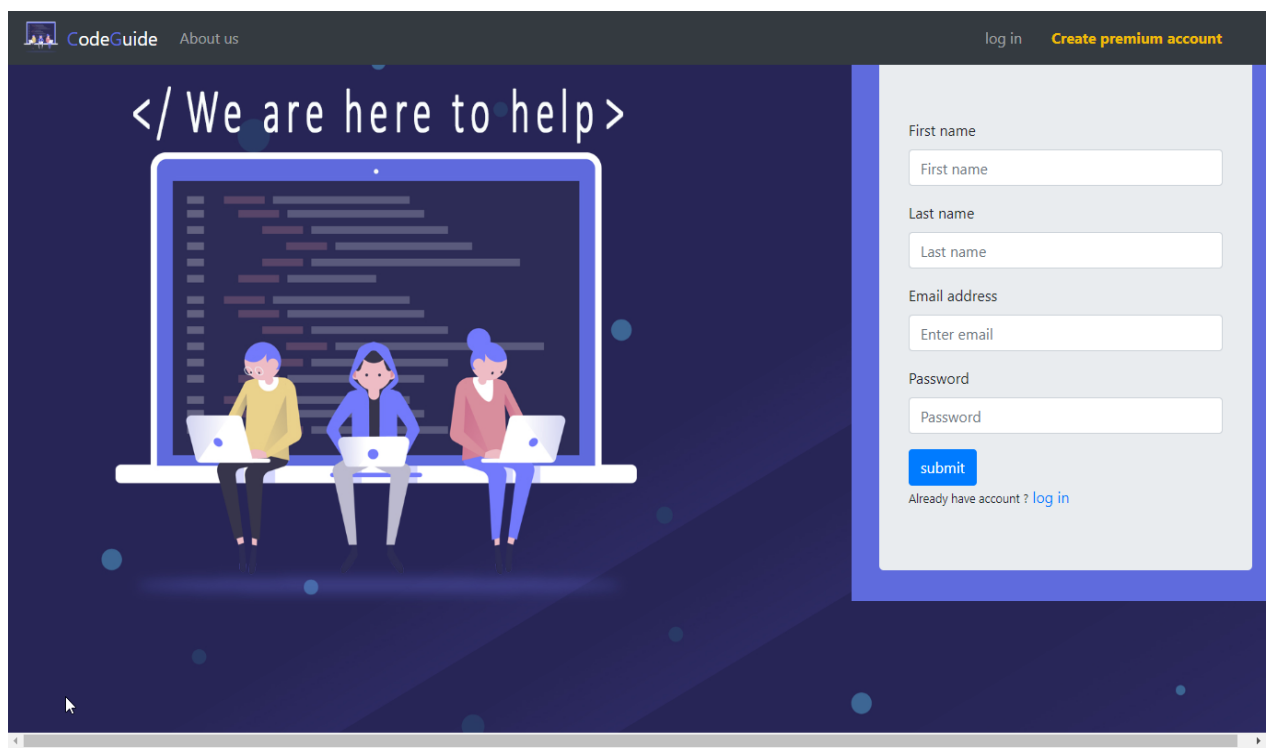
Recent posts:

java

**Special title treatment**  
With supporting text below as a natural lead-in to additional content.

Answers

## Sign-up Page:



The screenshot shows the CodeGuide sign-up page. The header includes the CodeGuide logo, 'About us' link, 'log in' link, and 'Create premium account' link. The main content area features a large illustration of three people sitting at a desk with laptops, with the text '</ We are here to help >' above them. The right sidebar contains the sign-up form with fields for First name, Last name, Email address, and Password, a 'submit' button, and a 'log in' link for existing users.

CodeGuide About us log in Create premium account

</ We are here to help >

First name  
First name

Last name  
Last name

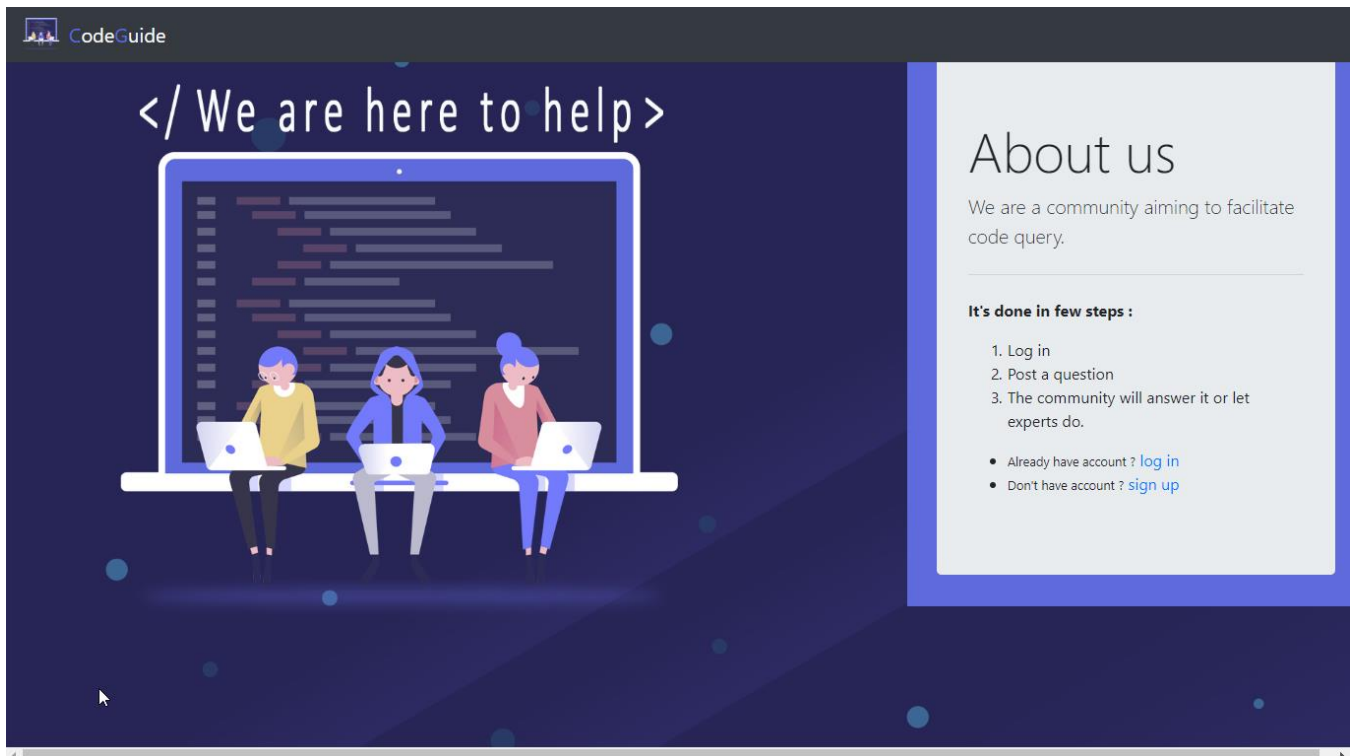
Email address  
Enter email

Password  
Password

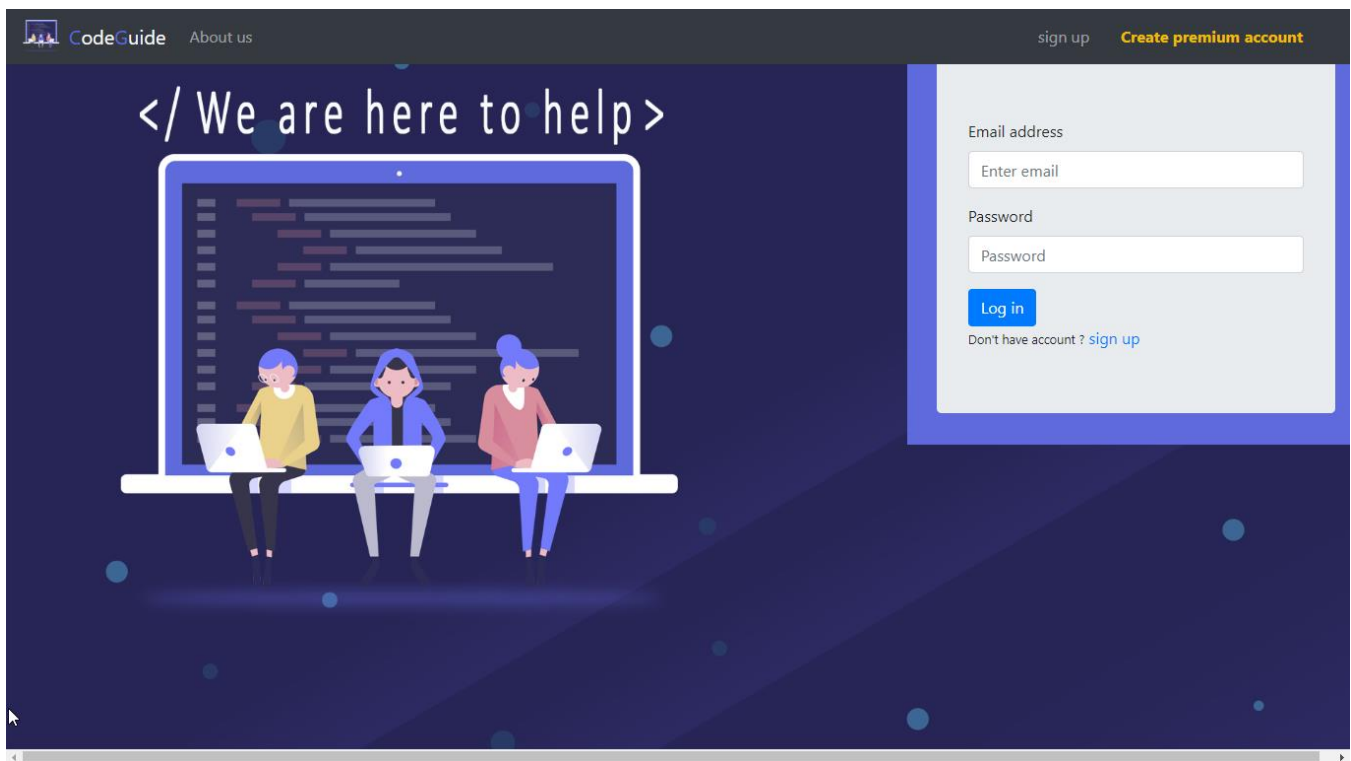
submit

Already have account ? [log in](#)

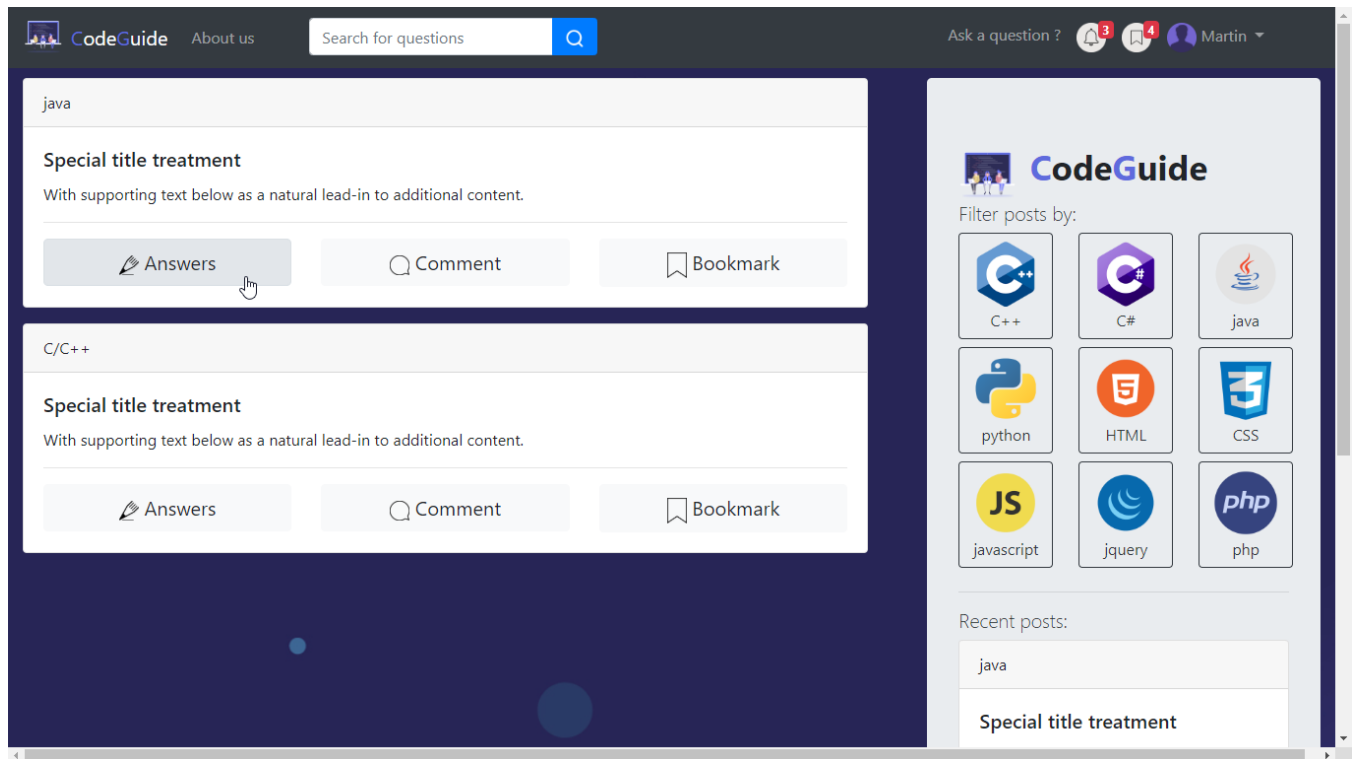
## About-us Page:



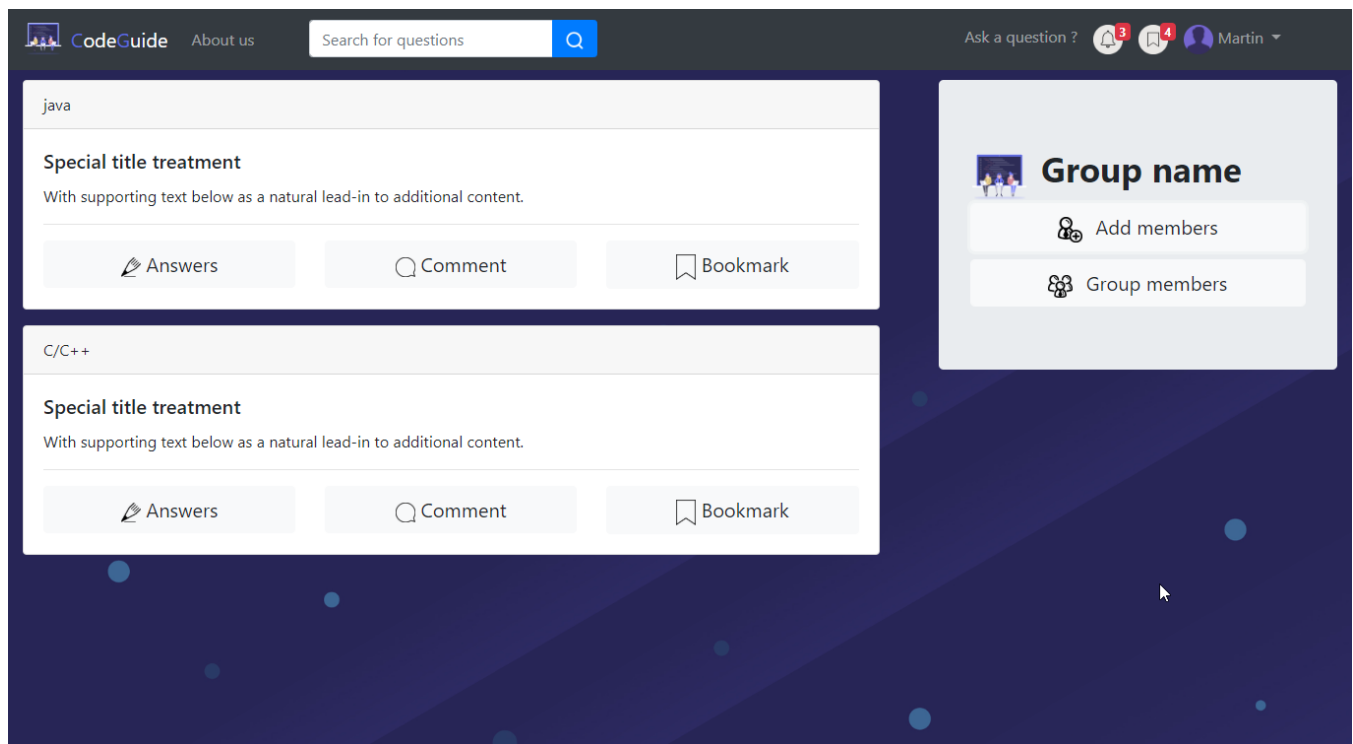
## Log-in page:



After login page (view questions):



Group page:





Ask a question :

The screenshot shows a 'Your question' modal form overlaid on the CodeGuide website. The form includes a dropdown menu for 'programming languages' with a 'Choose...' option. Below this is a large text input field with the placeholder 'put your question here'. At the bottom of the form, there are two buttons: 'Ask community' and 'Ask specialist'. To the left of these buttons are the labels 'Upload' and 'Choose file', and to the right is a 'Browse' button. The background of the website is visible, showing a sidebar with a search bar and a main content area with various programming language icons (C#, java, python, HTML, CSS, javascript, jquery, php) and a 'Recent posts' section.

Question page(with commenting):

The screenshot shows the CodeGuide question page. At the top, there is a search bar with the text 'Search for questions' and a magnifying glass icon. Below the search bar, there is a question card for 'java'. The card has a 'Special title treatment' and a 'With supporting text below as a natural lead-in to additional content.' section. Below this, there are two buttons: 'Comment' and 'Bookmark'. The question is attributed to 'Omar Hesham'. Below the question card, there is a 'Helpful' button. The right sidebar of the page shows the CodeGuide logo, a 'Filter posts by:' section with various programming language icons (C++, C#, java, python, HTML, CSS, javascript, jquery, php), and a 'Recent posts:' section with a 'java' post and a 'Special title treatment' section.

## Profile page :

The screenshot displays the CodeGuide profile page. The top navigation bar includes the CodeGuide logo, an 'About us' link, a search bar with the placeholder 'Search for questions', and a user profile section for 'Martin' with notification and bookmark counts. The main content area features two question cards. Each card has a language tag ('java' and 'C/C++'), a 'Special title treatment' section with supporting text, and three interactive buttons: 'Answers', 'Comment', and 'Bookmark'. The right sidebar contains the CodeGuide logo and four navigation buttons: 'Create group', 'My groups', 'Test yourself', and 'Boost your knowledge'.

CodeGuide About us Search for questions Ask a question ? 3 4 Martin

java

**Special title treatment**  
With supporting text below as a natural lead-in to additional content.

Answers Comment Bookmark

C/C++

**Special title treatment**  
With supporting text below as a natural lead-in to additional content.

Answers Comment Bookmark

CodeGuide

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Test yourself

Boost your knowledge