5CCS2SEG Lab Project
Question-Answering Forum System Design Documentation

1.1 Brief

This document aims to explain the final design of the system and will act as a guide to a user unfamiliar to the project. It will outline the design through diagrams and provide adequate explanation for the user's comprehension of the project.
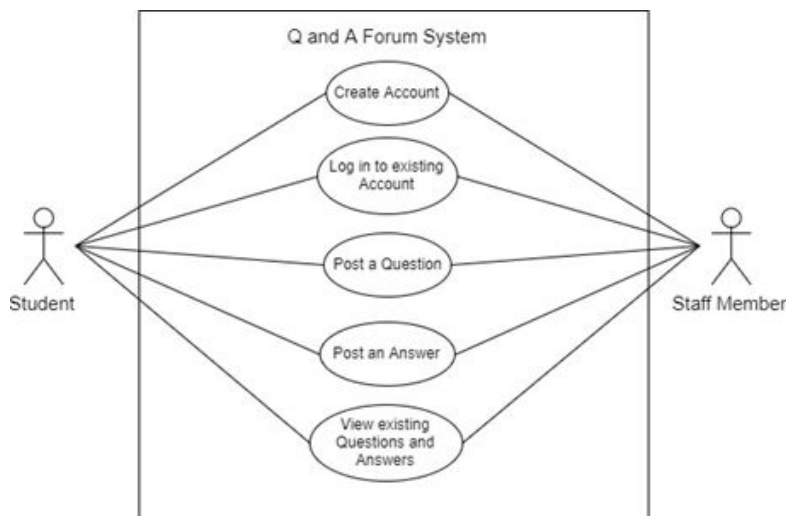
1.2 Use Case Diagram

Fig. 1

The use case diagram (Fig. 1) describes a set of actions (**use cases**) that the system can perform in collaboration with the user (**actors**). Each use case provides some observable and valuable result to the user.

1.2.1 Use Case Descriptions

Use case Name	Create Account
Goal in context	A student or staff member creates a new account from which they can access the forum
Preconditions	The user must enter valid and unique login credentials that do not already exist
Successful end condition	A new account is created for the user

Failed end condition	The account is not created for the user
Actors	Student or Staff Member
Trigger	The user goes to Register to fill in details and clicks the Sign Up button to create account.

Use case Name	Log in to Existing Account
Goal in context	A student or staff member logs into an account they have previously created
Preconditions	The user must enter their valid login credentials
Successful end condition	The user is logged in and can now access the forum
Failed end condition	The user is not logged in and is prompted to re-enter their credentials
Actors	Student or Staff Member
Trigger	The user goes to Login and keys in Username and Password and click Login.

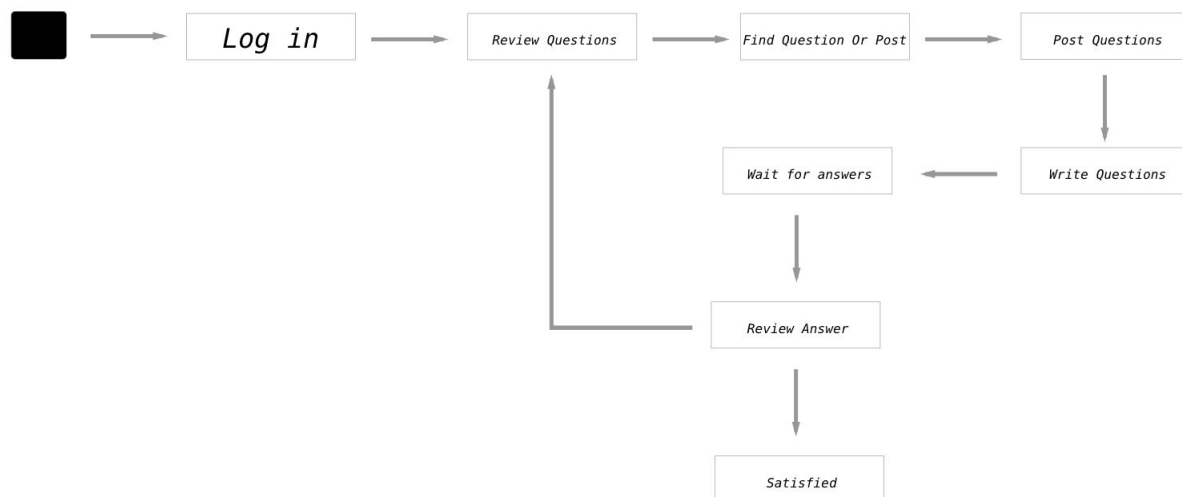| Use case Name	Post a Question
Goal in context	The user posts a question to the forum
Preconditions	The user must be logged into their account
Successful end condition	The question is successfully posted
Failed end condition	The question is unable to be posted by the user
Actors	Student or Staff Member
Trigger	The user clicks on New Question, fills relevant boxes and clicks Post button.

Use case Name	Post an Answer
Goal in context	The user posts an answer to a question on the forum
Preconditions	The user must be logged into their account and they must select an existing question

Successful end condition	The answer is successfully posted
Failed end condition	The answer is unable to be posted by the user
Actors	Student or Staff Member
Trigger	Once the user clicks on the question title, fill the answer text box in the subsequent page and click Post button.

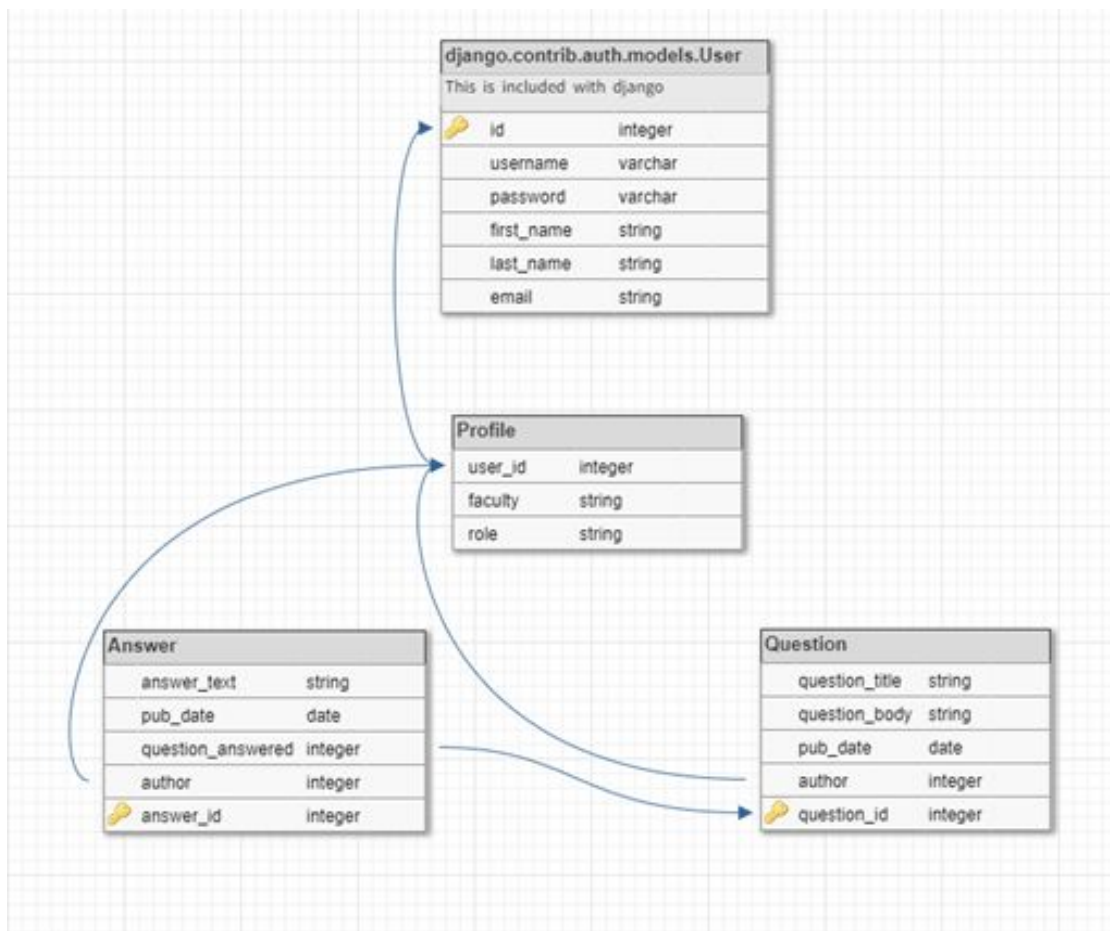| Use case Name	View existing Questions and Answers
Goal in context	The user can view previously posted questions and answers
Preconditions	The question/ answer to view has already been posted by another valid user
Successful end condition	The user can view a question/answer
Failed end condition	The user is unable to view a question/answer
Actors	Student or Staff Member
Trigger	The user clicks on existing titles in Home to view the respective discussion.

1.3 Activity Diagram

The Activity diagram(Fig. 2) showcases how a user interacts with our question and answer site. It takes them from the user journey of how they should approach its use.

(Fig. 2)

1.4 Database Diagram

The database diagram(Fig. 3) illustrates the attributes of entities and their relationships with one another. It offers a visualization of the database structure and serves as a blueprint for the structure of the project.

(Fig 3)