

Project Report

On

Q & A

(An Android Application)

Submitted by

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CERTIFICATE

This is to certify that the project work titled “*Q & A*” submitted by
Neelima Devi G in partial fulfilment of the requirements of the award of Bachelor of
Technology in Computer Science and Engineering for the year 2022-2023 carried out
the work under the supervision and guidance.

E SUSMITHA
Project guide
RGUKT RK Valley

N SATHYANANDAM
Head of The Department
Computer Science and Engineering

DECLARATION

I *Neelima Devi G*, hereby declare that the project report entitled.

“*Q & A*” done by me under the guidance of madam *Susmitha* is submitted in partial fulfilment for the degree of the Bachelor of Technology in Computer Science and Engineering during the academic session 2021 – 2023 at RGUKT R.K. Valley.

We also declare that this project is a result of our own effort and has not been copied or imitated from any source. Citations from any websites are mentioned in the references.

The results embodied in this project report have not been submitted to another university or any institute for the award of any degree or diploma.

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible and whose constant guidance and encouragement crown all the efforts success.

I am extremely grateful to our respected Director, Prof. K. SANDHYA RANI for fostering an excellent academic climate in our institution. I also express my sincere gratitude to our respected Head of the Department Mr. N SATHYANANDAM for his encouragement, overall guidance in viewing this project a good asset and effort in bringing out this project.

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My sincere thanks to all the members who helped me directly and indirectly in the completion of project work. I express my profound gratitude to all our friends and family members for their encouragement.

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ABSTRACT

We worked on a project entitled “*Q & A*”. A query and response Software is a type of programme that is designed to respond to inquiries posted on online forums. Large organisations typically install these with the goal of creating a platform where people may ask questions about their particular fields. From tiny to large, or from subject to subject, it varies. Many of these platforms could either limit access to their employees or make it open to the public.

Less security, a less effective search process, and the possibility of fake answers are drawbacks of the current systems. If certain websites or programmes are not publicly accessible, one can still access them via another person's computer or access publicly accessible ones and post irrelevant replies. On these platforms, people sometimes even lie, and there may not be a checker to compare the responses.

Now, another person may want similar responses to their questions that could already provide the answer. The first issue that is addressed is ensuring that there is more security and safety. Second, assisting users in finding answers to comparable inquiries that may already have the answer to their own inquiry and may even highlight other crucial information that is worth knowing.

INTRODUCTION

Description

Our project, "Q&A (question & answers)", is a website where individuals may ask questions and get answers. Every piece of content on the website is user-generated, which means it was written, updated, and arranged by website users.

Purpose

The site's main function is as follows: You can search for questions to find answers or post answers to inquiries. Having stated that, the main question regarding information gathered from a large number of people is if it is factual or, at the very least, accurate.

Scope

- Empowers people to share and grow the world's knowledge.
- People come to Q &A to ask questions about any subject.
- Read high quality knowledge that's personalized.
- Share their own knowledge with others.

Literature Review

Dart

Dart is a programming language designed by Lars Bak and Kasper Lund and developed by Google. Dart is an open-source, general-purpose, object-oriented programming language with C-style syntax developed by Google in 2011. The purpose of Dart programming is to create a frontend user interfaces for the web and mobile apps. It is under active development, compiled to native machine code for building mobile apps, inspired by other programming languages such as Java, JavaScript, C#, and is Strongly Typed. Since Dart is a compiled language so you cannot execute your code directly; instead, the compiler parses it and transfer it into machine code.

Flutter

Flutter is a mobile app development platform created by Google. It allows developers to create web, desktop, and cross-platform apps that run on Android and iOS devices. Flutter uses a reactive programming language called Dart, making development faster and easier than traditional methods. In general, creating a mobile application is a very complex and challenging task. There are many frameworks available, which provide excellent features to develop mobile applications. For developing mobile apps, Android provides a native framework based on Java and Kotlin language, while iOS provides a framework based on Objective-C/Swift language.

Intended audience and reading suggestions

The intended audience of this document would be developers, project managers, users, and testers. Anyone with a programming background and some experience with UML can understand this document. The SRS document can be used in any case regarding the requirements of the project and the solutions that have been taken. Here is a brief overview of the document.

1. Overall description of the project.
2. External interfaces requirements
3. System features
4. Other non-functional requirements

OVERALL DESCRIPTION

Product perspective

The software is an updated version to overcome the problems that have occurred with searching questions and getting the information. The software is who is knowledgeable on a specific topic. You query something, it is listened by experts those who have knowledge on the topic and answer the query, and their answer would be right on the context that you have set in the query.

User classes and characteristics

There are mainly 3 users are there:

1. Naive user
2. Sophisticated user
3. Expert

One end-user class will be naive users, who will not know the internal architecture of the Q&A; they can only use the application.

Other user classes can be sophisticated users having some knowledge of the software. They have some knowledge of how to insert, delete, and update software.

Other user classes can be of experts which will have full knowledge of hardware and software as well as their interfaces. The user should know the basics of how to operate the music player. The users with poor internet connectivity will benefit more.

Operating Environment

System requirements:

Operating System should be capable of playing music and have any of mentioned OS installed or installed on “vs code” is enough to run the software.

Operating System:

It supports Microsoft Windows like Windows 7, Windows XP, Windows Vista, Mac OS, and Linux. Simply it can work the OS which are capable of running java programs.

Design and Implementation constraints

Software application needs to have an operating system that has enough performance. If the operating system does not have enough hardware resources available for the application. Then, there may be scenarios where the application does not work as intended or even at all. Simply all it need is installed “vscode” in the system with any type of OS.

While deploying the software at different platforms, the user must have to install all SDK files. At some point user may face volume issues on switching audio files which has rectified. In order to run jar file of this project system JDK should consist of java SDK or else user has to download it manually and also has to specify the path in the VM configurations of the Project File.

Assumptions and Dependencies

Some software uses high cost for implementing the system and the client also agreed to that. It is assumed that the client won't change the decision in the next phases. We used various online open-source materials for most of our project work. We integrated various components from other projects to make the application work as a whole.

Software Features

Functional Requirements

Functional requirements show the operation and activities the system must be able to perform. The functional Requirements of Users.

- Secure Access
- It allows Multiple user access at a time.
- It allows to use and compute basic operations.
- It allows to Note Making the Important information.
- It Allows to practise the Objective Questions.

Non-functional Requirements

Usability

The system is designed with completely automated process hence there is no or less user intervention.

Reliability

The System is more reliable because of the qualities that are inherited from the chosen platform VS Code.

Performance

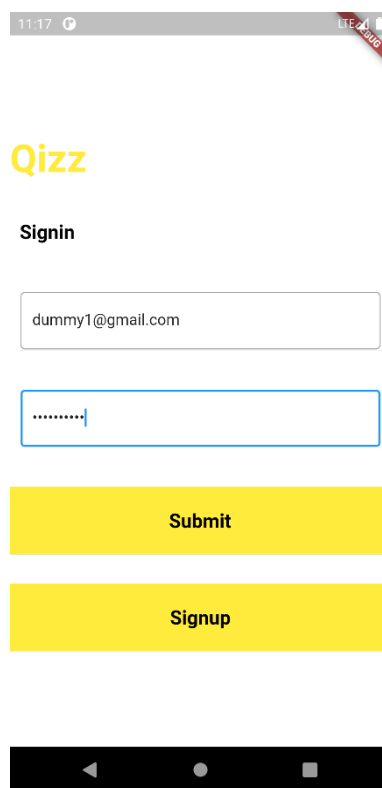
This System is developing in the high-level languages and using the advanced front-end and back-end technologies it will give response to the end user on client System with in very less time.

Supportability

The System is designed to be the cross platform unportable. The system is supported on wide range of hardware and any software platform. The System is designed to be test the scalability by adding additional load to the website.

External Interface Requirements

User Interfaces



Initial UI: This is the view of application whenever it is launched.

Compliant Management System

Signup

Signup: The signup page will be displayed which consists of mail id, name and password.

Sign in:

if it is new account then after signup this above sign page will display here, we have to enter mail and password then we need to submit.

Qizz

Signin

11:23 Q & A

My question?
My Answer.

9th question
dfbtykjejtyhrdger

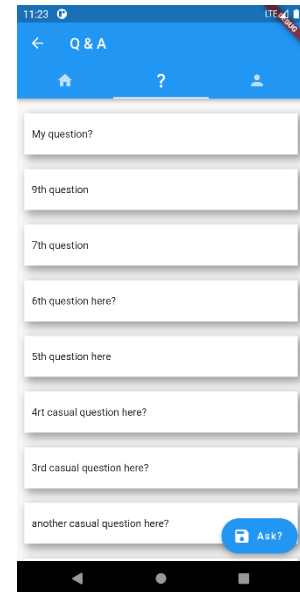
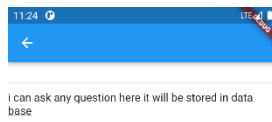
7th question
nrtmytjngfbdthnherbgfmrne56hfdbt
vie65thbtvbnrow45arever

Homepage:

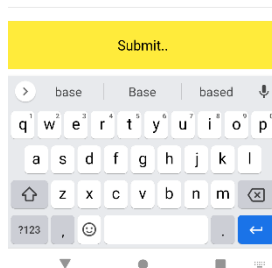
This will be displayed after sign in here we can all the questions asked by other users. Along with that recently asked questions will be displayed at top.

Questions and answers by users

Here we answer the questions along with that we can ask our questions here it will show.



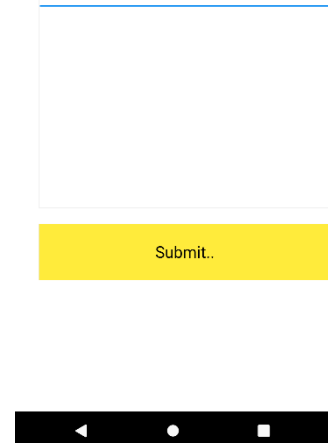
Ask: Here in this page, we can insert our questions and after submit our question.

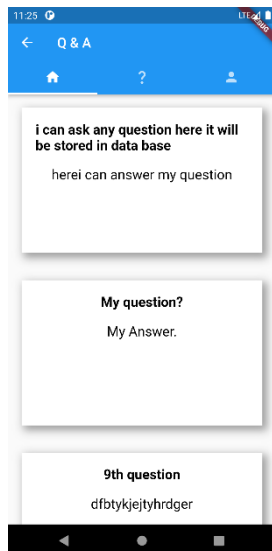


i can ask any question here it will be stored in data base

herei can answer my question

Answer: After submitting the question even the user can answer the question.



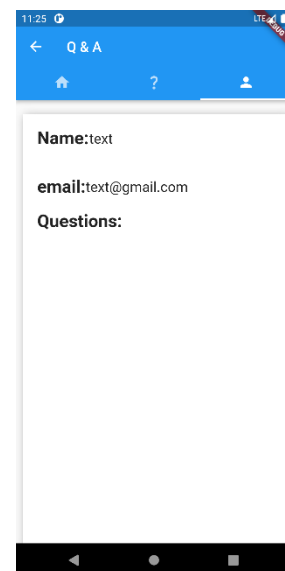


Question and answers

Once we submitted our question, we can see it on top which is we answered recently. Along with that we can see here all other questions which was asked by other users.

User info or details

In this page we can see user details like name mail along with those questions answered by the user.

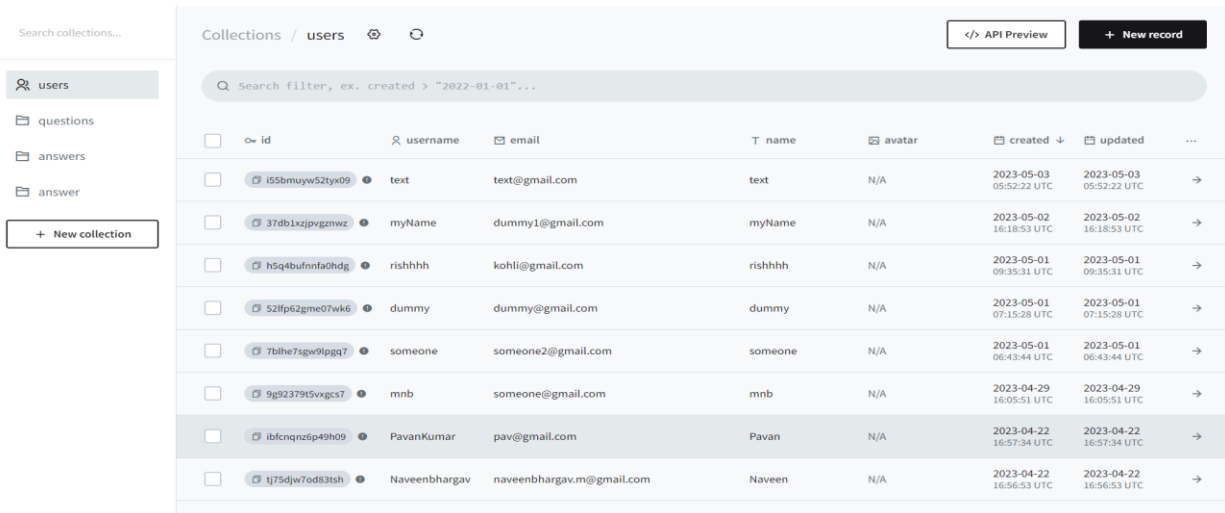


Database Connection

```
C:\Users\vasav\Desktop\pocketbase_0.12.3_windows_amd64>pocketbase.exe serve
2023/05/03 11:15:18 Server started at http://127.0.0.1:8090
  REST API: http://127.0.0.1:8090/api/
  Admin UI: http://127.0.0.1:8090/_/
```

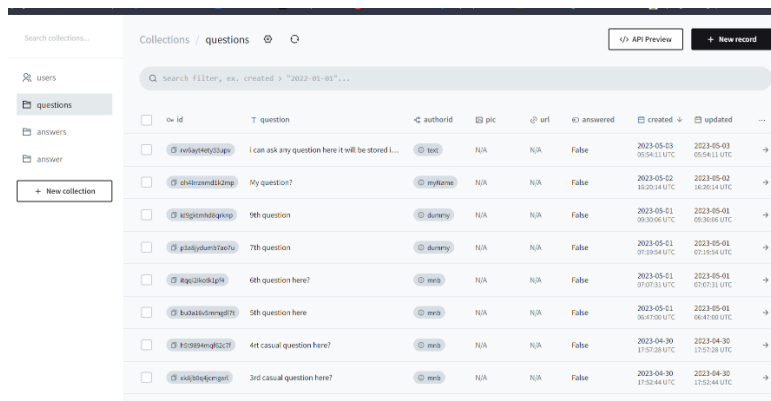
In order to connect with the data base, we have to start the pocket base (a database software) to connect our data to application which usually stores in tables.

Data base Structure



<input type="checkbox"/>	id	username	email	name	avatar	created	updated	...
<input type="checkbox"/>	i55bmuyw52tyx09	text	text@gmail.com	text	N/A	2023-05-03 09:52:22 UTC	2023-05-03 09:52:22 UTC	→
<input type="checkbox"/>	37db1xjzpgvzmwz	myName	dummy1@gmail.com	myName	N/A	2023-05-02 16:18:53 UTC	2023-05-02 16:18:53 UTC	→
<input type="checkbox"/>	h5q4bufnfa0hdg	rishhhh	kohli@gmail.com	rishhhh	N/A	2023-05-01 09:35:31 UTC	2023-05-01 09:35:31 UTC	→
<input type="checkbox"/>	52flp62gme07wk6	dummy	dummy@gmail.com	dummy	N/A	2023-05-01 07:15:28 UTC	2023-05-01 07:15:28 UTC	→
<input type="checkbox"/>	7blihe7sgw9lpgq7	someone	someone2@gmail.com	someone	N/A	2023-05-01 06:43:44 UTC	2023-05-01 06:43:44 UTC	→
<input type="checkbox"/>	9g92379t5vxcst7	mnib	someone@gmail.com	mnib	N/A	2023-04-29 16:05:51 UTC	2023-04-29 16:05:51 UTC	→
<input type="checkbox"/>	ibfcncnz6p49h09	PavanKumar	pav@gmail.com	Pavan	N/A	2023-04-22 16:57:34 UTC	2023-04-22 16:57:34 UTC	→
<input type="checkbox"/>	tj75djlw7od83tsh	Naveenbargav	naveenbargav.m@gmail.com	Naveen	N/A	2023-04-22 16:56:53 UTC	2023-04-22 16:56:53 UTC	→

User data table: This table stores the data of users like id, username, email, name.



<input type="checkbox"/>	id	question	authorid	pic	url	answered	created	updated	...
<input type="checkbox"/>	rx6ay6tdy33p	i can ask any question here it will be stored i...	text	N/A	N/A	false	2023-05-03 09:54:11 UTC	2023-05-03 09:54:11 UTC	→
<input type="checkbox"/>	dh8rczndd32np	My question?	myName	N/A	N/A	false	2023-05-02 16:26:44 UTC	2023-05-02 16:26:44 UTC	→
<input type="checkbox"/>	kt9cmtd9p	5th question	dummy	N/A	N/A	false	2023-05-01 09:36:05 UTC	2023-05-01 09:36:05 UTC	→
<input type="checkbox"/>	pl3dykm37acu	7th question	dummy	N/A	N/A	false	2023-05-01 07:15:44 UTC	2023-05-01 07:15:44 UTC	→
<input type="checkbox"/>	8qz2hok3p4	6th question here?	mnib	N/A	N/A	false	2023-05-01 07:07:31 UTC	2023-05-01 07:07:31 UTC	→
<input type="checkbox"/>	ku4x6dcmngp7h	5th question here	mnib	N/A	N/A	false	2023-05-01 06:47:00 UTC	2023-05-01 06:47:00 UTC	→
<input type="checkbox"/>	10399cmg3c7f	4th casual question here?	mnib	N/A	N/A	false	2023-04-30 17:57:28 UTC	2023-04-30 17:57:28 UTC	→
<input type="checkbox"/>	v4x3bzqzmgp4	3rd casual question here?	mnib	N/A	N/A	false	2023-04-30 17:52:44 UTC	2023-04-30 17:52:44 UTC	→

Questions table: This table contains questions entered by users and with the users data like User id , question, URL, answered, when it is created and updated.

Search collections...

Collections / answers

Search filter, ex. created > "2022-01-01",...

<input type="checkbox"/>	id	questionid	field	created	updated	
<input type="checkbox"/>	id6enct5gspj	id6nqyary3kzv	["v2876u2a70shd9p"]	2023-05-03 05:54:59 UTC	2023-05-03 05:54:59 UTC	→
<input type="checkbox"/>	id6wng7chx4d	id64kzrmcd12np	["b3jpdgk4ufubhki"]	2023-05-02 16:20:30 UTC	2023-05-02 16:20:30 UTC	→
<input type="checkbox"/>	id6kxh3cdd7jk	id6gpktrhdtyknp	["*+11951-a7yrlp4d"]	2023-05-01 09:20:12 UTC	2023-05-01 09:20:12 UTC	→
<input type="checkbox"/>	id675q7z3xwobsk	id63blydumb7act7u	["2v4kuehg9pauha"]	2023-05-01 09:20:12 UTC	2023-05-01 09:20:12 UTC	→
<input type="checkbox"/>	id6xobab8t8aaz	id63blydumb7act7u	["2p4kuehg9pauha"]	2023-05-01 09:20:12 UTC	2023-05-01 09:20:12 UTC	→
<input type="checkbox"/>	id64supp4btyqiv	id6ng7bent3p4	["7yuewv43d4b2g","x23r59d435p4g4"]	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→
<input type="checkbox"/>	id6wmy8t8t0ia	id6ng7bent3p4	["dkt3y1an3akus","vfbuck37u5cuy6","mc188kag66y4b"]	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→
<input type="checkbox"/>	id63nq7q4b70w	id63blydumb7act7u	["3j4j3u49g1ay99","23712b4v4k4u4t"]	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→

Answers table: This table contains answers id, question id, field.

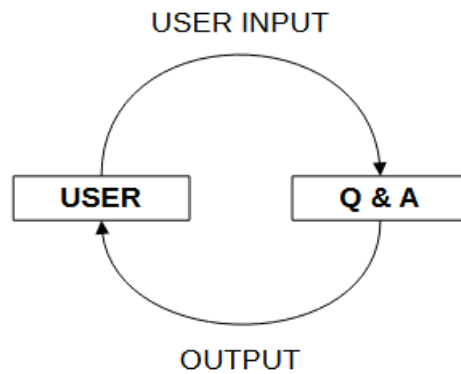
Search filter, ex. created > "2022-01-01",...

<input type="checkbox"/>	id	answer	author	created	updated	
<input type="checkbox"/>	id6v2876u2a70shd9p	herei can answer my question	id6test	2023-05-03 05:54:59 UTC	2023-05-03 05:54:59 UTC	→
<input type="checkbox"/>	id63p4dgy4er5p4d	My Answer.	id6myname	2023-05-02 16:20:30 UTC	2023-05-02 16:20:30 UTC	→
<input type="checkbox"/>	id6sz095zcm7p4g8	dftbyk3y4ndg8	id6dummy	2023-05-01 09:20:12 UTC	2023-05-01 09:20:12 UTC	→
<input type="checkbox"/>	id62v4kuehg9pauha	ntmny6p6bct4nherbgfmmc5h3btye65thbtybneurgw45grever	id6dummy	2023-05-01 09:20:12 UTC	2023-05-01 09:20:12 UTC	→
<input type="checkbox"/>	id6h2899yct73x0ia	bnvbgdthtyrlytdy	id6dummy	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→
<input type="checkbox"/>	id62p4kuehg9pauha	answer_gdchfawchfjdbvqish	id6dummy	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→
<input type="checkbox"/>	id6x23d4k459g4	h2cch h2hch h2bclhch dhch h2c4bc dh2c	id6mrk	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→
<input type="checkbox"/>	id67yuewv43d4b2g	some answer for the 6th question here and we can read it now.	id6mrk	2023-05-01 07:08:01 UTC	2023-05-01 07:08:01 UTC	→

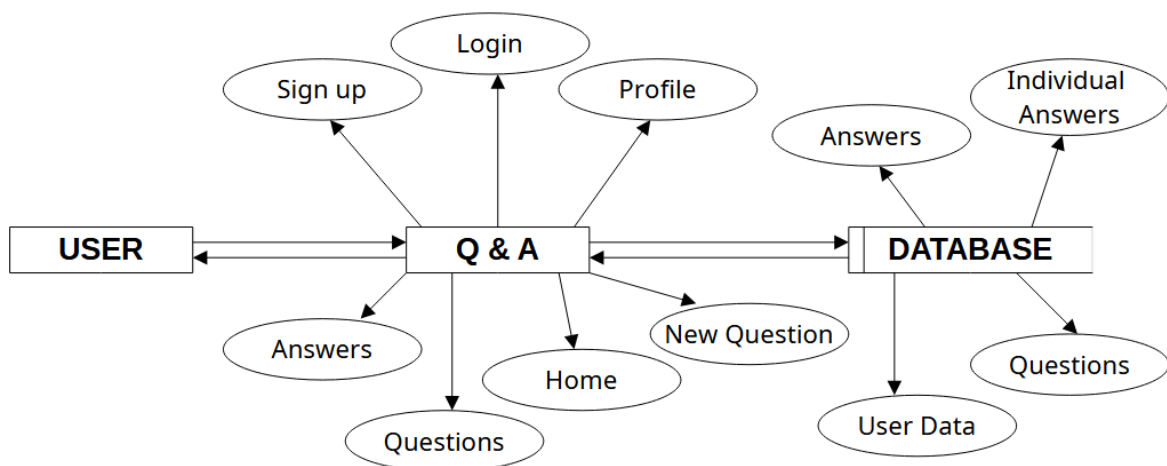
Answer table: This answer table contains answers entered by users with the details like user id Answer,.

System Design

Data Flow Diagram

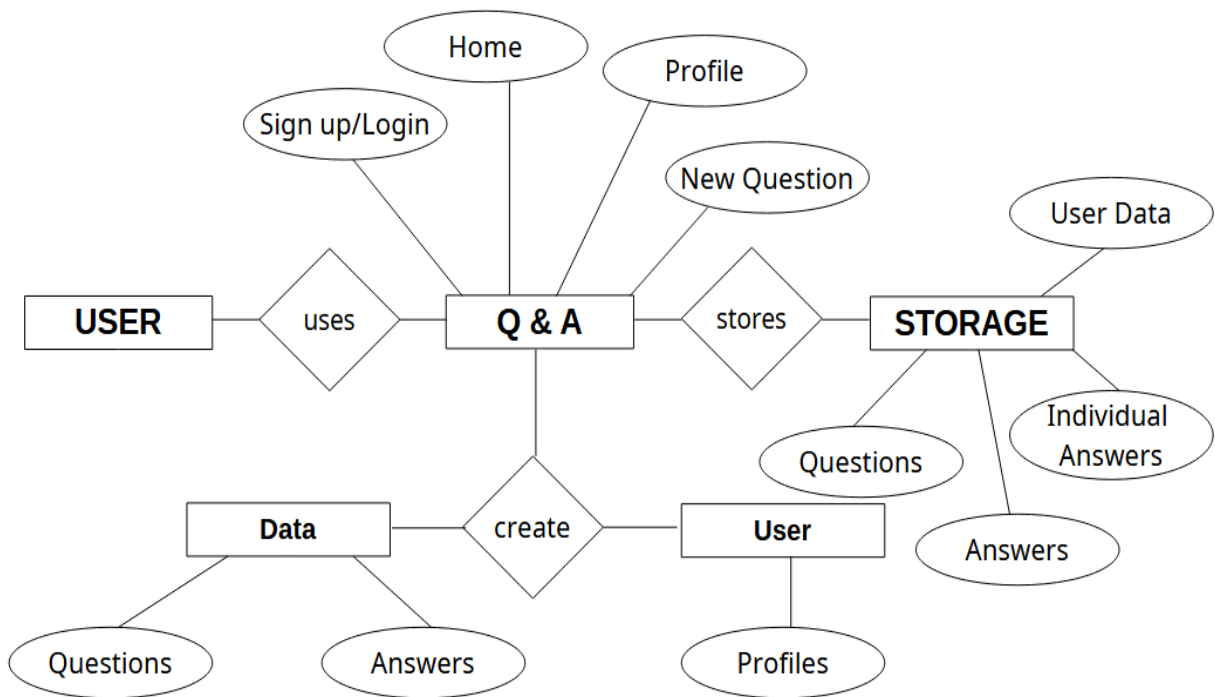


Level-0 Diagram

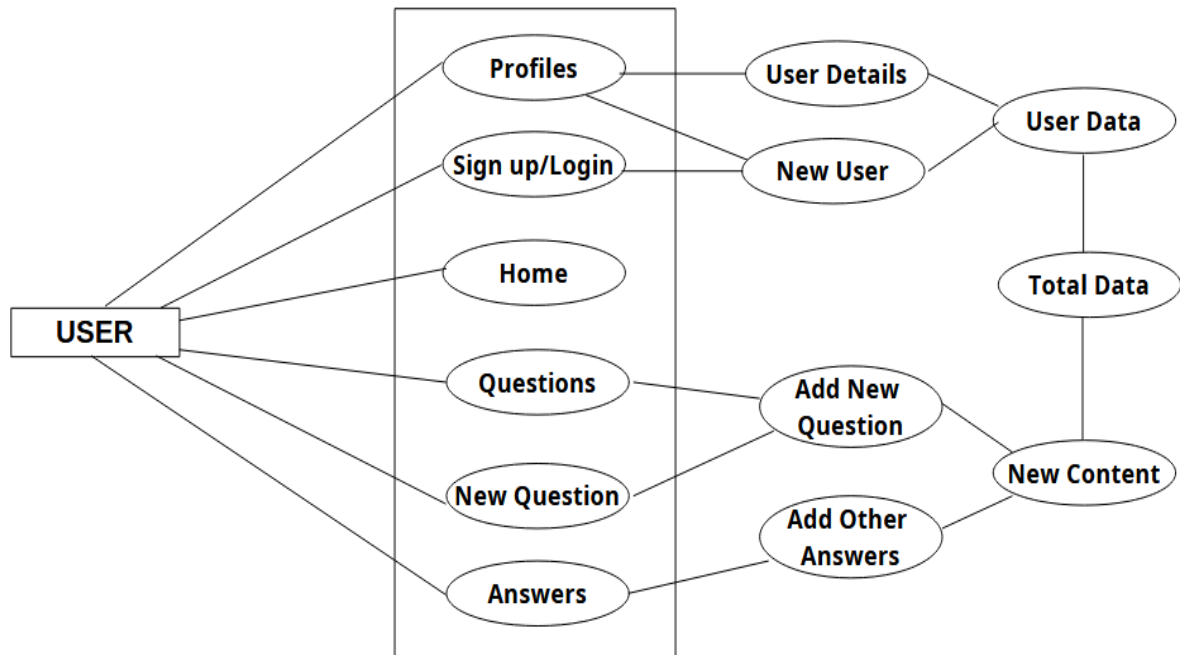


Level-1 Diagram

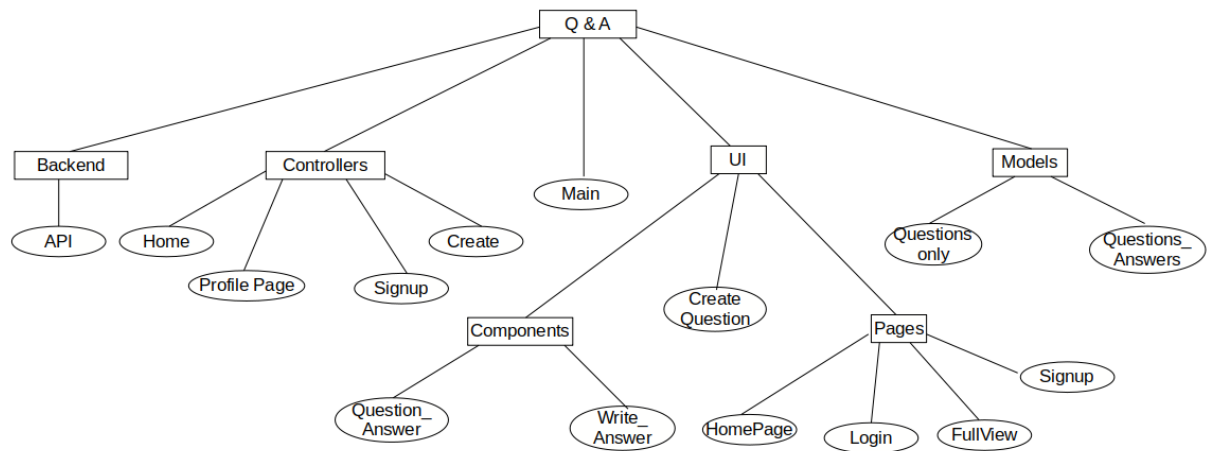
ER Diagram



UML Diagram



File Structure



Conclusion:

Q & A is an application provides a user friendly UI that allows users to easily ask and answer questions. The application lags advanced features tags, voting's, categories, or topic suggestions which would help to organize the content better and improve the search experience.

Future Plans

- Enhanced personalization: Q&A applications may use machine learning and AI algorithms to tailor content and recommendations to individual users based on their browsing history, interests, and preferences.
- Integration with social media: Q&A websites may become more integrated with social media platforms, allowing users to share content and engage with others easily
- Mobile optimization: With more and more people accessing the internet via mobile devices, Q&A websites may focus on improving their mobile user experience and developing dedicated mobile apps.
- Audio and video content: Q&A websites may incorporate more audio and video content, as users increasingly consume content in these formats.

References:

- <https://www.flutter.dev>
- <https://dart.dev>
- <https://pocketbase.io>
- Youtube tutorials