

IITB Q&A

CS 699: Lab Report

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Chapter 1

Introduction

The era of mobile technology changed from windows to the android app. The websites are vanishing and the android applications are emerging. Now its the time to change from crowded platform to **IITB Q&A** android application software which is a miniature version of "Quora" but limited to institute, where your queries will be resolved by campus experts in their respective field. It helps not only in resolving query, but also helps in getting the information of interested topics/question by just one click i.e follow.

Our multipurpose program is considering the user as either a student or a faculty. It acts as a college assistant and gives an overview about the campus to a newbie like the information related to department, faculties, subjects, projects, ongoing research and many academic related queries.

User will be notified for the following actions if someone:

- answered user's question
- upvoted or downvoted user's answer

Students can get suggestions from faculties of other department (whom you never meet) too and helps in interacting with experts in different domains. The application gathers user information like :

- Ldap
- Department
- Degree
- Specialization
- Name

- Gender
- Area of interest

This application requires users to register before they can login. It is necessary to login before you use the application. The user can browse through the different category of questions. Once a student/faculty becomes a user, he/she can post/follow questions. Users can get news feed for questions on followed topics and also questions asked by the user itself.

Practical **usage and feature**

- IITB students/faculty will be able to view, post and answer questions on the forum
- The questions on the forum will be tagged/identified by certain topics. Each question must be tagged with atleast a single topic.
- Users can follow topics on the forum during signup
- Each answer will also be open to criticism in the form of upvotes and downvotes
- The total votes of each user will be part of the user's personal information
- A user will be notified when another user votes his/her answer or answers a question posted by him/her

Chapter 2

Motivation

The main vision of this application is to build a bridge between newbie and experts in order to learn and explore different genres.

- Newly admitted students often have doubts/queries regarding subjects to choose & field to explore but there is no forum to answer these queries.
- A student can contact few of the seniors from their department but not all, their might be an area that student want to explore but that belongs to other department.
- Not all queries need to be answered individually and many a times it is not known who in the campus might know the solution.
- Even previously admitted students don't know the ongoing research work in their department let alone any other department.

There is a serious requirement for a Q&A forum working on the institute (or at least department) level. So we propose to build such a forum where students or professors alike can ask or answer questions with ease.

Chapter 3

User Documentation

For hosting the server, keep in mind the following points :

- "api" is the app for our project
- Some initial data has already been provided in `api/fixtures/initial_data.json` whose format is not very hard to understand. One can add more data to this file if need be.
- All the topics to be used for the project have to be hardcoded into `api/fixtures/initial_data.json`
- The url format for making queries to backend are specified in `api/url.py` along with `iitbqa/settings.py`
- The major DB models/tables are specified in `api/models.py`
- Data serializers for these models are provided in `api/serializers.py`
- The major interactive functions with the DB are specified in `api/views.py`
- If there is no data in the DB yet, then execute the following steps in order:
 1. `./manage.py makemigrations`
 2. `./manage.py migrate`
 3. `./manage.py loaddata initial_data.json`
 4. `./manage.py runserver`
- If one wants to erase the current DB and start from scratch, then execute these following commands in the main project-

1. `find . -path "*/migrations/*.py" -not -name "__init__.py" -delete`
2. `find . -path "*/migrations/*.pyc" -delete`
3. `rm db.sqlite3`

- Install the postman app for testing your backend code.

For running the application, perform the following steps in order:

1. Launch AndroidStudio
2. Download emulator image for the device one wants to use
3. Run the project using this image

To use the app, keep in mind the following:

- There is no provision provided in case the user forgets his password, so always remember your password
- The signup page asks the user for information along with a list of topics to subscribe
- The feed of the user displays all questions with any tagged topic being a subscribed topic for the user as well as the questions which are asked by the user
- The post question page can be used to ask a question
- The user can post answer on a question and upvote/downvote some existing answer at most once
- The notifications page displays whether some user has answered a question asked by you or upvoted/downvoted your answer
- The personal page displays the logged in user's info along with the cool metric of totalvotes gather by the user

Chapter 4

Conclusion

- This project was a first experience for us in the android application field; hence it possesses much importance in our learning. We learnt basics of android application development using Android SDK Django during our course project. We came across important documents of projects and got ideas about importance of documentation.
- As the project evaluation follows the proper way, it was an experience of systematically going through the project phases, planning the project and implementing the same.
- **IITB Q&A** is a type of forum which facilitates students/faculty to raise their queries and get it answered by expert.
- From this project we came to know how to work with a team in deadline. We came to know what to do and what not to do to make our project unbeatable. It also gives us benefits to understand how real worlds projects can be carried out.
- Overall it was a great learning experience.