



FEASIBILITY REPORT

For

Duty Normalizer

Prepared by

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1. Problem Statement

The client seeks a mobile application that automates the task of allocating duties to Students and Faculties. This application upon request assigns duty in such a way that the workload is evenly distributed. Additionally, we can add details of new people and generate task reports. The system also allows the admin to reallocate the duty in a normalized manner.

2. Proposed Solution Outline

We plan to develop a mobile application for the client that uses a sorted database that reorganizes itself for each operation and selects the required number of people from the sorted database. The database resets the work hours of all the members to zero at the start of each academic year.

2.1. Admin Dashboard

The admin has an interactive dashboard with the following sections:

- (i) **Add people to each category:**
The admin can add multiple people at once or a single person by entering the relevant details of every person to be. All newly added people have their working hours set to zero.
- (ii) **Assign Duties:**
Duty details must be entered along with the number of people required for each category. Users in each category are assigned tasks by retrieval from the database and their work hours are increased accordingly.
- (iii) **Re-evaluate an allocation:**
This section allows administrators to reassign the task if the person already assigned the task is unavailable. The administrator must enter the details of the duty to be re-evaluated and the number of unavailable members along with their names. The Administrator will assign the duty to the new person and increase/decrease work hours accordingly.
- (iv) **View Duty reports:**
Admins need to enter task details and can download the list of people to whom that particular task is assigned.
- (v) **Delete members:**
The administrator enters the details of the members to be removed and those members are removed from the list of members available for task assignment.

3. Economic Feasibility

The application only has an exclusive user (admin) which implies no hosting is required for it, hence there shall be no cost of hosting it in Play Store/App Store.

The faculty data in each department must be stored in Cloud. Since we plan to use the free tier of Cloud Firebase (which offers 1GiB storage along with 20,000 reads and writes per day which will be sufficient for our case) the storage will also be cost-free. If the storage requirements rise above this number, additional storage can be bought at \$0.108 per GiB.

The app will be free to use for every user and will save them from allocating paid work time for manually doing the task.

Hence, it is evident that the project is economically feasible.

4. Technical Feasibility

With the wide range of technologies available, the app we are planning to develop is technically doable. We plan on using Flutter as the UI toolkit and SQLite as the database. All the software is freely available to use and does not require extra cost.

With the current experience the team has, we are confident that the team can deliver the app within the given time limit.

5. Operational Feasibility

The ongoing process of selecting students and faculties manually by referring to a database stored in a computer is a more time-consuming and inefficient task. The application automates this process and makes it much faster by just requiring the user to upload the required spreadsheet into the system and enter the required details. The application might require having to create the spreadsheet in a required format which is a task that has to be handled before uploading.

Overall, the project is operationally feasible as it cuts down most of the time-consuming aspects of the current system of selecting people while also improving efficiency.

6. Adoption Feasibility

Currently, the process of selecting faculties and students is done manually and it's so time-consuming, difficult, and confusing. With our application, we can automate the process of selecting students/faculty and the admin can assign tasks easily. It's a very helpful and user-friendly app that saves a lot of time and keeps a record of every task, so it will be taken up by the client.

To make sure that they will use it eventually, we will check the app's usage regularly to track its effectiveness and we will update the app and improve it if we detect any issues or bugs. By this, we can ensure that the user is meeting their needs and using our app eventually. Also, as the current manual process is time-consuming and difficult to do, the users will rely on this app for the work which is so easy to use.