Feasibilty Study report

Software Engineering Laboratory



Notesify

A Student’s Assistant in Learning

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# Document Revision History

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| --- | --- | --- | --- |
| **Revision** | **Author** | **Dates** | **Status and Description** |
| 1 | Rupinder, Rubal & Rajnish | 28-08-2019 | Created Feasibility Study Report Version-1 |
| 2 | Rupinder, Rubal & Rajnish | 24-09-2019 | Modified FSR Version-1 to incorporate suggested changes |

# Group Members Details

## Rupinderjit Kaur

I am a student of B. Tech in Computer Science at Dr. BR Ambedkar National Institute of Technology, currently in my 5th Semester. My major aspiration from this project is to improve my Software Engineering skills. I will mainly focus on the designing and coding parts of the application as my coding skills are good. I will also design the Front-End of the Application and its connection with the database as I have a basic knowledge of the layouts in Android Studio and have also worked with MySQL Database before.

## Rubal Khehra

I am currently pursuing Bachelors of Technology degree in Computer Science and Engineering from Dr. BR Ambedkar National Institute of Technology. Currently, I do not have any experience in android application development but I am excited to learn it. I intend to work on the designing and coding of the application as I have sound knowledge of data structures and algorithms and have good logical reasoning skills. I will focus on making the code as optimum as possible. I also have experience working with Oracle Database henceforth will also contribute to the backend development.

## Rajnish

I am an undergraduate student at NIT Jalandhar pursuing my Bachelors in Computer Science. I have a keen interest in programming with knowledge of the C++ language. My personal goal from this project is to learn about software development principles by implementing this in a real case scenario. I intend to mainly focus on the backend of the application. I will also contribute to the network and security of the application.

# Feasibility Study Report Outline

## Title

The title of the project is the name of our application, i.e., ***Notesify***. The title is so decided as our project focuses on **Notes** and will also **Notify** students about any new study materials posted.

## Abstract

Our project consists of an Android Application that aims to provide a common platform for current students, alumni, and teachers to interact with each other. Here, older students can post the study materials they used to help other students such as any kind of website links, ppts, books, video lecture links, digital copies of handwritten notes, etc. Also, the app will provide a chatting mechanism where any student can put up any query, about which his/her seniors will be notified and anyone can volunteer to help the student. Teachers or any alumni working or doing research in any field can post about their work. Alumni can post about their preparations for any kind of job/post for which they qualified to guide other students. The app will also provide a feature for students belonging to the same class to interact with each other effectively. There will be a polling mechanism through which all the students of a class can vote to make a decision that has to be done collectively by a class as a whole. The Class Representative will be able to see the results of the poll according to which decision can be taken effectively.

## Keywords

* Notes
* Editorial
* Tutorial
* Books
* PDFs
* Links
* Queries
* Poll
* Mentor
* Field of Work
* Java
* Android Studio
* MySQL
* Database

## 

## Description of the Project

This project is an android application to promote the sharing of valuable information among new learners and freshers coming to college. This project will not only support them with academic notes but also guide them and interleave other valuable topics not included in the curriculum. It helps to gather the mind/knowledge of a large number of people belonging to different departments, work field on a single platform. One of the superior features of our project is authenticated access. Verification of users will be done via their email accounts. The rating and comment system aims to minimize the efforts of users in comparing the quality of documents available. The User Interface of this application is simplistic and straightforward. It does not require any prerequisite training to use its features. Users will easily understand the operations of this application within one or two usages. The application aims at providing reviewed content within seconds. Now, the users don’t need to waste their valuable hours searching for the best online material. The desired material is available on a single click. The application can be operated on any latest version android smartphone.

### **Tour of our Application**

#### Login Page

The Login Page will appear every time the application is opened. It will take Email ID and Password of the user as input and Login if credentials are verified. It will then display the Home Page according to the kind of the user. We will also provide the Forgot Password functionality to the user in case he forgets his password. In this case, a Password Reset link will be sent to the verified email account of the user.

If the user is new to our application then he can create a new account, which will open the Registration Page.



#### Registration Page

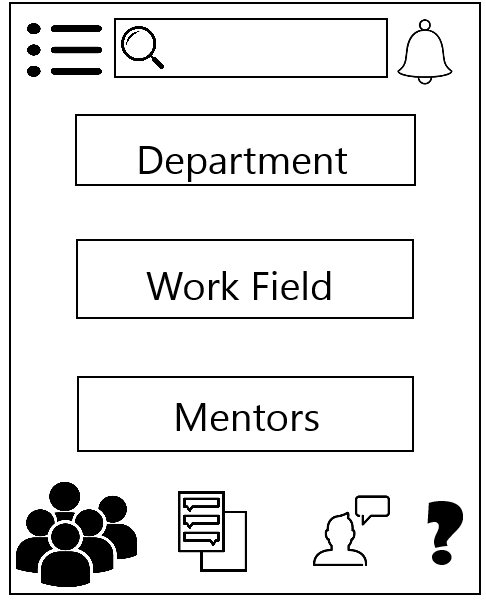
There can be major three kinds of users- Students, Alumni, and Teachers. Each different kind of user will be asked for a different kind of information.

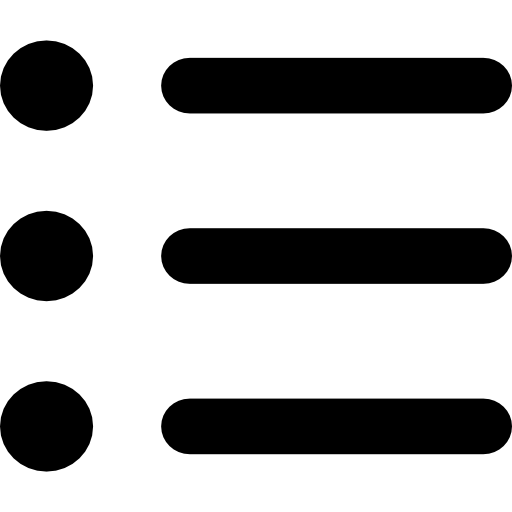
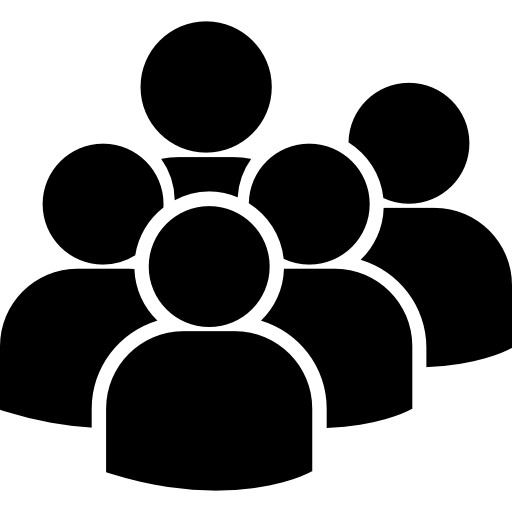
Students will be asked for credentials like- College Name, Course, Education Field, etc. Alumni will be asked for information like- Current Place of Work, Role, Education Field, their Projects, etc. Teachers will also be asked for similar information. It will help us filter out the results for the students searching for guidance in various fields.

#### Home Page

Login Page will direct a user to the Home Page. This is the main page where a student can explore various features of the application.

Components of this page are-



*  - Clicking on this icon will open Options Menu which will include options-
* Edit Profile- Here the user can change his credentials like email id, phone, password, etc.
* Change Status- Here the user can change his mentor status. If a student thinks he/she has gained enough knowledge and experience in any field then he can volunteer to become a mentor.
* Followings- This shows the list of all those mentors who a student follows.
* Followers- If a user is a mentor then this shows a list of all the students who are following him/her.
* Settings- Here the User can change any settings related to the application like Font Size, Background Theme, Notification Settings, etc.
* FAQ- Here a user can read answers for all the Frequently Asked Questions.
* Sign Out- Click here to sign out from your account.
* - Clicking on this Notification Bell icon, a user can see if any of the Mentors or Teachers who he/she follows have posted any new document or replied to his/her queries.
*  - Clicking on this icon will open the Class Group of the Student, where a student can track any of the class activities like any assignment due or any other kind announcements. Here he\she will also be able to participate in any decision making in the class through the Polling Mechanism.
*  - Clicking on this option will open the My Posts Page where a user can see the posts that he/she has pinned for future readings. The user can upload new documents and also edit his/her already uploaded posts.
* - Clicking on this icon will open the feedback form where a user can send feedback to the administrators suggesting any improvements in the application.
* **?** - Clicking on this iconwill open the Queries Block where a Student can post Queries openly for anyone to answer.
* Pressing on the ‘Department’ Button will list various departments from where the student can select the required department from where he/she can further select the Semester. Each Semester will include various courses. Available courses will have different course materials like Notes, PDFs, Books, PPTs, etc.

* Pressing on the ‘Work Field’ Button will list various Fields of Work. Each field of work will have some active mentors and faculty working in those fields. We can Select any mentor and his/her profile will pop up.

## Previous Works

In our college, we are provided a google drive link [1] created by previous batches which contains pdfs, ppts and notes. These are seldom updated and moreover, the contents are only limited to our course subjects’ syllabus. Also, this link is not interactive. We cannot put up any queries there. Moreover, we are going to build an android application which the students will feel more comfortable with. Plus, the app will provide additional features such as polling and chatting mechanism.

## Project Scope and Contributions

Main Stakeholders of this project are:

* Current College Students
* College Alumni
* Teaching Faculty

Main use cases associated with our project:

1. A Student can-
   * View already posted study material by his Seniors/Alumni/Teachers.
   * Post any relevant study material for the use of his juniors.
   * Search about the people working in the fields of his interest and take guidance.
   * Directly ask Queries from his/her seniors/alumni/teachers through a chatbox.
   * Vote for a decision to be taken by his/her class.
   * Volunteer to assist his/her juniors by answering their queries.
2. An Alumni/Teacher can-
   * Share about his/her work experience to help other aspiring students interested in the same field of work.
   * Volunteer to assist students from his/her college by answering their queries.
3. A Class Representative can-
   * Post a Poll in his/her class group to make a decision.
   * See the results of the poll in the form of a Pie Chart having three sections- Agree, Disagree, Not Responded.

Initially, our application’s scope will be limited to only the students of our own college then gradually we will try to take it globally. It will contribute a great deal in the life of a college student by easing his/her way of finding any relevant study material.

## Technical Feasibility

The technologies to be used in this project are-

* Java Programming Language
* Android Studio
* MySQL Database

Each of the above mentioned technologies are freely available and technical skills required are easily manageable. Also, our project is not very complex so we will be able to develop an acceptable application with necessary but not limited features. Moreover, the time limitations of the project development and the ease of implementing using these technologies are synchronized.

The basic requirements to develop the application like Computers, power supply, internet, and soft-wares are easily available in college computer laboratories. Also, there are not many financial overheads that can pose any difficulty.

The app will not be using any confidential organizational data for which we will be needing any kind of permissions. The mentors or teachers will provide any personal or educational information willingly.

## Risk Analysis

The major risk currently is not being able to meet the deadlines. So, we plan to develop the project in modules. Also, doing so will help us keep our errors minimal. As this project contains a various number of functionalities, the code may become a mess as we are inexperienced developers.

Other risks include the version operability of our project on various platforms. We will try to keep our applications as diverse as possible. We will also maintain our app so that it can cope up with technology upgradations.

## Work Plan/ Schedule

We plan to develop this project in various versions. We will introduce new functionalities one by one in each version of our project.

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Phase** | **Description** | **Expected Duration** |
| 1 | Feasibility Study | It includes analyzing the project functionalities and the time and cost expected to be incurred to check the feasibility of the project. We will generate the Feasibility Study Report in this phase. | 2 weeks |
| 2 | Requirements Specifications | It includes capturing all the requirements of the software and specifying them formally. We will generate the Software Requirements and Specifications document in this phase. | 3 weeks |
| 3 | Design | It includes creating a design for the software keeping in mind the requirements of the project. We will generate various use cases and the layout of the application. | 2 weeks |
| 4 | Coding | In this phase, we will implement the design of the software by writing the actual code. We will generate the code in modules and keep on testing each module as it is developed. | 4 weeks |
| 5 | Integration | This phase will include the integration of various modules and linking the front end and the backend of the system. It will also include setting up network requirements. | 1 weeks |
| 6 | Testing | In this phase, we will test our application and debug errors. | 4 weeks |

## Suggested Deliverables

The end result of this project will be an android application having different sign-in options for students, teachers, and alumni, and a centralized database to store all the data that is posted on the application. Each Stakeholder will have different kinds of GUI.

## Any other Details

Not Applicable

## References

* 1. <https://drive.google.com/drive/u/0/folders/0B-GCOGyxmJAtV3FXdmgxRXlnb3c>