

Indian Institute of Information Technology Vadodara

Software Engineering
IT - 304
Team - 04 (DeepBench)

Feasibility Report

Team Members

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Purpose

The main purpose of feasibility study is to consider each and every possible factor associated with the project and determine whether the investment of time and other resources yield desired results. It also includes determining the investments, manpower and costs incurred on this project.

Project Idea

To create a mobile application using Android Platform which will reduce the amount of efforts and time wasted in searching interested students for various activities.

Feasibility Study

Every project is feasible provided given unlimited resources and infinite time. But, this is not the case while working on projects. However, it is both necessary and prudent to evaluate the feasibility of a project at earliest possible time. Wastage of manpower and financial resources and untold professional embarrassment can be avoided if an ill-conceived system is recognized early in the development phase.

Economic Feasibility

Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. The project is economically feasible as it only requires a mobile phone with an open source Android operating system.

Technical Feasibility

Our application is based on Android Platform, which is a stable and well established in the current era. Project is technically feasible as all of our team members have prior experience in JAVA and

Object Oriented Programming, also, few of the team members are familiar with Android Development (IDEs like Eclipse / Android Studio).

One new technology which we are going to use is Firebase (for real time Database). The purpose of using Firebase as it is user friendly and also feasible to learn within our domain.

Operational Feasibility

Operational Feasibility relates to whether the participants will be able to handle new system.

Training of 2 days will be sufficient to get basic knowledge of Android. Every material related to Android is available online.

System Requirements

Hardware Requirements

Processor : Intel i3 or above

Memory : 1GB(RAM), 200 GB(HDD)

Software Requirements

Operating System : Linux/Mac/Windows(7 or above)

Platform: Android SDK

IDE : Android Studio

Database : Sqlite/Firebase

Web Technologies: Java/Kotlin, XML

Other Project Ideas:

We have discussed ideas based on emerging fields which involves the basic knowledge of Artificial Intelligence and Deep Learning. The Project Ideas include topics like

Emotion Detection based on Mood of person:

Idea description: The person's image will be captured by webcam which will be matched by dataset which finally results into detecting person mood. It include machine learning and image processing, with the help of best algorithm the training and testing would be done on a large collection of a dataset of different mood of a person on different situation.

Rejection reasons: It require good command in machine learning, but none of our team member has any idea or any skill related to it. As machine learning is itself a wide area to know about therefore, completely learning would require lot of time, hence due to time constraints we decided not to prefer this idea. Another reason was less scope, people do not prefer to use any software to just detect the mood. We even find difficulty to find any client for this software.

Notes and Text Summarization.

Idea description: It requires a large text file as input and produces a Summary text file in note format, so that it helps to save time in reading large files manually. With this we can easily figure out the main point which might be escaped while reading.

Rejection reasons: A complete project on notes and text summarization is already done by our seniors. Their project involves all necessary features related to this idea, hence there was

no point trying to modify the existing solution. which may not result in any new innovation. so we did not prefer this idea.

Risk Factors

The following risk factors are identified:

1. Misunderstanding the requirements.
2. Lack of adequate user involvement.
3. Failure to manage end user expectations.
4. Lack of required knowledge/skills in the project personnel.
5. Introduction of new technology.
6. Insufficient/inappropriate staffing.