**Dr B R Ambedkar National Institute of Technology, Jalandhar**

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**FEASIBILITY STUDY REPORT**

**ORGANIZATION ISSUE HANDLER**

**(VERSION 2)**

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**Problems: -**

1. **College Problems Handling System**:
2. Common problems of various student on various issues.
3. Issues regarding college services, requirements, queries, hostel services and complaints.
4. The issues will be communicated directly to the college administration.

         --- **Task Manager List**: -

1. Will use GitHub.
2. GUI (easy to use for naive users)
3. Problems will be shown on the app according to the priority.
4. The voting technique will be used for the issues and the problems/issues with optimum/required number of upvotes will be forwarded to the college administration.
5. Gamification of app
6. We can add some features so that disable persons can use them. Like read out loud etc.
7. Suggestions to solve the problems will also be taken from the students.

**Document Revision History**

* **Revision 1 (prototype)**
* **Revision 2:** Tags will be given to the problems in accordance to the category of the problem.

**Group Members Details**

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**1. Feasibility Study Report (FSR) Outline**

**1.1 Title**

**Organisation Issue Handler**

**(A platform to handle and deliver the issues/problems faced by various students to the concerned authority for solving)**

**1.2 Abstract**

There are a lot of issues of delivering problems to the administration in many of the organizations (e.g., in Institutes and Institutions etc.). In colleges like NITJ there is a big problem of problem solutions. There are a lot of issues regarding library, dispensary, hostel, academic services, administrative services etc. There are the cases where students somehow are not able to convey or tell the problem authorities. This application handles problems by delivering it to the concerned authorities by various levels of upvoting confirming that each genuine problem to be delivered to the authorities and the unnecessary ones are filtered out.

**1.3 Keywords**

**Priority Queue, Tags, Student/Authority/Administration accounts, Organization issues, Software Application, GUI, JavaFX.**

**1.4 Description of the project**

This project aims to handle the problems of students in colleges, institutes and various other institutions. There is no proper way to deliver the problem in the institutions like colleges in this digital era. We will provide the application where the problems will be posted and forwarded to the concerned department. We will provide an easy to use user friendly GUI to make the application more adaptive to naive users.

The three types of accounts will be created in the app according to the positions of the individuals in the college.

1. Student Account: All students will have this account. They have to download the application and create a student account in order to post the problems so that everyone can see that someone is facing this problem. The other students with the same type of account will give upvotes or downvotes depending upon the genuineness of the problem. The problem will be visible to all the students and the only students can vote which corresponds to the same department of the problem. E.g., The problem related to the dispensary can be voted by all the students. The problem related to the CSE department can be voted by CSE students only and the problems related to the hostel 1 or 2 can be voted by only the concerned students only while the problem will be visible to all.

This restriction on the votes of the problem will be done by the details of the students which will be captured when the account will be created.

The voting(upvoting/downvoting) will be done at this level first to ensure that this is the genuine problem. After getting enough upvotes the problems will be forwarded to the next level. The suggestions regarding the problem solutions will also be taken as comments on this level.

2. Authority/faculty Account: This account will be the account for all the faculty, hostel warden, all authorities. The problem when got enough upvotes is forwarded to this level. All the faculty, Authority, managers, are able to vote to the problem. They can observe that this is a real problem and should be taken care of. The problem after getting through enough votes will be forwarded to the next level.

3. Administration Account: This is the level where the accounts of only those persons will be created which will look after the problem. The analysis of the problem is done at this level and updation of the problem how much it has solved. The problem reached at this level will be a really genuine problem as passed through all the levels and tests of genuineness.

The tags will be used to refer that this problem belongs to the “tag” department. For example the problem related to the dispensary will be given the tag of dispensary.

**1.5 Previous Works**

There is no proper way been provided to get the problem solved in an institute like available in the market but none is effective enough and lack gamification. There are very less Desktop applications available.

Centralized Public Grievance Redress And Monitoring System(CPGRAMS): This is a platform where you can lodge your Grievances for Quick Redress. This application is run by Government of India, Ministry Of Personnel, Public Grievances & Pensions, Department Of Administrative Reforms & Public Grievances. This is an online web-enabled system over NICNET developed by NIC.

Problem in this application: Since this application is run by Government of India, So this covers only social problems. They doesn’t solve issues regarding a particular organization.

So a separate application need to be made which solves issues related to a specific organization.

* Works done:-
  + This software is using JSP, Servlets, JavaFX, Java packages etc, Since java is popular in enterprises and there are many supports available on internet. Our team is aware of these technologies.

**1.6 Project Scope and Contributions**

* Scope and problem is chosen:-  There is not any Desktop/mobile application available which does allow the individuals post a problem in the institutions.
* Benefits :- This Desktop application works for all the organizations not necessarily colleges, thus Its benefits can be counted for any group of people in the organization, whether they are students studying in a college, Professionals working in organizations etc.,

**1.7 Technical Feasibility**

This project is technically feasible because we can use existing technologies and algorithms in an innovative way. Language chosen is in academics too.

Java :- Java is a programming language. There are lots of applications and websites that will not work unless you have Java installed, and more are created every day. Java is fast, secure, and reliable. Our project is based completely on java and its libraries eg. JSP, Servlets.  JavaFX will be used in making the front end working of the application.

Java applications are platform independent also.

Eclipse IDE:- Eclipse IDE is open source and popular for Java development.

**1.8 Risk analysis**

    We are working on institutes problems and the problem is that we have to talk to the administration on how they handle problems. The effort may be more on convincing them to use the app and give attention to the problems. There may the case like they may not use this platform to solve the problem in this way. The problem as concerned with government institutions may require the government permissions to be taken.

**What can go wrong during the project? What is your fall-back plan?**

Fall-back Plan is If something goes wrong we can choose to work on easy features or use open source project and modify it.

**1.9 Work Plan/Schedule**

**Work Plan:-**

1. Properly discuss the tasks chosen (for eg. what, how, when, then).
2. Allocate the tasks to team members.
3. Implement before the deadline.

**Schedule:-**

Outline you plan, show principal activities and milestones.

* Following the software engineering principles i.e.
  + Analyse
  + Plan
  + Design
  + Implement
  + Testing
  + Maintaining
* We analyse the feasibility of methods adopted and getting resources which help in implement certain features
* Discuss the plan with whole team so that there can be integrity of target.
* A prototype is made which will be done by all members of team individually
* Then team will be divided specific tasks based on their interests such that all tasks are divided equivalently.

**1.10 Suggested deliverables**

a. Clean GUI

b. Saving with priority

c. How: - there will have

d. Tags based query handling

e. Three levels of problems

f. Updates on the current problem like how much has it solved and what is being done to solve the problem.

**1.11 Any other details**

    We shall be tracking our work via GitHub. This will give us the versions of documents, so the every version of the document can be looked upon later.

**1.12 References**

GitHub, WWW, Wikipedia, Oracle.