Software Design Documentation
for the
Student Evaluation System

Introduction-:

Purpose: A university management program which would lead to easier access of information and less amount of error in the managing of data. Giving the information about all the academic results that the student has given organized by the faculty. And and grade the student according to it.

Scope: It will be useful for universities all around the world giving access to information remotely and securely keeping it safe from unauthorized persons. So universities would be willing to buy the software or invest in it.

Definition and additional information: The software will be provided for free in the initial stages of the program development but after that a fee would be charged according to the number of students in the college/university.

General Description-: The software will be used to provide ease of access to give all the functions to a university related to all the academic result of the students and their grading/CGPA.

Technical Issue-: The uploading of the app will also be a huge task as a huge chunk of money will be required for the upload. Also the domain would require money and expertise in this field. People with a very good knowledge of programming languages will be required for the development of the app and the web page. As the app starts from a home office level the budget will be low. So only a handful of

people can be hired. So these handful of people should be very good at their job.

<u>Interface Requirements-:</u>

GUI(Graphic User Interface)-: Graphical user interfaces (GUIs) will provide point-and-click control of the software applications, eliminating the need for others to learn a language or type commands in order to run the application. This will make the app easier to use by the user and hence will provide a good enough platform for the app.

Hardware Interface-: A fast paced computer with all the required software.

Software Interface-:
1.) For Android App - Java , SQL(to communicate with a database), Android Software Development Kit (SDK) and Android Studio and XML(to create information formats).
2.) For iOS App - Xcode(The only language working on iOS apps) .
3.) For web page - HTML, CSS and Java script(to make web pages interactive). Data structure is required for both to maintain the servers and also a OS like Linux, Mac OS or Windows 7 or above is required for programming.

Performance Requirement-:
The app is required to perform at very good pace and should support a minimum of 90hz refresh rate. So that the app doesn't feel lagging in the process of using it and should be fast enough for high end phone users. The app should also be able to switch to different pages at a good enough pace so as to not make the user feel as if it is a poorly developed app.

Design Constraints-:
1.) Screen size, sensors and interactions -: Since the web page/app would be available for mobile devices too and since screen sizes are much smaller when designing mobile software. We have a limited area to provide all the features that we want. The design should be such that

people can touch any icon without any problem form other icons or touching other icons.

2.) Fonts, language and tone of voice-: The fonts and language we use in the product makes a big difference to the user experience. Language and tone of voice reflects the product. The font should be in taste of the user. And the voice / tone the app use should be decent and should not sound low quality or cheap as if copied from chrome.

3.) Less memory usage-: We will try to minimize the amount of memory that our application uses. Memory use impacts the experience that users have with an application as if a app is large they would think about weather it will be feasible or not. As the app will be comparatively new the people would stop themselves from downloading it due to the large size.

Other Non-Functional Requirements-:

Security-: The app would work on a very secure environment so as to make it secure enough for people and less prone to hacking. The app would also give secure payment gateways so as to minimize the risk of cyber theft. Most of the permissions of the app required would not give the app any access of the phone other than the storage .

Reliability-: The app would be reliable enough for the users to trust it and use it in their daily life without giving a though of being hacked or of data theft. The app would make people feel secure. This would help to build trust in people related to our app and make it a big enough success to be counted in one of the world's best best or rated number one.

Availability-: The app would be available in almost every app store in the world. The iOS variant of the app would be available in the apple app store and the android version in the google play store or the local app stores available in different phones such as samsung app store, mi app store etc. Also the user will be able to download the supported version from the web page itself making the app available for a very great amount of peoples in the world.

 Maintainability-: The app would be easily maintainable as the size would be small and the user interface easy enough to handle. Their would

be occasional updates which would give bug fixes in regular interval of time and also new features to make the app more interesting to use. New features will be released in short intervals of time so as the app does not become stagnant.

Portability-: The app would be portable as all the user data would be stored in the cloud so if the user downloads the app in any other device he or she may be able to continue whatever they were doing.

Operational Scenario-: The app would have a user friendly interface with a login required at the initial stage. Due to it's secure nature the app in the website would require a login every time the app closes and in the app the app would have a inbuilt hexa-lock, a pin or a fingerprint set up for the privacy of the user. Due to it's insecure nature face recognition will not be used. The app then would open it's home page which will discuss various open discussions going on at that time. The different tabs on the top would switch it into various tasks i.e. check marks, grade of a particular subject and overall grade