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# SOFTWARE REQUIREMENTS SPECIFICATION

for

Student Report & Financial  
Assessment Tool for Taleem Gah

Version 1.0

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March 31, 2023

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# **1 Introduction**

## **1.1 Purpose**

The purpose of this document is to define the requirements for the initial release of a student report and financial assessment website for Taleem Gah, which is a school that provides education to underprivileged children. The purpose of the website is to allow faculty members and administrators to generate student academic progress reports and review financial status in a secure and user-friendly environment. The system will be developed using modern web technologies and will be compatible with a variety of devices and web browsers.

## **1.2 Document Conventions**

This document will be written using the font, 'Computer Modern', of size 10. The font for diagram descriptions will be bolded and italicized, but follow the same font.

## **1.3 Intended Audience and Reading Suggestions**

This SRS is meant for relevant school administrative officers, faculty members, and software developers.

## **1.4 Project Scope**

The Student Report and Financial Assessment website will provide a comprehensive solution for the faculty and administrative members of Taleem Gah to create and assess academic and financial records in one central location. The website will consist of three main components. The first component is a user authentication module that will enable secure login and access control for faculty, and administrators. The second component is the student academic report generation module that will allow a user to view, log student grades, and generate report cards for progress analysis. The third component is the financial assessment module that will enable a user to review the institution's expenses and donations.

## **1.5 References**

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## **2 Overall Description**

### **2.1 Product Perspective**

Taleem Gah's student report and financial assessment tool is designed to be an essential sub-system of the institution's larger system. It aims to address the inefficiencies in record-keeping and difficulties in tracking and analyzing financial data and student performance that the school currently faces due to the reliance on paper records. The website will be designed to provide the institution with an efficient system for record-keeping. It will enable the institution to store, manage, and access records related to financial matters and student performance, eliminating the need for paper records. The website will feature an interactive web-page based user interface that is user-friendly and easy to navigate. The interface will provide the institution with the ability to efficiently and easily view, edit, and remove information related to financial matters and student performance. The information regarding student academic progress will be stored in a relational database and the financial information will be stored in a .CSV file. All of this information will be stored over the internet.

### **2.2 Product Functions**

The major features of this product are as follows:

- User Authentication
- Student Report Generation (create, view, delete)
- Financial Assessment (create, view, edit, delete)

### **2.3 User Classes and Characteristics**

There are two kinds of users that will interact with this product; Teachers and Administrators.

The administrators are allowed to interact with both financial assessment and student academic assessment modules. The teachers are awarded restricted access as they can only access the student academic assessment module.

## 2.4 Operating Environment

- The product will be compatible with majority of the popular internet browser applications - Google Chrome, Opera, Safari, Mozilla Firefox, etc.
- However, the product will be primarily debugged for and tested on Google Chrome (with the latest version of the browser application).

## 2.5 Design and Implementation Constraints

- There is only one user account assigned to each type of user. Multiple faculty members can access the tool using one account designated for them and multiple administrators can access the tool using one account specifically designated for them.
- Faculty members are not allowed to access, review, or create financial records. Thus, this module is only accessible to administrators who login using the administrator credentials.
- The product was designed using the latest version of Python and tested on the latest version of Google Chrome. Thus, the product may not behave correctly when accessed on older internet browsers.
- The graphical interface of the product was designed under the assumption that a user will only access it using a personal computer, and not a smartphone.

## 2.6 User Documentation

A range of documents can be created to target specific types of audiences (prospective developers, prospective users, etc.). Types of such documents are description document, registration guide, and user manual.

## 2.7 Assumption and Dependencies

### 2.7.1 Assumptions

- The user will be equipped with a stable internet connection to access and use this product.
- The user will also have an updated version of their internet browser application.
- The user will only access the product through a personal computer.

### **2.7.2 Dependencies**

- The product is highly dependent on the version of the internet browser application, and if it has HTML5 and JavaScript support enabled.

## **3 External Interface Requirements**

### **3.1 User Interfaces**

- Front-end: HTML/CSS/JavaScript
- Back-end: Flask
- Database management: PostgreSQL

### **3.2 Hardware Interfaces**

The user should be equipped with a device with adequate system specifications and a working Network Interface Card, and a stable LAN connection.

### **3.3 Software Interfaces**

The user's internet browser application should have HTML5 and JavaScript support enabled, and a operating system which is compatible with the internet browser application. Database, Cloud server,

### **3.4 Communication Interfaces**

The product requires for a stable LAN connection and internet browser application that should have HTML5 and JavaScript support enabled. Internet protocols that will be used by this product are FTP, HTTPS, TCP/IP, TLS, etc., to facilitate the transfer of data between applications and computer systems over a network.



## **4 Functional Requirements**

### **4.1 User Authentication**

#### **4.1.1 User Login**

To access the tool, a user should be able to login to the website. They must provide a user-name and a password.

#### **4.1.2 Reset Password**

A user should be able to create a new password for their account. They must provide their correct user-name in order to do so.

### **4.2 Homepage**

#### **4.2.1 Generate Report Card**

A user should be able to enter student academic progress information which can then stored in a database for future retrieval. The user should also be able to download the information onto their systems in a PDF file format. The user should be able to provide the following information:

- Student Name
- Class and Semester
- Subject
- Passing Mark
- Total Mark
- Obtained Mark
- Total Working Days
- Student Attendance

## **4.2.2 Generate Financials**

### **Add Financials**

A user should be able to enter institution's finance's details for some month and year which can then be stored in a .CSV file for future retrieval. The user should be able to provide the following information:

- Month and Year
- Name of Donor and Amount
- Name of Expense and Amount

### **View Financials**

A user should be able to view any of institution's recorded financial information. The user should be able to provide the following information:

- Month and Year (From)
- Month and Year (To)

This will then show all the expenses and donations that have been recorded during that time period along with the total difference in value. A negative value should indicate that the donations received were not enough to cover the expenses accumulated. A positive value should indicate that the amount of donations were greater than the expenses.

### **Edit Financials**

A user should be able to enter or change the institution's finance's details for some month and year which can then be updated in a .CSV file for future retrieval. The user should be able to provide the following information:

- Month and Year
- Name of Donor and Amount
- Name of Expense and Amount

## **4.2.3 View Records**

A user should be able to view all the student report cards that have been recorded and stored for some academic class and semester. The user should be able to provide the following information:

- Class and Semester

#### **4.2.4 View a Report Card**

A user should be able to view a report card. This report card will contain information regarding a student's performance for a particular class and semester. A user should be able to download this information onto their local systems in a PDF file format.

#### **Delete a Report Card**

A user should be able to delete a report card from the system. This will remove all the information recorded in the report card from the database.

## **5 Other Nonfunctional Requirements**

### **5.1 Performance Requirements**

### **5.2 Safety Requirements**

- Privacy of data from outside organizations
- Ensuring that data stored in database is safe in the event of a catastrophic server crash.

### **5.3 Security Requirements**

- No one without the proper login credentials can enter the website and access information.
- One particular type of a user only can perform his/her particular assigned actions (i.e. student report card generation).

### **5.4 Software Quality Attributes**

- Availability: This product must be available for users 24/7. Student academic information and financial details must be available at all times for retrieval and assessment.
- Re-usability: This product can be reused multiple times for multiple academic years and sessions.

### **5.5 Business Rules**

## **6 Other Requirements**

### **6.1 Glossary**