Software Requirements Specification

For

GIKI Portal

Version 1.0

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

In this document we have specified the software requirements of a web application for GIK Institute, GIKI Portal version 1.0. GIKI Portal is designed to provide a single and efficient platform, for the students of GIK Institute, to file their complaints and suggestions to the administration.

1.2 Document Conventions

No document conventions are being used at this time.

1.3 Intended Audience and Reading Suggestions

This document targets individuals involved in the development of GIKI Portal, to understand the system requirements in a better way. The reader should understand of Use Case diagrams in order to understand this document properly. Software requirements, Goals and objectives, project scope, system details, etc. of GIKI Portal are specified in this document. Individuals involved in the development of the project currently or in future can use this document to better understand the requirements of GIKI Portal.

1.4 Product Scope

The purpose of GIKI Portal is to provide a single efficient platform to the students of GIK Institute to file their complaints and suggestions regarding different departments of the Institute. The purpose is to ease the quality control system procedure and to create a convenient and easy-to-use application for students, trying to resolve issues they face during their stay at GIK Institute. I order to replace the current complex and inefficient manual system of complaint management; we are implementing a web application that will enhance the efficiency of the procedure. Students file their complaints regarding any department of the Institute. The administration can view and process the pending complaints. Students will be able check the status of their complaints.

2. Overall Description

2.1 Product Perspective

The development of this application has been influenced by Pakistan Citizen Portal. The application is developed, keeping in mind the necessities of the Institute, to provide a single platform to ease the complaint management process, which each student of Ghulam Ishaq Khan Institute has to go through.

2.2 Product Functions

The product should provide separate account to each student. The product must be able to collect the complaint from the student, efficiently, and forward it to the administration for processing. On the other end, the administration should be able to view and keep track of all the complaints. The admin should be able to change the status of the complaint.

2.3 User Classes and Characteristics

There will be two user classes that will use this product:

- *Students: Students will use this application to file their complaints to the administration.*
- *Administration: Admin will use this product to view the complaints filed by the students and modify the status if any action taken on the said complaint.*

2.4 Operating Environment

- *This application could be accessed through any web browser in Windows, Linux or macOS.*
- *A network connection is required for the application to work.*

2.5 Design and Implementation Constraints

- *The product is developed in English language. So, currently, English is the only language available.*
- *A student can have only one account.*
- *The UI may not be optimized for a smartphone screen.*
- *Features such as personalized messages through email, different admin sub-sections for each department and generating reports of complaints history may be skipped due to the shortage of time.*

2.6 User Documentation

- *We will provide a basic video tutorial to help users understand the basics of the product.*

2.7 Assumptions and Dependencies

- *We have assumed that every end-user of this product has access to a computer.*
- *We have assumed that every end-user of this product can use the application in English.*
- *The end-user has access to an internet connection.*

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

GIKI Portal has two user interfaces, one for the student and one for the administration. These user interfaces have the same basic design.
Every student must sign up in order to access the product. The student interface has a dashboard that shows the history of complaints as well as processed and un-processed complaints. The student can view and update his/her profile and change the password. Student can file a complaint. The user will be able to upload a document regarding the complaint.
The admin interface also has a dashboard that provides an overview of processed and un-processed complaints. The admin will be able to see each user and their details. The admin will be able to manage the complaints such as change the status. The admin also has a window to the change the password. The admin will be able to add a complaint category and sub-category such as academics, sports, sanitation etc.

3.1.2 Hardware Interfaces

The application will need access to the computer if a user wants to upload any document regarding the complaint.

3.1.3 Software Interfaces

GIKI Portal has a common MySQL database that is shared by all the interfaces along with specific permissions and restrictions that are required. All the student's data that sign up, is stored in that database. This data can be seen by the administration. Using MySQL database provides the flexibility to have as many users as we want as well as security.

3.1.4 Communications Interfaces

There is a common database shared by all the interfaces with specified permissions and restrictions. All the data is secure and cannot be accessed by anyone without permission. All the passwords are encrypted.

3.2 Functional Requirement

3.3 Student Sign Up and Login

3.3.1 Description and Priority

User will have to sign up with a username and email. The account will be created only if there is no account already registered against the same email. Sign up is necessary to use this app hence it is a top priority function.

3.3.2 Stimulus/Response Sequences

Student should have an email for login.

3.3.3 Functional Requirements

The user creates an account using an email id(preferably institute issued id) and password. This data is then stored in the database. An error will be prompted if the email is not in correct format, for example, abc@giki.edu.pk.

3.4 Change Password

3.4.1 Description and Priority

The student can change his password by providing the old password.

3.4.2 Stimulus/Response Sequences

The student must enter the old username and password. Then the student can change the new password.

3.4.3 Functional Requirements

Student must enter the old password. Then student has to enter new password and confirm it.

3.5 Account Settings

3.5.1 Description and Priority

The user can view or change the information related to his profile.

3.5.2 Stimulus/Response Sequences

The student must be logged in into his/her account to view the profile information.

3.5.3 Functional Requirements

This page will have the student's profile information. This information can be modified if the student wants.

3.6 Lodge a Complaint

3.5.4 Description and Priority:

The student will be able to file a complaint on this page.

3.5.5 Stimulus/Response Sequences

The student must be logged in in order to file a complaint.

3.5.6 Functional Requirements:

The student will select category and sub-category of complaint, type the complaint and attach the document (if any). This info is stored in database.

3.7 View Complaint

3.5.7 Description and Priority:

The admin will be able view all the complaints. The admin can change the status of a complaint.

3.5.8 Stimulus/Response Sequences

The admin must be logged in into the system to view and change the complaints.

3.5.9 Functional Requirements:

The admin may open any of the not-processed, processed and closed complaints. The status may change the status of the complaint such as pending, closed or not processed.

3.8 View Student Details

3.5.10 Description and Priority:

The admin will be able view all the students in the system and all the details associated with them

3.5.11 Stimulus/Response Sequences

The admin must be logged in into the system to view the students.

3.5.12 Functional Requirements:

The admin may view the details of the students such as email contact number etc.

3.8 Add Category and Sub-Category

3.5.13 Description and Priority:

The admin will be able to add a complaint category and sub-category to the system.

3.5.14 Stimulus/Response Sequences

The admin must be logged in into the system to add any categories.

3.5.15 Functional Requirements:

The admin can add any categories such as academics, sports, sanitation, mess system etc. Similarly, sub-categories can be added such as sanitation inside work department.

4. Other Nonfunctional Requirements

4.1 Performance Requirements

The system should be efficient enough to support ~5000 users. The system should be stable enough and should not crash under any circumstance.

4.2 Safety Requirements

To ensure the safety of data, the passwords should be encrypted. Different coding techniques could be used for this purpose.

4.3 Security Requirements

The user accounts and the system itself should be secured to prevent cybercrimes. For this purpose, passwords must be encrypted.

4.4 Software Quality Attributes

The software must be designed for reliable and easy usage such that it can be used easily by people of with any level of expertise. The process flow should not be complicated so that the system can ensure fast access and processing.

5. Other Requirements

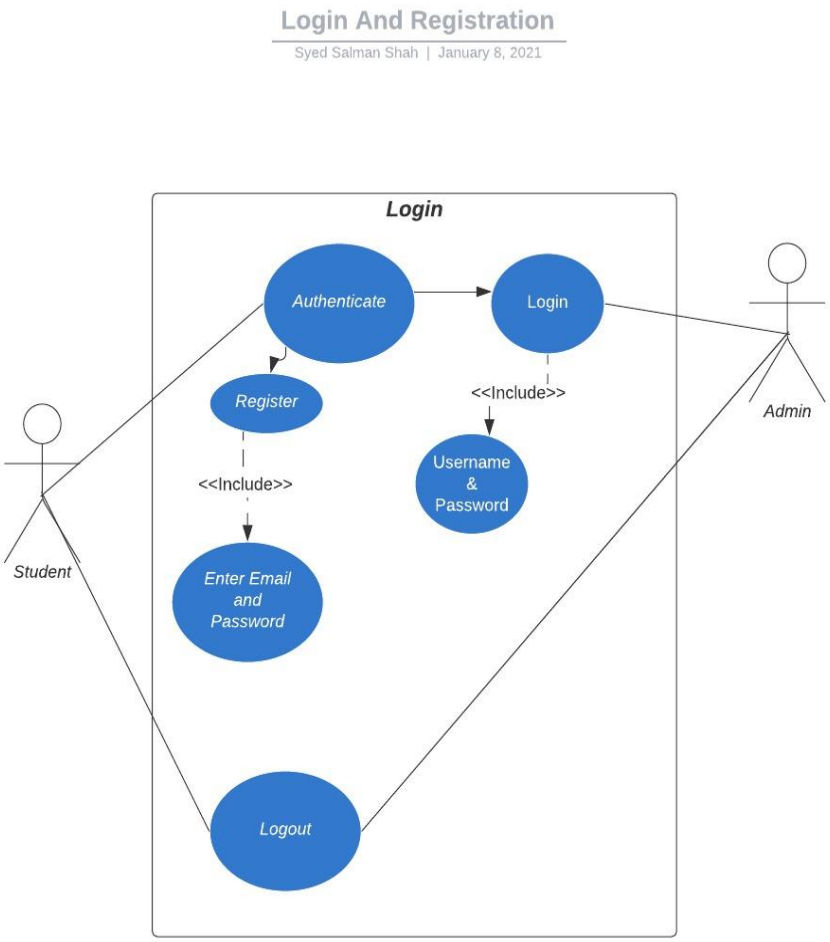
5.1 Simple and Good-Looking UI

The UI should be simple to ensure faster access. Also it should be user friendly.

5.2 Reuse Objectives

The code should be well-structured so that if any future changes are required, they can beS easily made.

6. Use cases


Login And Registration
Syed Salman Shah | January 8, 2021
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Authenticate
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Register
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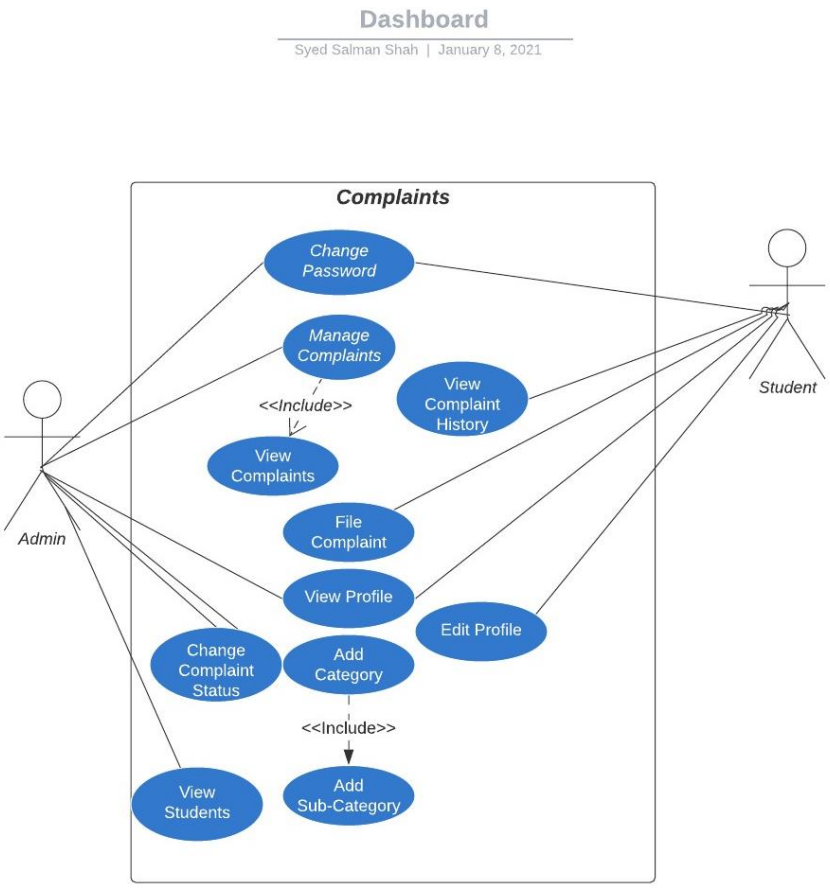
Username & Password
Enter Email and Password
Logout
Student
Admin



7. Link to the Presentation

https://drive.google.com/file/d/1gEBd77Cf7GlDYndgDg-X6QGHscxcirff/view?usp=sharing