
SOFTWARE REQUIREMENTS SPECIFICATION

for

IIITG PORTAL

Version 1.0

Prepared by : 1. Veshala Akash (2001202)
2. Yogesh Tiwari (2001208)
3. Nityanand Mathur (2001127)

Submitted to : Sanjay Moulik
Asst. Professor

January 22, 2023

Contents

1	Introduction	3
1.1	Purpose	3
1.2	Intended Audience and Reading Suggestions	3
1.3	Project Scope	3
2	Overall Description	5
2.1	Product Perspective	5
2.2	User Classes and Characteristics	5
2.3	Product Functions	6
2.4	Operating Environment	7
2.5	Design	7
3	System Features	9
3.1	Description and Priority	9
3.2	Functional Requirements	9
4	Other Nonfunctional Requirements	10
4.1	Performance Requirements	10
4.2	Security Requirements	10
4.3	Software Quality Attributes	10
4.4	Business Rules	10
5	Other Requirements	11

1 Introduction

1.1 Purpose

This is very much difficult to maintain all the data of a course as a hard copy. Any data can be changed, deleted, or added at any time. Such as - A new teacher can be assigned to a course, and he also can be changed, And so many students are getting admitted every semester. So, "IITG PORTAL" is the solution. "IITG PORTAL" is an official website based on marking and resulting system of IITG authorized. The main concept of "IITG PORTAL" is to devitalize Btech courses, their students and teachers' data maintenance.

1.2 Intended Audience and Reading Suggestions

This SRS is for developers, project managers, users, and testers. Further the discussion will provide all the internal, external, functional and also non-functional informations about "IITG PORTAL".

1.3 Project Scope

"IITG PORTAL" creates a space for Director, Teachers, Students and Office Staffs for maintaining particular programs like - Btech.

After getting admitted to a programs a student has been given a registration number, by using which he/she can inter from-fill-up page. It will take his/her personal informations, admitted fee informations. He will be added as a student of that particuler programs after completing his/her payment process. After that he/she can select course of the program and then pay the fee for that. Student profile will contain all his personal informations, past results, recent result and notifications.

Office staff only post result publicly and also notice. But off course with the permission of Director.

Directors' main work is to assign teachers to the courses they will take, create teachers profile and approve mark-sheet. He can move a teacher from one course to another. He also can be a teacher and can also can take the courses and perform all the functionality of teacher like- marking papers. He can also directly post notice to the website, teachers and also students.

Teachers' account are created by director. They (Teachers) entry marks of the students, can view all the marks of the students and change it after submitted it to the director. Every student of that particular course will be under the teacher who is assigned to that

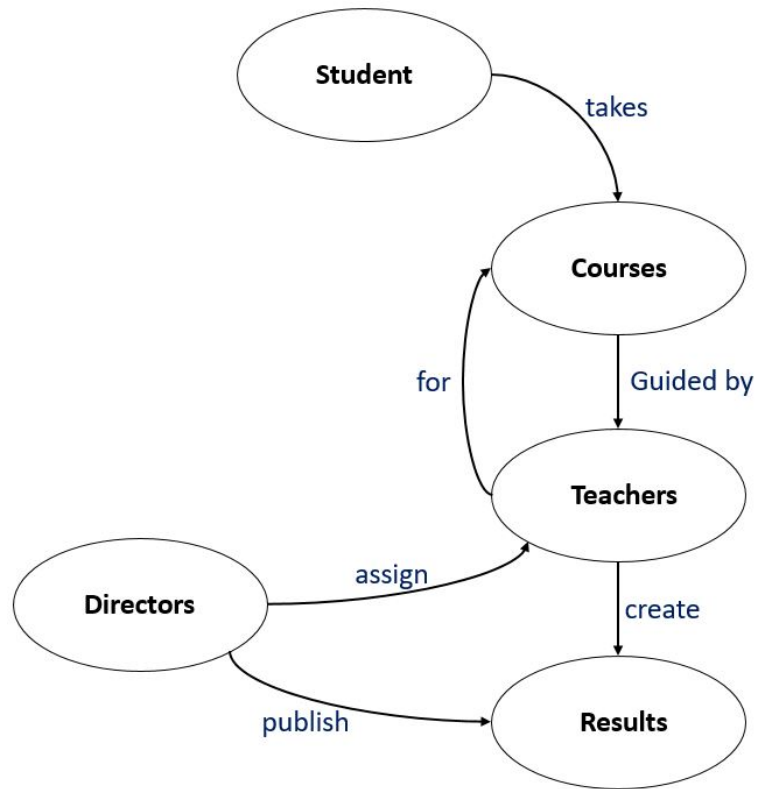


Figure 1.1: Entire work-flow

course.

Figure 1.1 (Entire work-flow) is the overview of the project. Connection of all the entities are dependable to each others. This gives the simple idea about the functional activities of the project.

Student cycle, In the Figure 1.1 "Student" takes "Courses" ; "Courses" is guided by "Teachers"; "Teachers" creates "Results".

Teacher cycle, In the Figure 1.1 "Director" assign "Teachers"; "Teachers" for particular "Courses"; "Director" publish "Results".

So, every entity is vary much interactive with each other.

2 Overall Description

2.1 Product Perspective

"IIITG PORTAL" is the replacement of the manual hard copy result process. The data have been stored in the hard file or papers, this website will store all of those in the website. Main goal of this project is to minimize the work and maximize the result of this result processing system.

2.2 User Classes and Characteristics

"IIITG PORTAL" has basically 4 types of users.

- Teachers
 - Director
 - Course Teacher
- Students
- Official Staff

Teacher has 2 types - Director defines the course teachers who will take the courses. Student fulfill all the requirements like- fees, informations can take advantages of the website.

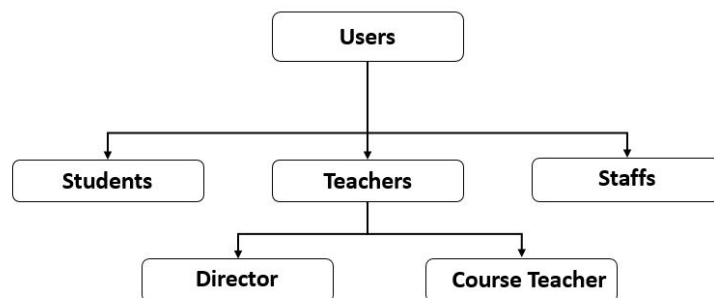


Figure 2.1: type of users

2.3 Product Functions

"IIITG PORTAL" store all the results of the students of program PGD, MIT. Also others programs can be included if necessary. Before using the main function of the software

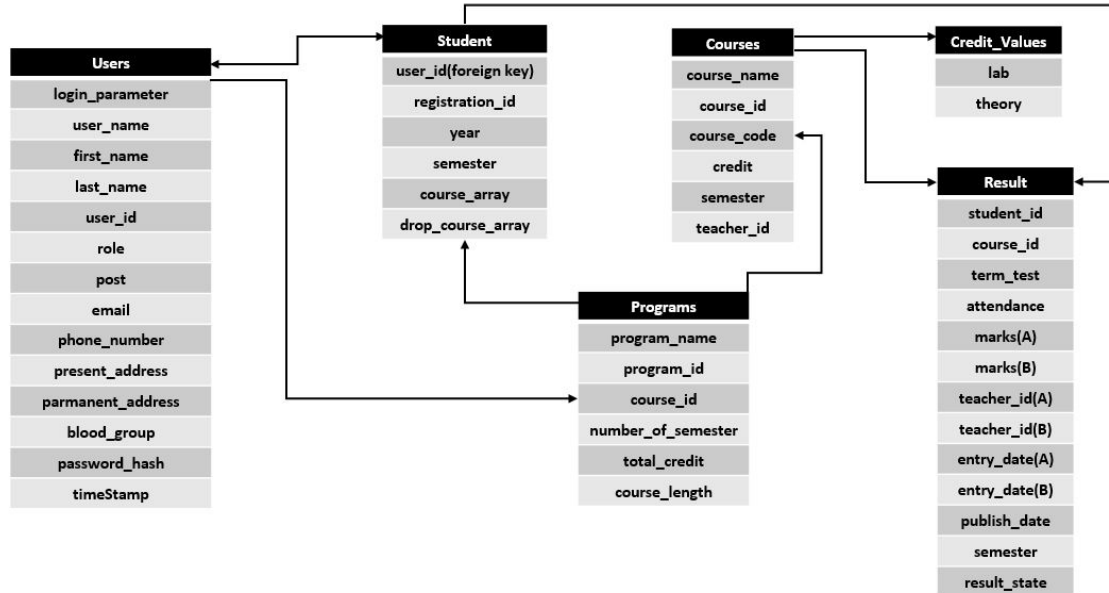


Figure 2.2: Data Flow Diagram

result process, users have to be registered.

All users have - login_parameter, user_name, first_name, last_name, user_id, role, post, email, phone_number, present_address, parmanent_address, blood_group, password_hash and timeStamp.

Students have some extra informations after complete his/her registration , such as - user_id(foreign key), registration_id, year, semester, course_array and drop_course_array. These are the information that contains his/her result of his taken courses and program. Each programs has some data - program_name, program_id, course_id, nunnumber_of_semester, total_credit and course_length. There will be onew or many course_id in each programs.

Courses table contains - course_name, course_id, course_code, credit, semester and teacher_id.

Every course has its own Credit Values. Those have been 2 types - lab, theory.

Result is the main feature of all. It contains the values of all the exams of a particular student. It has data field - student_id, course_id, term_test, attendance, marks(A), marks(B), teacher_id(A), teacher_id(B), entry_date(A), entry_date(B), publish_date, semester and result_state.

2.4 Operating Environment

The website will be operate in any Operating Environment - Mac, Windows, Linux etc.

2.5 Design

Student activities have 3 steps -

- From Fill Up Process
- Courses Payment
- Student Profile

Top selected Student first fill his/her form, bank payment. After verification, student pays for their selected courses. Then he can enter his profile.

Every student profile contains his/her personal information, results, taken courses, dropped courses and notice.

Notice will contain all the news of IIITG .

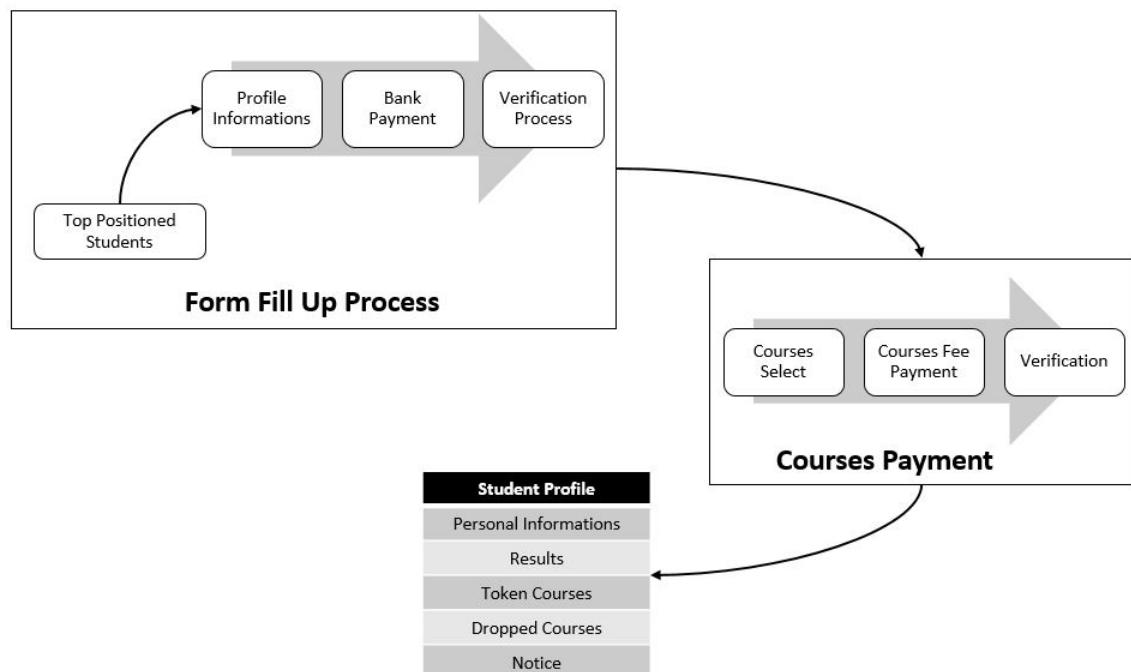


Figure 2.3: Student Activities

Teacher activities have 2 steps -

- Director
- Course Teacher

Director can re-view the result, publish result, give notice and also create teacher. He can also perform course teacher activities.

Teacher creates results, view students and create notice.

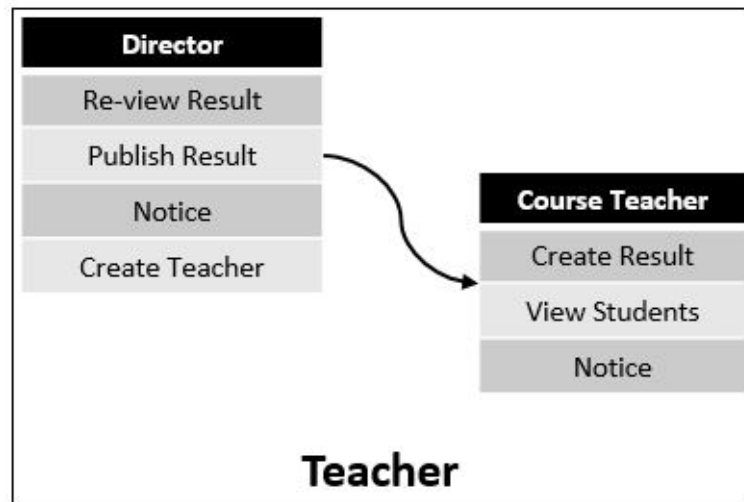


Figure 2.4: Teacher Activities

Staff has only one activity -

- Notice

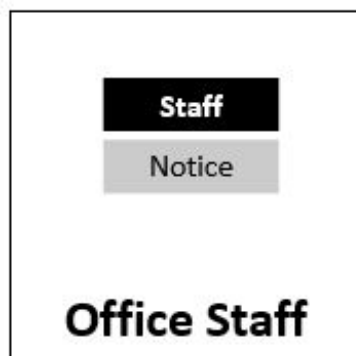


Figure 2.5: Staff Activities

3 System Features

"IIITG PORTAL" is a result processing web software. So the main art of this product is to enter data of results and publish.

3.1 Description and Priority

"IIITG PORTAL" has features that are main and also some are sub. But all the feature is necessary for this software.

The features with priority up to down -

1. Result Creation : This is the goal feature of this software. It is been operated by teachers. They input the results of the students.
2. Result Re-view : This is done by director.
3. Result Publish : It is basically notice. This is mainly done by director or sometimes by staffs commanded by director.
4. Teacher : Teacher takes the courses and create the results.
5. Student : Student takes the courses of a program.
6. Staff : Their only work is to post notice.

3.2 Functional Requirements

The "IIITG PORTAL" website is being built on NodeJS, Express, HTML, CSS, JavaScript and MySQL.

Back-End - NodeJS, Express.

Font-End - HTML, CSS, JavaScript.

Database - MySQL.

4 Other Nonfunctional Requirements

4.1 Performance Requirements

"IIITG PORTAL" will be used for result system of IIITG programs, like - Btech. So for more interaction Django framework, Python language and MySQL is used.

4.2 Security Requirements

No one without registered users can enter to the website. One particular user of a section only can perform his/her particular actions.

4.3 Software Quality Attributes

In the development phase also testing and conferences of users is being continued. So that the quality of the software is being maintained and all the requirements are being fulfilled.

Database, logical and also UI test is required.

4.4 Business Rules

"IIITG PORTAL" is for storing students results and publish those results of particular programs.

Basically save working time and pressure.

5 Other Requirements

"IIITG PORTAL" needs maintenance as it is a long process software. It will need re-factoring and further the requirements can be changed as the field is changing frequently.