SOFTWARE REQUIREMENTS SPECIFICATION

for

TravelScout WEBSITE

Version 1.0

Prepared by : Abaan Sohail (2022-cs-824)

Submitted to : Prof. Tahlha Mubashir
Lecturer

September 19, 2024

Contents

1 Introduction

1.1 Purpose

It's time-consuming and inefficient to manage all bus booking records manually. Any booking detail can be changed, canceled, or updated at any time. For example, a bus could be rescheduled, a seat reassigned, or passengers may change their plans. With so many travelers booking tickets every day, proper management is essential. That's why TravelScout was created. TravelScout is an online bus booking platform focused on flawless seat management and advanced customer experience through a unique UI and smart recommender system. The main goal of TravelScout is to streamline bus ticketing, making it reliable, easy to use, and error-free.

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 "TravelScout WEBSITE".

1.3 Project Scope

"TravelScout WEBSITE" creates easiness for customer and bus staff in maintaining scheduling and booking.
Customer can explore all the rides that are available and select any ride he want to ride. All the availability of ride , time of departure, next depaturing time will be shown to customer with available seats. Customer can pin that seat for himself once he pays. After that no one can purchase that seat.
Office staff only post and update schedule and buses. He cannot change anyone seat or bus.
Office staff account are created by admin. Admin sole purpose is to make new office staff account.

2 Overall Description

2.1 Product Perspective

"IICT WEBSITE" 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

"IICT WEBSITE" 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.
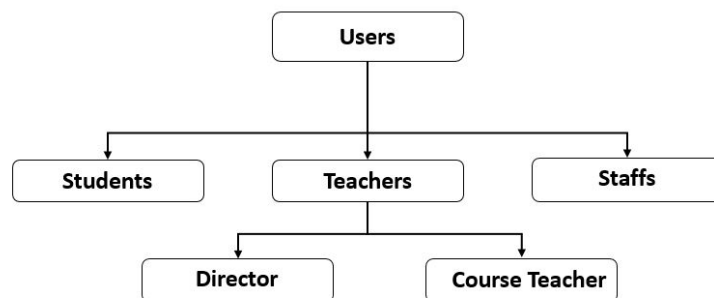

Figure 2.1: type of users

2.3 Product Functions

"IICT WEBSITE" 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
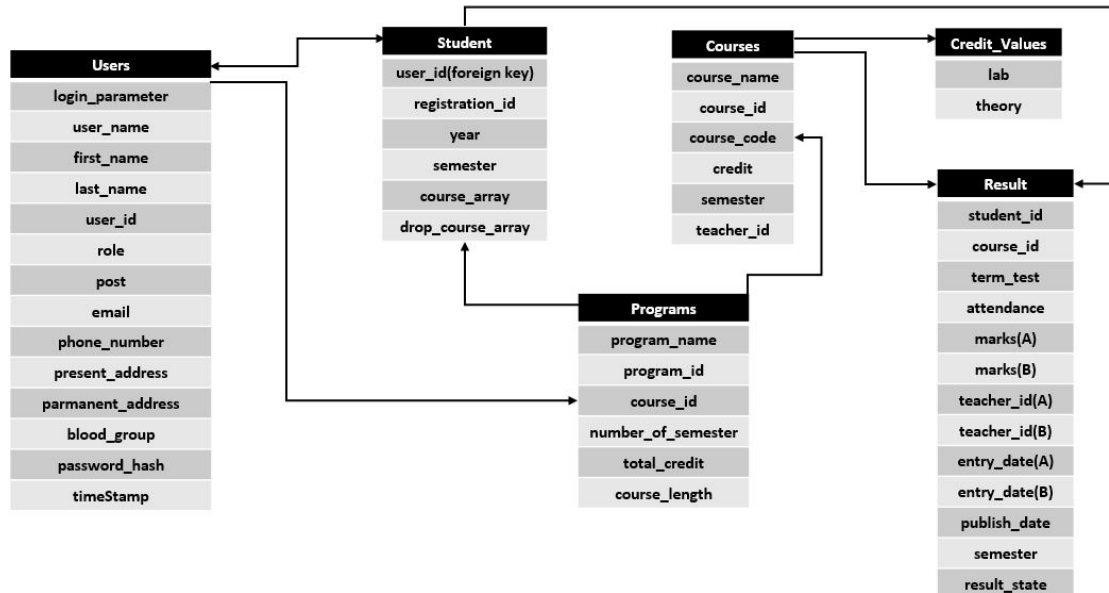

Figure 2.2: Data Flow Diagram

software 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, nunmber_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 Uniqueness

This is well made software on our own personal editor

2.6 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.
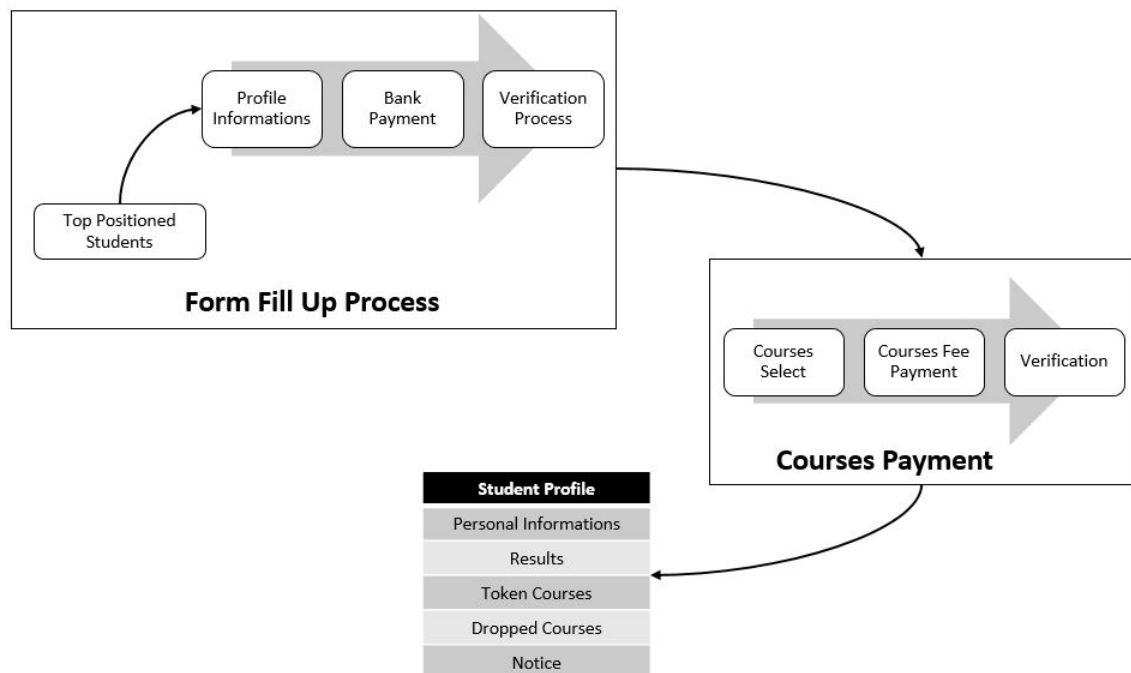
Notice will contain all the news of IICT.

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.
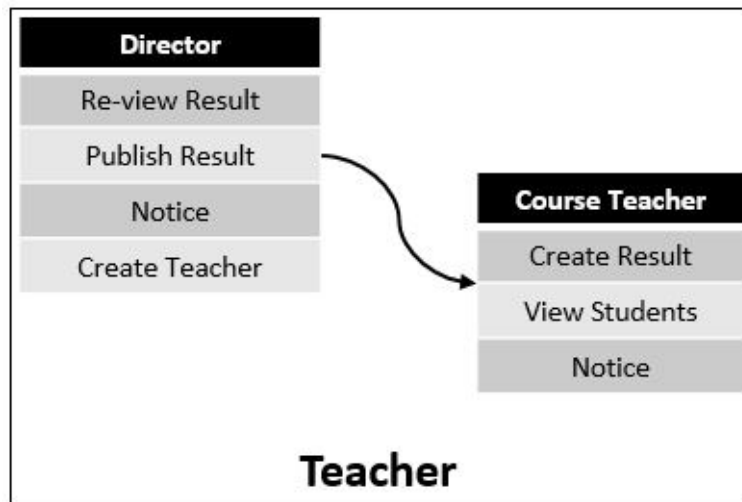Teacher creates results, view students and create notice.

Figure 2.4: Teacher Activities

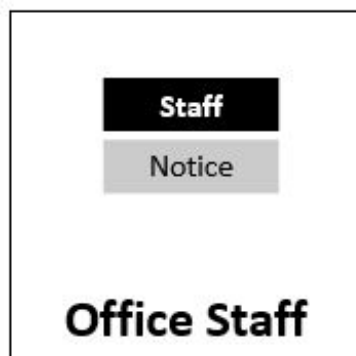Staff has only one activity -

- Notice

Figure 2.5: Staff Activities

3 System Features

"IICT WEBSITE" 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

"IICT WEBSITE" 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 "IICT WEBSITE" website is being build on .NET framework, C# language, React, React Redux, JavaScript and MongoDB.
Back-End - .NET framework, C# language.
Font-End - React, React Redux, JavaScript.
Database - MongoDB.

4 Other Nonfunctional Requirements

4.1 Performance Requirements

"IICT WEBSITE" will be used for result system of IICT programs, like - PGD, MIT.
So for more interaction .NET, React and MongoDB is used.

4.2 Security Requirements

No one without registered users can inter 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 been continued. So
that the quality of the software is been maintained and all the requirements are been
fulfilled.
Database, logical and also UI test is required.

4.4 Business Rules

"IICT WEBSITE" is for storing students results and publish those results of particular
programs.
Basically save working time and pressure.

5 Other Requirements

"IICT WEBSITE" needs maintenance as it is a long process software. It will need refactoring and further the requirements can be changed as the field is changing frequently.