

SOFTWARE REQUIREMENTS SPECIFICATION FOR <STUDENT MANAGEMENT SYSTEM>



SUBMITTED BY

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INDEX

1. INTRODUCTION

1.1. Purpose of project

1.2. Scope of project

1.3. Overview

2. Overall Description

2.1. Product Perspective

2.2. Design and implementation constraints

2.3. Software requirements

3. Flow Chart Representation

1. INTRODUCTION:

A Student Management System (SMS) is a System that manages the records of student regarding admission and examination part. A Student Management System (SMS) is designed to help collages for management of dental student. Extensive information is available at your fingertips through this System. Viewing student data, managing admission and reshuffling, managing seats, quota, board, semester, faculty, category and for examination, block allocation, subject management, scheduling exam, result and related issues are made simple and easy. There are custom search capabilities to aid in finding student information and working on student records. This can make the system easier to navigate and to use maximizing the effectiveness of time and other resources. SMS allows the keeping of personnel data in a form that can be easily accessed and analysed in a consistent way.

1.1. PURPOSE:

The project is about to handle all the information of the student regarding admission and examination. Also, it manages resources which were managed and handled by manpower previously. The main purpose of the project is to integrate distinct sections of the organization into consistent manner so that complex functions can be handled smoothly by any technical or non-technical persons.

The project aims at the following matters:

- Automation of admission and enrolment as per board, quota, category and available seats.
- Assistance in decision-making.
- To manage information of student, faculty and courses.
- Consistently update information of all the students.

The main purpose of the Admin Module is to introduce new things and configure important aspects. For example. only admin is authorized to introduce quota, board, subject, category, etc. and only admin is allowed to configure exam and set fees structure. So, the master screens for all these are visible to only admin role. This is done by the Admin Module. It also can create the users and Physical and Logical Locations. Thus, the main purpose of the Admin Module is to managing the dynamic working of the system.

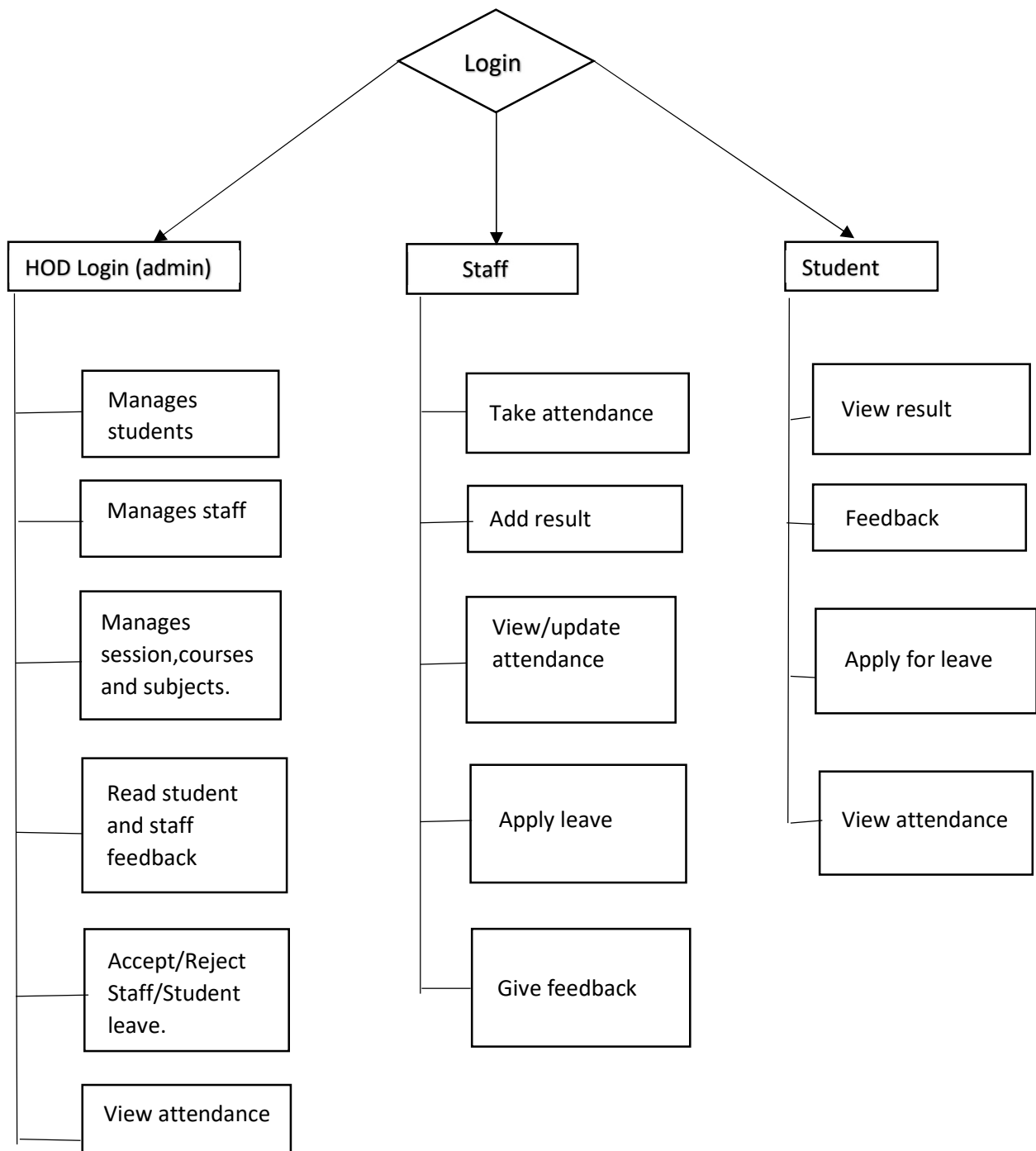
1.2. SCOPE:

The scope of the project includes the following:

- Any college can use this system as it is not client centric.
- All admission and examination related work for the student can be done using this system.
- Deliver Electronic Workplace
- Provide Bi-lingual support
- Application Support & Maintenance after deployment to production

1.3. Overview

Student Management System (SMS) is a web-based application that tracks current student's academic information. It maintains academic information for ready access by office staff, students, their faculty advisors, and committee members. Instead of tedious paper work, students will be able to submit required information electronically, and the departments will be able to evaluate the submissions with a much quicker turnaround.



2. OVERALL DESCRIPTION:

The Student Management System allows authorized member to access the records of academically registered students. It can be used in various educational institutes across the globe and simplifies the work of the institute.

2.1. Product Perspective:

The front end of the system will be developed using HTML, CSS, JS, Bootstrap and the back end of the system will be developed using Django.

2.2. Design and implementation constraints:

The Student Management System software is designed in such a way that the user can easily interact with the screen because of the GUI. The HOD, administrator and student are the three users who use the project. The HOD and admin both insert the details of the students and the fee details that the students have paid. User/ student can view his/her details, update if required and check the fee details.

2.3. Software Requirement:

- PyCharm
- Python

2.3.1. PyCharm:

It is an integrated development environment used for programming in Python. It provides code analysis, a graphical debugger, an integrated unit tester, integration with version control system, and supports web development with Django. PyCharm is developed by the Czech company JetBrains.

It is cross-platform, working on Microsoft Windows, macOS and Linux. PyCharm has a professional Edition, released under a proprietary license and a Community Edition released under the Apache License. PyCharm community edition is less extensive than the Professional Edition.

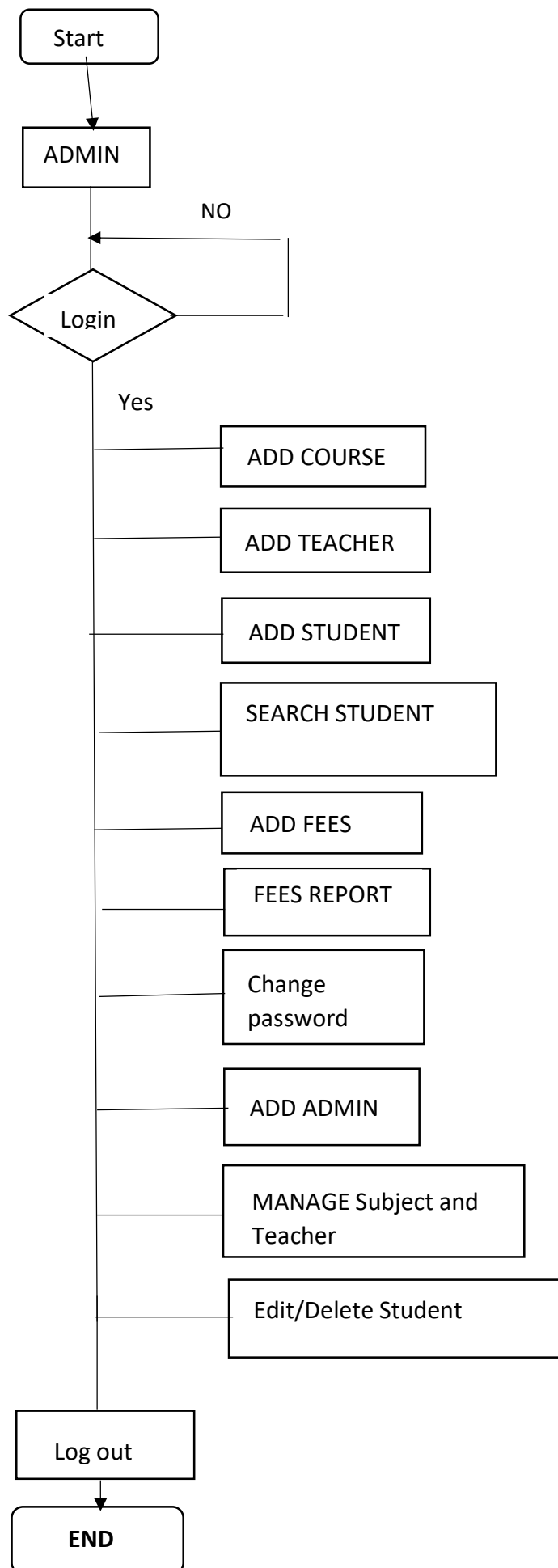
2.3.2. Advantages of PyCharm: -

- There are a lot of useful plugins and productive shortcuts in PyCharm.
- It integrates library and IDE features such as auto-completing and coloring.
- It allows viewing of the source code in a click.
- Software development is much faster using PyCharm.

2.3.3. FEATURES OF PYCHARM:

- Coding assistance and analysis, with code completion, syntax and error highlighting, linter integration, and quick fixes.
- Project and code navigation: specialized project views, file structure views and quick jumping between files, classes, methods and usages.
- Python code refactoring: including rename, extract method, introduce variable, introduce constant, pull up, push down and others
- Support for web framework: Django, web2py and flask integrated python debugger integrated unit testing with line-by-line coverage Google App Engine Python development
- Version control integration: unified user interface for Mercurial, Git, Subversion, Perforce and CVS with change lists and merge.
- Scientific tools integration: integrates with I Python Notebook, has an interactive python console, and supports
- Anaconda as well as multiple scientific packages including Matplotlib and NumPy

Flowchart of Student Management System: -



THANK YOU