SOFTWARE REQUIREMENT SPECIFICATIONS

1.1 Overall Description

The proposed system has been designed to support the day to day functionality of the systems in an organization. It supports a very important job of the Counselor to maintain the documents and personal information of students. It is, thus, designed to greatly reduce the burden of manual work of keeping maintaining documents of student’s personal information, attendance shortage, grade, registration details, etc by a counselor. Student’s documents like medical certificate, attendance shortage in any subject are maintained in the system. All the above information are updated periodically and maintained.

1.2 Specific Requirements

Specific requirement specification is a document usually used in software engineering that specifies the requirements the user expects from software to be constructed in a software project. The system requirements giving the requirements to be met in the design of a system or subsystem. These requirements represent the ideal situation in which to run the software. The requirements of the Counselor Management System are to develop:

* A website for Counselors to manage the counseling and documents of mentees.
* A website portal where a counselor can send notifications to mentees for counseling.
* A portal for students to upload documents that will be directly sent to the respective counselors.
* A website for students to inform the counselors if there is any grievance through the portal.
* Generating the reports of the students.
* Sending NSSR and NSAR of students to respective counselor.

1.2.1 Functional Requirements

Functional requirements directly support the user requirements by describing the processing of the information as inputs or outputs. Most of the requirements definition focuses mainly on functional requirements, which are based upon the expected functioning of the product system to be created.

The main user groups and access levels are:

1. Administrator
2. Counselor
3. Students
4. Teacher

Therefore, the requirements could be efficiently analyzed depending on the user group and the functionalities they should be allowed to perform

2.2.1.1 Functional Requirement – Administrator

Functional requirements of the administrator involves the various facilities and privileges available to him/her. Since these functionalities are exclusively accessible only to the admin, any unauthorized access would have detrimental effect on the functioning of the system, it can be accessed only with a secure username and password.

* Adding, Updating, Deleting student details, counselor’s details and respective faculty details.

2.2.1.2 Functional Requirement – Counselor

Functional requirements of the counselor is to manage all the counseling and verify the document uploaded. Since these functionalities are exclusively accessible only to counselor and any unauthorized access would have detrimental effect on the functioning of the system, it is developed as a separate portal that can be accessed only with a secure username and password.

A Counselor can

* Access student’s personal and academic information.
* Send notification to students for counselling through the system.
* Generate filtered report of student.

2.2.1.3 Functional Requirement – Student

Functional requirements of the student involves uploading the documents and to inform the counselor if there is any grievance. Students can also view their personal and academic progress, and therefore a separate portal is created to students.

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* Students are given access to update registration details every semester.
* Students grievance redressed are recorded and notifications are sent to counselors.
* Students can upload the documents like medical certificate and other types of documents

. 2.2.1.4 Functional Requirement – Teacher

It is developed as a separate portal that can be accessed only with a secure username and password.

* Functional requirements of the teacher involves sending NSSR and NSAR lists to the respective counselor.

1.2.2 Non- Functional Requirements

1.2.2.1 Security Requirements

It is of utmost importance to ensure that there is protection against unauthorized access admin page. Counselor and student must be provided with a login ID and password which grant access only to their respective portal.

1.2.2.2 Performance Requirement

The minimum Windows version required is Windows XP, so that the PHP and MySQL functions work seamlessly. Also it ensures multiple sessions of the same application can run at the same time and easy and fast generation of reports based on requirement.

1.2.3 Design Constraints

The designers must design the database in such a way that any change in the information of a client should be updated and saved effectively in the database despite the fact that multiple clients access the database.

1.2.4 Hardware Requirement

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This section defines any hardware interfaces that are to be supported by the software, including logical structure, expected behavior, etc. Software requirements deal with defining software resources requirements and prerequisites that need to be installed on a computer to provide optimal functioning of an application. The minimum hardware requirements are as follows:

* Operating System: Windows, Ubuntu
* RAM: 512 Mb or more
* Hard Drive: 2 GB or more

1.2.5 Software Requirement

The section describes software interfaces to other components of the software system. There are components reused from another application. But with which this software application must interact. The software requirements are as follows:

* Front End: PHP, JavaScript, HTML, CSS.

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* Server side scripting: PHP
* Back End : WAMP server
* Operating System :Windows XP or above

1.2.6 Interfaces

This system has three types of interfaces – one for the admin, one for the counselor and the other for student. The admin interface allows the admin to login and add a new counselor, student and a teacher. It allows them to assign a particular counselor to a particular student. The counselor interface allows the counselor to create new counseling and verify the documents uploaded by students. The student interface allows the student to upload and also to view the documents uploaded.

1.2.6.1 User Interfaces

The database designed should be very easy to use and user friendly. It provide an effective amalgamation between ease of use security and confidentiality features.

* Only the counselor can lodge new counseling.
* Only the students can upload the documents that can be viewed and verified by counselor.
* An administrator can view all the documents uploaded and also the counseling.
* An administrator can also add, edit or delete counselor and students.
* An counselor can also generate report of overall on a particular student.

1.2.6.2 Communication Interfaces

Communication between database and front end pages is through PHP, which is auto configured application for virtual server in a computer which is automatically configured. WAMP is a Windows web development environment which allows the user to create web applications with Apache2, PHP and a MySQL database. Alongside it, PhpMyAdmin also allows for easy management of databases.