***SOFTWARE REQUIREMENTS SPECIFICATION (SRS)***

on

**DepartmentCurrent/update Information System**

**Case tools Lab**

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**SOFTWARE REQUIREMENTS SPECIFICATION (SRS)**

**1.Introduction:**

The software requirement specification is a document that describes the external requirement for any system. The requirement analyst has to identify the requirements by talking to the clients and understanding and responding to their needs. The requirement phase translates the ideas of clients into a formal document. The inputs are gathered from different resources. Input given by the clients may not be consistency. It might change according to the modern requirements.

**1.1 Overview:**

This document contains the Software Requirements Specification (SRS) of an Online **Department current/update Information System**.A **Department current/update information system**is a web application for education establishments to manage student data. **Department current/update Information Systems** provide capabilities for entering student schedules details, and other assessment scores through an electronic grade book, building student schedules, tracking student attendance, and managing many other student-related data needs. There are also HOD, Teacher,Staff current activity information put in respective Department in college.

**1.2 Scope**:

This project is aimed at how the institute can improve the efficiency of the services. **Department current/update Information System** is one of the application to improve the information of any particular student , Teacher and Staff respective department. This application involves almost all the features of the information system to retrieve the data of any particular Student , Teacher and Staff.The future implementation will be online help for the users to obtain information.

**1.3 Document Conventions:**

This project is aonline menu driven program. When we click the main menu(home page) the sub menus or different forms will be enabled.

**1.3 .1 Definitions, Acronyms, Abbreviations:**

The project consists of the following modules.

* **Masters**

This module is suppose to hold the schedule of any particular Student , Teacher and Staff.

* **Attendance**

This module is suppose to hold the total number of classes held and the total number of classes attended by any student.

* **Examinations**

This module is suppose to hold the examination details or the marks scored by the students in the examination held.

* **Reports :**This module gives the whole details of the students attendance report and the of the students marks report.

**1.4 References:**

The needed requirements for this project has been obtained from the database of **NATIONAL INSTITUTE OF TECHNOLOGY , TRICHY** and also gathered some of the information by asking questions.

**1.4.1 Assumptions and constraints:**

**1.4.1.1Assumptions**

* The system is not required to save generated reports.
* The code should be free with compilation errors/syntax errors.
* The details must have an interface which is simple enough to understand.
  + - 1. **Constraints**
* Internet connection is required.
* The constraints of this project are the system must support the latest web browser and must be able to run all the forms.

**2. Overall Description:**

This section of the SRS describes all general factors of the product and its requirements.

## 2.1 Product perspective:

**Online Department current/update Information System** is independent and dynamic website. This application stores all the information in the database which can be retrieved whenever needed and all the validations are performed during the entry of the data by the user thus ensuring that the user can not enter any wrong data which could cause problem later.

## 2.2 Product Features:

This section outlines all the main feature of **Department current/update Information System.**

**2.2.1 Student role:**

In the project Student can access their current Attendance,marks in defferent exam ,check current schedules which are updated by Teeacher.

### 2.2.2 Teachers Role:

In the project Teachers canupdate of the students’s current Attendance,marks in defferent exam ,update schedules which are suddenly.

### 2.2.3 Staff Role:

In the project Staff canmaintainance of the respective Department and give current information about department.

* 1. **User Class and Characteristics:**

The user of this program is supposed to be fairly educated about the usage of the compters. The user should understand how to get the data through the system. A person who has no knowledge of computer will find it difficult to understand the system. But with a little knowledge it will be very easy to handle the project.

* 1. **Design and Implementation Constraints:**

The system need to design base on the existed code and database using HTML, PHP and Templates.

**2.4.1 Software Constraints:**

* XMAPP Server, PHP 5.2, HTML,CSS, Mozilla,NetBeans
* My SQL

**2.4.2 Hardware Constraints:**

* 80 GB hard disk and above
* 1 GB RAM
* Dual Core and above processor

**2.5 Assumptions and dependencies:**

Although basic password authentication and role based security mechanisms will be used to protect from unauthorised access;

Redundant Database is setup as the role of backup Database Server when primary database is failure.

### 3.External Interface Requirements:

### 3.1 User Interface:

### User class – Student

Change Detail: Student can change detail if information is incorrect such as telephone number.

Change Password: Student can change his login password at any time for security reason.

Forget password: Student can request his password if he/she forgotten the password.

### User class –Staff

All staff can view the details of any student.

Change Student Detail: Staff can change student detail for incorrect information.

View Student Detail: Staff can view student information and monitor their progress.

List Student : Staff can list all students in different semester of different group.

* **User class – Teacher**

.Attendance Update

Marks

News About classes

### 3.2 Hardware Interfaces:

#### Server Side

The web application will be hosted on one of the department’s windows servers and connecting to one of the MySQL Database server.

#### Client Side

The system is a web based application; clients are requiring using a modern web browser such as Mozilla Firebox 13, and Enable Cookies. The computer must have an Internet connection in order to be able to access the system.

### 3.3 Software Interfaces:

#### Server Side

The apache server required to host a PHP web application. A development database will be hosted locally (using MySQL).

#### Client Side

An OS is capable of running a modern web browser which supports HTML version 4**or higher.**

**3.4 Communications Interfaces:**

The HTTP protocol will be used to facilitate communications between the client and server.

# 4. System Features:

**4.1 System Feature 1:**

Department Information System will allow the user to view the attendance, marks details of the students. This is a medium priority system feature.

**4.1.1 Description and Priority:**

The interface will be presented to the user in a web browser. The interface must remain consistent among various web browser and be intuitive to the customer.

**4.1.2 Stimulus/Response Sequences:**

* Server passes requests
* Server submits request to service
* Service picks up request
* Service runs task
* Service returns results
* Server checks for the completion

**4.1.3 Functional Requirements:**

**4.1.3.1 Module 1:Masters**

This module is suppose to hold the Student ,teacher and Staff activity

Input: The user is supposed to make selection of the list given.

Output: The admin gets the activity of the Student ,teacher and Staff.

**4.1.3.2 Module 2:Attendance**

This module is suppose to hold the total number of classes held and the total number of classes attended by any student.

Input: The user is supposed to make selection of the sub modules and choose the options.

Output: The attendance details of the students will be shown.

**4.1.3.3 Module 3:Examinations**

This module is suppose to hold the examination details or the marks scored by the students in the examination held.

Input: The user should make the selection of examination.

Output: The marks details of the student will be shown to the user.

**5. Other Non Functional Requirements:**

**5.1 Performance Requirements:**

The system is supposed to be having good memory space and a bigger RAM above 1000MB preferably. The system shall be able to add more details.

**5.2 Safety Requirements:**

The system will do periodic backups through a live internet connection.

**5.3 Security Requirements:**

The system shall encrypt all studentsteachers and staff data in the dabase.

**5.4 Software Quality Attributes:**

**5.4.1 Security:**

The system needs to log client’s information of registration such as IP address and time for security purpose.

Password should encrypted and store in the database.

**5.4.2 Maintainability:**

The system developing using Struts, all record stores in MySQL Database, that easy to modify and make update.

**5.4.3 Portability:**

The web application is coding in PHP and MySQL, therefore, it should be transferable between different Operation System.

**5.4.4 Testability:**

The system must be able to run under debug mode.

**5.4.5 Reusability:**

The coding can be used whenever needed throughout the development of the project instead of writing the code again and again.

**6. Other Requirements:**

No Other Requirements