**Software Requirements Specification**

**for**

**Student Database Management System**

**Balkrishna Ravada**

**Ankit Yadav**

**VESIT College**

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**Table of Contents**

**Table of Contents ii**

**Revision History ii**

**1. Introduction 1**

1.1 Purpose 1

1.2 Document Conventions 1

1.3 Intended Audience and Reading Suggestions 1

1.4 Product Scope 1

1.5 References 1

**2. Overall Description 2**

2.1 Product Perspective 2

2.2 Product Functions 2

2.3 User Classes and Characteristics 2

2.4 Operating Environment 2

2.5 Design and Implementation Constraints 2

2.6 User Documentation 2

2.7 Assumptions and Dependencies 3

**3. External Interface Requirements 3**

3.1 User Interfaces 3

3.2 Hardware Interfaces 3

3.3 Software Interfaces 3

3.4 Communications Interfaces 3

**4. Functional Requirements**

**5. Other Nonfunctional Requirements 4**

5.1 Performance Requirements 4

5.2 Safety Requirements 5

5.3 Security Requirements 5

5.4 Software Quality Attributes 5

5.5 Business Rules 5

**6. Other Requirements 5**

**Introduction**

* **Purpose**

The purpose of this document is to present a detailed description of student database Management System. It will explain the purpose and features of software, the interfaces of the software, what the software will do, the constraints under which it must operates and how the software will react to its external stimuli. This document is intended for both the end users and developers of the software.

* **Document Conventions**

The following documentation conventions are followed to preparing this SRS:

* All key-words related to the academics are formatted in italics.
* SRS -Software Requirement Specification
* **Intended Audience and Reading Suggestions**

This is document is created for.

* The Instructors of course ‘Mater in computer Application’ for their review and monitoring progress of the project.
* The software development team for their use in analyzing the requirements.
* **Product Scope**

The scope of the to-be developed ‘Student Database Management System’ software package is:

* To cater to All type of courses offered by the Administration of VESIT to its students.
* To cater to the need of a suitable interface of all students and teachers of an offered course.
* To facilitate result to students of their respective subjects assigned by teachers.
* To facilitate administration to view any details of student quickly.
* **References**

The following references are used in preparing this SRS:

* Software Requirement Specification Template provided by IEEE.
* Slideshare.net

**Overall Description**

* **Product Perspective**

The Product Student Database Management system is an independent product and does not depend on any other system Except Xampp and MySQL for storing Data. This product will automate various tasks associated with handling student details, teacher details, result of students and better organizing the stored information and optimum performance, thus helping the College to smooth working of these processes.

* **Product Functions**

Our system has two types of Accessing Modes

1. Administrator

2. Users

2.1 Teacher

2.2 Student

* Administrator:

Student Database Management is managed by Administrator. Administrator has to updated and monitored the registered Student and Teacher details, add a new student and teacher records, Update Student and Teacher records and Delete student and teacher records. Administrator can update both student and teacher profile and also provide the result to students.

* User:

There are two users:

* Student:

User can only view their personal details, subjects assigned, and can edit their personal information.

* Teacher:

User can add their subject information and marks obtained by the students in the respected subject.

* **User Classes and Characteristics**

The software gives access to three kinds of users.

* Administrator: The Personnel and college administrator will have administration access to add, delete and modify information stored in the database.
* Authorized User(Teacher): Teaching staff will have access to only view the data stored in the database and can update the students Marks obtained in their respective subject.
* Authorized User(Student): Student can update there personal profile and also can view there result.
* **Operating Environment**
* Any operating system.
* Any software where GNU/GCC compiler present(eg. Code blocks,Turbo C++)
* MySQL with PHP Xampp to store data in database.
* **Design and Implementation Constraints**

The design time constraints are

* The software package should be designed so as to handle the access by ~10 teachers,1 Admin and ~120 students concurentally.
* **User Documentation**
* This software package will come with user’s manual as a guide to its interface actions.
* The details of Analysis, Design and Test Cases.
* **Assumptions and Dependencies**
* We assume that the office admin will do all the data entry based and correct values obtained by the admission forms.
* Administrator should be careful in deleting or modifying any information knowingly or unknowingly which will lead to inconsistency of the database.

**External Interface Requirements**

* **User Interfaces**

The Set of user interface consist of,

* To log in to their respective accounts.
* To add and modify their respective data
* To publish the Result to students by Admin
* **Hardware Interfaces**

|  |  |
| --- | --- |
| Hardware Environment | Dual Core 2nd Generation or more |
| System configuration | RAM-512 MB/ HDD-80GB |
| Operating System | any |

* **Software Interfaces**

|  |  |
| --- | --- |
| Front End | PHP 5.3.0 or more |
| Back End | MySQL 5.1.36 |

* **Communications Interfaces**

The Machine will have to be part of the college local area network to access the central database.

**Functional Requirements**

* The administrator will be given more powers(add,delete,modify) than other users.
* It will be ensured that the information entered is of the correct format. For example name cannot contain numbers. In case if incorrect form of information is added then the user will be asked to fill the information again.
* The System can be accessed at any time.

**Other Nonfunctional Requirements**

* **Performance Requirements**

The proposed system that we are going to develop will be used as the Chief Performance System for providing college to managing the whole database of the student studying in the organisation.

There for it is expected that the database would perform functionally all the requirements that are specified.

* **Safety Requirements**

The Database may get crashed at any certain time due to virus or operating system failure. Therefore, It is required to take the database backup.

* **Security Requirements**

We are going to develop a secured database. These are different Categories of users namely Administrator. Student who will be viewing all or some specific information from the database.

Depending upon the category of user the access rights are decided. It means if the user is an Administrator then he/she can be able to modify the data,append,etc. All other users only receive the information about database.

* **Software Quality Attributes**

NIL.

* **Business Rules**

NIL

* **Other Requirements**

*NIL*