StudenTracker Software Requirements Specifications

1.0 Introduction

1.1 Project Overview

This SRS describes the function and performance requirements for the StudenTracker system. The StudenTracker is a dynamic grading application for students, teachers, and parents that is more user-friendly and functional than any existing applications currently on the market.

1.2 Scope of the Development Project

The StudenTracker project is going to be an interactive web site that will allow teachers to keep attendance and grading in an online location where anyone in the school or the students’ parents can access it. It will allow teachers to create assignments with any number of points, break it down into categories (tests, homework, class work). The program will be able to keep track of detentions completed and outstanding. Teachers will be able to write notes to parents. Having all of the students information in one location will cut down on miscommunications and will allow other teachers and faculty to look up a student and everything regarding them.

The only limitation of this program will be that the user has to be connected to the internet to utilize it.

Some of the inherent functionality is listed below:

- Substitute system
- Email integrated
- Library system (possibly e-reserve system)
- Lesson Plan set up and browse by parents and other teach (Possibly just and uploaded)
- School District Calendar
- Attendance
- Summary of all classes
- Student Information
- Grades
  - Curve
  - Weighted
- Spread sheets of information

1.3 Definitions, Acronyms and Abbreviations

CSS - Cascading Style Sheets

DB - Database
GUI - Graphical user Interface

HTML - Hypertext markup language

PHP - Pre Hypertext Processing

1.4 References

Gygi, Jennifer A. Health/Gym Teacher and Cheer Coach Tooele School District

"SitePoint Build Your Own Database Driven Website using PHP & MySQL" - Kevin Yank

1.5 Overview of Document

Section 2 provides a general description of the project including user group personas, product perspective and an outline of various requirements.

Section 3 describes specific requirements of our project, such as, external interface requirements and functional and quality requirements.

2.0 General Description

2.1 User Personas and Characteristics

Persona 1: Students – These users will range in age from possibly 8-18 years old and will have a wide range of computer skills from basic to advanced. Their goal in using this software will be to access their grades and attendance to ensure there are no discrepancies.

Persona 2: Teachers – These users will also have a wide range of both age and computer user skills. Their goal in accessing the program will be to input grades, create lesson plans, input attendance and tardiness.

Persona 3: Parents - These users will also have a wide range of both age and computer user skills. Their goals in accessing the program will be to check up on their student and ensure that their kids are attending school and keeping up with their homework assignments.

Persona 4: General School Administration (i.e. Principal, Secretaries, etc.) – These users should have a little more computer literacy than an average user. Their goals in using this program will be to follow up with students parents for absences, detentions, create classes, and input/change personal student data.

2.2 Product Perspective

This product is a stand-alone project. It will incorporate some of the existing functionality of other similar products and make them better and more user friendly.

2.3 Overview of Functional Requirements
1.1 Input/Modify/Display Grades to/from Database

1.2 Input/Modify/Display Attendance to/from Database

1.3 Input/Modify/Display Detentions to/from Database

1.4 Input/Modify/Display Lesson Plans to/from Database

1.5 Input/Modify/Display Student Information to/from Database

1.6 Locate/Track Substitute Teachers

1.7 Update/Create/Display School District Calendar

1.8 Display a student’s summary of all classes/grades/attendance/detentions

1.9 Modify grades according to curves/weight

2.0 Access/Modify/Display school library data

2.1 Send/Receive Email

2.4 Overview of Data Requirements

All of the data below will need to be able to be input, output and stored by our system.

- Student Data
- Attendance Data
- Substitute Data
- Detention Data
- School Activities Data
- Library Data
- Login/Password Data from User Groups

2.5 General Constraints, Assumptions, Dependencies, Guidelines

This product is web-based and will require an account to be setup before access is granted.

2.6 User View of Product Use

All users will go to the website and will use their username and password to log into the site where depending on the user they will have access to different functionality. All users will be able to send/receive email and access the library system. Teachers can create assignments, post grades and attendance, and create/modify lesson plans. Students and parents will be able to log into and view the students’ grades and attendance by class as well as detentions and school district calendars. School administration users will be able to modify/create student data, create classes, update library information, track/assign detentions.
3.0 Specific Requirements

3.1 External Interface Requirements

- operator/user interface characteristics from the human factors point of view
  
  The user interface of StudenTracker will be intuitive so that users with any level of computer skills will be able to use it.

- characteristics required of the interface between the software product and each of the hardware components
  
  Our software product will be web based so there will be no other interface with hardware systems that are not normally associated with web based interactions.

- interfaces with other software components or products, including other systems, utility software, databases, and operating systems
  
  StudenTracker uses MySql and PHP which interfaces with whichever operating system the user prefers.

3.2 Detailed Description of Functional Requirements

3.2.1 Registration/Login/Logout User Interface

<table>
<thead>
<tr>
<th>purpose</th>
<th>Allows a user to login/logout or create a new account</th>
</tr>
</thead>
<tbody>
<tr>
<td>inputs</td>
<td>The user will have to have/create a unique login/password to access their individual account. The login/password will have certain parameters that must be met to ensure safety or personal information.</td>
</tr>
<tr>
<td>processing</td>
<td>The users’ data will be accessed/created using MySQL database with encryption</td>
</tr>
<tr>
<td>outputs</td>
<td>the output will allow the user to create/access their account as long as the input parameters were met successfully</td>
</tr>
</tbody>
</table>

3.2.2 Access/Update/Display Information from Database 1.1-2.0

| purpose | Allows a user to access/update/view information stored in the database. |
The user description will determine which features of the database they are allowed to access/update.

The data that is modified will be stored in the MySQL database, or data will be retrieved from the database for viewing.

The output will display according to what was accessed or modified within the database.

### 3.2.3 Send/Receive Email 2.1

| purpose | This system will have its own internal email system in place to allow parents/teachers/students/faculty to directly interface with one another. |
| inputs | The system will have a global address system that is updated/managed via the MySQL database. |
| processing | Emails will be generated/read through this system. The email system will also incorporate a forwarding system so users will be able to forward emails to their regular email addresses if so desired. |
| outputs | Email messages. |

### 3.3 Performance Requirements

The amount of space and speed will need to keep up with the number of users this system acquires.

### 3.4 Quality Attributes

Security, availability and reliability will be consistent with current industry standards regarding secure web transactions. Maintainability will be implemented in every aspect of the design so that as the number of users increases the product will be able to expand to meet new users’ needs.

### 3.5 Other requirements

There are no other requirements at this time.