iSNAP2Change

Internet-Based Intervention Program

Database Documentation

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# **1. Introduction**

For this section, it gives a general description and overview of everything included in SRS document. The section also describes the purpose of this requirement document and provides a list of abbreviations and definitions.

## **1.1 Purpose**

The purpose of the SRS document is to give detailed description of requirements for the “iSNAP2Change” web application. The document is intended to describe the purpose of the system and how to design and develop the system. The document will detail the analysis and design model of the system. It will help the team to implement and check the function of the system.

## **1.2 Scope**

The Software Requirements Specification describes all requirements in the document. The “iSNAP2Change” web application is a highly interactive application. It is a web application that provides the students in the school with a wide range of supplementary material including games, media content and ability to interact. Also, teachers can monitor students’ progress and grade their short answer questions and bonus tasks.

The “iSNAP2Change” web application is supposed to have following features.

1) The product is designed for the iSNAP2Change program and runs all day.

2) The system provides log on facility to the users.

3) The system allows students to complete weekly tasks including video watching, game playing, quiz and short answer questions.

4) The system allows students to complete bonus tasks.

4) The system allows students to check their avatars’ status including progress, score, rank and so on.

5) The system allows teachers to monitor students’ progresses and grade students’ short answer questions and bonus tasks.

6) The system allows teachers to answer students’ questions through the forum.

These features that are described in the SRS document are for the future phases of the software development cycle. These features meet the requirement of all users. Thus, the success criteria for the system is based in features in the document are implemented in the system.

## **1.3 Definitions, Acronyms, and Abbreviations**

# **4. Database Design**

## **4.1 Table Explanation**

### 4.1.1 School

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Further Explanation** | **Type** | **Constraints** |
| SchoolID |  | MEDIUMINT | PK |
| SchoolName |  | TEXT |  |

### 4.1.2 Class

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Further Explanation** | **Type** | **Constraints** |
| ClassID |  | MEDIUMINT | PK |
| ClassName |  | TEXT |  |
| SchoolID |  | MEDIUMINT | FOREIGN KEY REFERENCES School (SchoolID),  NOT NULL |

### 4.1.3 Token

Each class will receive two unique tokens: a student token and a teacher token. They must use the token to identify their classes to register. This can prevent unrelated visitors from registering into the website and it can prevent students from registering a teacher account or an account for other classes.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Further Explanation** | **Type** | **Constraints** |
| TokenID |  | MEDIUMINT | PK |
| Type |  | TEXT | NOT NULL |
| TokenString |  | TEXT | NOT NULL |
| ClassID |  | MEDIUMINT | FOREIGN KEY REFERENCES Class (ClassID),  NOT NULL |

### 4.1.3 Researcher

Each class will receive two unique tokens: a student token and a teacher token. They must use the token to identify their classes to register. This can prevent unrelated visitors from registering into the website and it can prevent students from registering a teacher account or an account for other classes.

|  |  |  |  |
| --- | --- | --- | --- |
| **Column** | **Further Explanation** | **Type** | **Constraints** |
| TokenID |  | MEDIUMINT | PK |
| Type |  | TEXT | NOT NULL |
| TokenString |  | TEXT | NOT NULL |
| ClassID |  | MEDIUMINT | FOREIGN KEY REFERENCES Class (ClassID),  NOT NULL |

## C:\Users\ABS\AppData\Local\Temp\WeChat Files\852919927665240242.jpg**4.1 ER Diagram**

## **4.2 Schema**

SCHOOL (SchoolID, SchoolName)

CLASS (ClassID, ClassName, SchoolID@)

TOKEN (TokenID, Type, TokenString, ClassID@)

STUDENT (StudentID, Username, Password, FName, LName, Gender, DOB, Score, ClassID@)

TEACHER (TeacherID, Username, Password, FName, LName, ClassID@)

RESEARCHER (ResearcherID, Username, Password, FName, LName)

FACT (FactID, Content)

VIDEO (VideoID, TimeThreshold, URL, Week, Points)

VIDEO\_RECORD (VideoID@, StudentID@, Finished)

READING (ReadingID, TimeThreshold, Content, Week, Points)

READING\_RECORD (ReadingID@, StudentID@, Finished)

GAME (GameID, Description, Week, Points)

GAME\_RECORD (GameID@, StudentID@, Finished)

QUIZ (QuizID, Week, Points)

QUIZ\_RECORD (QuizID@, StudentID@, Finished)

QUIZ\_QUESTION (QuestionID, Question, CorrectChoice, QuizID@)

OPTION (OptionID, Content, QuestionID@)

QUIZ\_QUESTION\_RECORD (StudentID@, QuestionID@, Choice)

SHORT\_ANSWER\_SECTION (ShortAnswerID, Week)

SHORT\_ANSWER\_SECTION\_RECORD (ShortAnswerID@, StudentID@, Finished)

SHORT\_ANSWER\_QUESTION (SAQID, Question, Points, ShortAnswerID@)

SHORT\_ANSWER\_QUESTION\_RECORD (StudentID@, SAQID@, Answer, Feedback, Grading)

BONUS (BonusID, Week)

BONUS\_RECORD (BonusID@, StudentID@, Finished)

BONUS\_TASK (BonusQuestionID, Question, Points, BonusID@)

BONUS\_TASK\_RECORD (StudentID@, BonusQuestionID@, Answer, Feedback, Grading)