Project Report

Smart Study

Contents

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# Definition of the Problem

Create <problem definition> for the Website that is to be developed.

You should record your problem definition in the document ‘**Problem Definition Document SWD/Form No. 1'** given in the Documentation Section of this Project Template.

# Requirement Analysis

This phase consists of following:

### List of inputs to the system

* + - **List of outputs expected from the system**
    - **Overview of processes involved in the system**
    - **Hardware and software required for implementing the project**
    - **Customer’s acceptance criteria for the project**

You should record customer acceptance in the document '**Customer Acceptance Criteria (CRS) SWD/Form No. 2A'** and **'SWD/Form No. 2B'** given in the Documentation Section of this Project Template.

You must create a ‘**Project Plan’** and fill your **Project Plan** details in the document ‘**SWD/Form No. 3’**

given in the Documentation Section of this Project Guide.

# Design Phase

Design phase involves the preparation of the blueprint of the proposed system.

### Designing the GUI Standards

Multiple Web pages may be created for implementing the project and linked to each other. Each of these Web pages or forms should have a consistent look with respect to appearance and theme used. The font styles, color of the labels, design and appearance of the command buttons, the appearance of header and footer, and the design and size of controls, such as check boxes or text boxes should be consistent through all the pages.

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You should record the GUI standards in the **'GUI Standard Document SWD/Form No. 4'** given in the Documentation Section of this Project Guide. Also, you should record the **'Interface Design Document SWD/Form No. 5 and 6'** given in the Documentation Section of this Project Template.

### Assigning and Monitoring Tasks

You are expected to fill the Task sheet as shown in the document ‘**SWD/Form No. 7**’ given in the

Documentation Section of this Project Template.

You should fill the final checklist in the document ‘**SWD/Form No. 8**’ given in the Documentation

Section of this Project Template.

# Architecture of Website

Figure 1.1 displays the application architecture.

**SiteMap**

### Figure 1.1: Application Architecture

**Figure 1.2: SiteMap**

# Evaluation/Testing

This is the most crucial phase where each unit is tested for its functionality. Test data is used to check if the module is able to process it without causing any errors. Test data may be live data extracted from existing records in the system or dummy data. Then, the individual tested modules are integrated and tested as a whole through its various paths. During this phase, the Project leader reviews the developed system against each of the Customer Requirement Specifications and thus, ensures that the developed system is able to resolve the Problem Definition completely.

After finishing the project, give it to your peers for testing the entire project. The project should be verified for the data entered by the customer in the various forms. The findings can be records in the document '**SWD/Form No. 8**.

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# Project Tracking and Monitoring Activities

Conduct a review to understand the project status and record the findings of the **Project Review** in the

document ‘**SWD/Form No. 9'**, given in the Documentation Section of this Project Template.

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# Documentation Section

* Various forms required in the project

|  |  |  |
| --- | --- | --- |
| **Design Plan:** | **Document Name:**  **Problem Definition Document** | **SWD/Form No. 1** |
| **Effective Date:** | **Version: 1** | **Page No.** |

Education is a primary necessity and for Parents/Guardians to be updated about their wards, progress is even more important. Students who fail in exams might not reveal their marks to their Parents/Guardians because of fear. Teachers too are overloaded with work, because of which it becomes difficult to remember each child’s academic progress. Also, students too must be kept aware about their score progress and marks required for passing External Exams. A mobile application to track and update all these is a solution.

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|  | **Prepared By (Student)** |
| **Date** |  |

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| **Design Plan:** | **Document Name: Customer Acceptance Criteria (CRS)** | **SWD/Form No. 2A** |
| **Effective Date:** | **Version: 1** | **Page No.** |

Client/Project Undertaken:

### List of inputs to the system

**Parents, Students: Login credentials, basic information for registration.**

**Teachers: Login credentials, input marks, resources for students and parents to view their marks and look up to study resources.**

1. **List of outputs expected from the system**

**Parents, Students: Table of students’ marks, study resources**

**Teachers: Overview of students’ marks;**

1. **Overview of Processes involved in the system**

**When users logged in, the app takes login credentials and compare them with the values from Firebase data. If the credentials were correct, the users may continue to use the app. If not then the app turns back to the login screen.**

**Users registering an account, if success, the app will send registered information to the Firebase database.**

1. **Hardware and Software required for implementing the project**

**Hardware: Windows 10 and above, Android 9.0 and above**

**Software: Android Studio, Firebase Cloud**

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| **Design Plan:** | **Document Name: CRS** | **SWD/Form No. 2B** |
| **Effective Date:** | **Version: 1** | **Page No.** |

|  |  |
| --- | --- |
| **S.No.** | **Customer’s Acceptance Criteria** |
| 1. | Users want to login |
| 2. | Users want to signup |
| 3. | Students and Parents want to view their marks |
| 4. | Users want to contact school, university with the information provided within the app |
| 5. | Users want to send feedback about the app, the marks, etc |

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| **Design Plan:** | **Document Name: Project Plan** | **SWD/Form No. 3** |
| **Effective Date:** | **Version: 1** | **Page No.** |

**Project Plan**

1. **Project Details**
   * **Name of the Client:**
   * **Date of the Project Plan:**

**10st August 2022**

* + **Project Vision/Objectives:**

(Define the project vision/objectives as stated by the client)

SMART Study is a proposed comprehensive mobile application that can be used by students, teachers, and parents/guardians. The proposed mobile application SMART Study will allow various types of users to register and if they are students, they can track the academic progress, access study material through links, receive updates on revision classes, and so on. Students can view and monitor their scores and performance. Teachers can update scores and extra classes information and add resources. With just a click, parents/guardians can keep track of their wards’ performance. You are required to develop this solution.

### Scope:

(Mention the scope of the project giving the location that will be covered, processed, range of services, and so on)

This software system will be a Mobile Application to be used by students, teachers, and parents/guardians. The mobile application will be designed to keep a track of academic progress and provide users a platform where they can be updated with information they require.

### Our understanding of the client organization

(Give the range of services, functions, overview of processes, and so on)

Educational Organizations, Activities

### Project Organization with Responsibilities and Authorities

(Give the name of Project team members their roles and responsibilities)

Nguyen Hoang Thien An, (Leader), Luu Thanh Sang, Vo Phan Hien: Most of the programming

Pham Ngoc Thien, Nguyen Minh Hieu: Documentaion, minor part of the program

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### Project Initiation/Requirement Documents

(Information required from the client as inputs regarding his/her system; could be the information about the services, processes, and so on)

Client must have Android version 9.0 and above

### Deliverables

(The documents to be handed over to the client – such as CRS, Design Document, Installation Manual, User Manual, Maintenance Manual, and Code of documents)

CRS, User Manual.

As of Installation Manual, client can run the project with Android Studio, export the apk file and install the apk file to the phone using Android 9.0 and above

### Project Dependencies

(Any event or task outside the scope of the project which will affect the success of the project)

Every member of the team has to work accordingly

### Major Project Milestones

(Generating CRS and Building a Prototype)

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### Quality Plan

* + **Review Activities** (Review meeting participants, frequency and so on)

Team leader is encouraging, most of the members show up everyday of the competition

* + **Testing Activities** (Final Test)

Everything works properly, but still lack some features

* + **Backup and Recovery Strategies** (In case of disk crash, network failures, and so on)

Every member of the team will push the modified files to github and have a separated copy for the lastest files with them before the pushed files.

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| **Design Plan:** | **Document Name: GUI Standard Document** | **SWD/Form No. 4** |
| **Effective Date:** | **Version: 1** | **Page No.** |

### Document Design

|  |  |
| --- | --- |
| **Property** | **Value** |
| Document Theme and Color Scheme | Black and White |
| Form-Background Color | White |
| Title-Font Size | 14 |
| Title-Font Color | White |
| Title-Font Style | Black background |
| Title-Alignment | Left |
| Background color of Controls on the form |  |
| Foreground color of Controls on the form |  |
| Control Caption-  Font Size |  |
| Control Caption- Font Color |  |
| Control Caption- Font Style |  |
| Control caption and controls-Alignment |  |
| Command button-Alignment |  |

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| **Design Plan:** | **Document Name: Interface Design Document** | **SWD/Form No. 5** |
| **Effective Date:** | **Version: 1** | **Page No.** |

**1. List of forms to be created**

|  |  |  |
| --- | --- | --- |
| **Page/Form Name** | **Description** | **Controls on the Page/Form** |
| Graphical user interface, application, Teams  Description automatically generated | This page is for Login section. User can login his/her account here. | Login Button: For Logining into the app.  Signup Button: For transferring to Sign up page. |
| Graphical user interface, application  Description automatically generated | This page is for sign up section. User can sign up his/her account for using app. | Sign up Button: For Signing up account. |
| Graphical user interface, application  Description automatically generated | This is the application main page for students. User can choose what they want to do by touching the icons. | Every icon is a button that link to one page with its own functions.  Logout button: for logging out. |
| Graphical user interface, application, Teams  Description automatically generated | This is the application main page for teachers. User can choose what they want to do by touching the icons. | Every icon is a button that link to one page with its own functions.  Logout button: for logging out. |
| Graphical user interface, application, Teams  Description automatically generated | This is the application main page for parent. User can choose what they want to do by touching the icons. | Every icon is a button that link to one page with its own functions.  Logout button: for logging out. |
| Text, letter  Description automatically generated | This is the application information page. |  |
| Graphical user interface, application, Teams  Description automatically generated | This page is for inputing students’ marks. | User can choose type of test, class, input mark for every student, save it or notify marks. |
| Text  Description automatically generated | This page contains telephone number for contacting the school staff. |  |
|  | This page is for sending feedback to the application developers. | Buy touching “Send Feedback” button, the feedback will be sent. |
| Chart, bar chart  Description automatically generated | With this page, user can review study progress in format of charts. |  |

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| **Design Plan:** | **Document Name: Task Sheet** | **SWD/Form No. 7** |
| **Effective Date:** | **Version: 1** | **Page No.** |

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| --- | --- | --- | --- | --- | --- |
| **Date:** | **Project Plan/ Milestone** | **Work Specification** | **Status of the Activity** | **Remarks** | **Responsibility** |
| 10/8/2022 | Documentation |  | OK | OK | Thien |
| 11/8/2022 | Design |  | OK | OK | Hieu |
| 12/8/2022 | Programming fuctions |  | OK | OK | An, Hien, Sang |
| 14/8/2022 | Testing |  | OK | OK | An |

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|  | **Prepared By (Student)** |  |
| **Date** |  |  |

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**Final Check List**

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| **Design Plan:** | **Document Name: Final Check List** | **SWD/Form No. 8** |
| **Effective Date:** | **Version: 1** | **Page No.** |

|  |  |  |
| --- | --- | --- |
| **S.No** | **Aspect Tested** | **Suggestion/Remarks** |
| 1. | Have all the modules been properly integrated and are they completely functional? | Yes |
| 2. | Does each unit meet its objective and purpose? Are all the validations happening properly? | Yes |
| 4. | Is the GUI design consistent all over? | Yes |
| 5. | Are the codes working as per specification? | Yes |
| 6. | Does the application’s functionality resolve the client  problem, and satisfy his/her needs completely? | Yes |
| 7. | Have the hardware and software been correctly chosen? | Yes |
| 8. | Additional features and utilities that give value addition to the entire project. | Yes |

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|  | **Prepared By (Student)** |  |
| **Date** |  |  |

## Project Report Template

# Source Code

This application source code has been uploaded on Github. Please use the link below for downloading:

Link: https://github.com/hieunlm-dev/techwiz3-apocalypse

# User Guide

### System Requirements:

Android 9.0 or later.

This application does not support Darkmode on mobile phone.

* 1. **Host the Site:**

Download APK file from the link below:

Link: https://github.com/hieunlm-dev/techwiz3-apocalypse

Install the APK file into Android mobile phone.

* 1. **User Guide:**

After installing the Smart Study app, please open it. You will see this screen:

Graphical user interface, application, Teams

Description automatically generated

Here you can sign up for your account buy choosing Sign up button. The sign up page will appear like this:

Graphical user interface, application

Description automatically generated

In this page, you will create your account. Please input your information on all fields. You can choose your role as a student, teacher or parent.

After signing up, you will be redirected to login page.

Please you your account that you have created to login.

This is the main page if you have login as student:

Graphical user interface, application

Description automatically generated

This is the main page if you login as teacher:

Graphical user interface, application, Teams

Description automatically generated

And this is the main page if you login as parent:

Graphical user interface, application, Teams

Description automatically generated

Please choose the function you want by touching on the icon on your screen. With these functions, you can:

* input marks, upload study resources, view student’s academic progress and so on if you are teacher
* view marks, view academic progress, create review class and so on if you are student
* view children’s marks if you are parent.

And you can send feedback to the application developers, contact the developers and get school staff’s telephone number.