
Test Cases

for

CZ3003 Software System Analysis & Design

Prepared by The Challengers

Nanyang Technological University, Singapore

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Whole Team	19/04/2020	Initial Document	1.0

Contributors

Name	Email
Kiran Mac Milin	macmilin001@e.ntu.edu.sg
Gupta Jay	jay002@e.ntu.edu.sg
Vaish Arjun	arjun014@e.ntu.edu.sg
Kanodia Ritwik	ritwik002@e.ntu.edu.sg
Bhatia Ritik	ritik001@e.ntu.edu.sg
Hasan Mohammad Yusuf	mohammad059@e.ntu.edu.sg
Koh Zhuang Chean	zkoh014@e.ntu.edu.sg
Mundhra Divyesh	divyesh001@e.ntu.edu.sg
Asok Kumar Gaurav	asok001@e.ntu.edu.sg
Bhadra Soham	bhad0001@e.ntu.edu.sg
Truong Quang Duc	duc015@e.ntu.edu.sg
Yap Joon Shen	jyap033@e.ntu.edu.sg

Introduction

Purpose

The document lays out a plan for the development of “**SSADPro**”, a game application by The Challengers. The intended readers of this document are current and future developers working on the “**SSADPro**” project. The plan will include, but is not restricted to, a summary of the system functionality, the functional and non-functional requirements of the system, use-case models, UI model and other data-flow diagrams.

Document Conventions

This document features the usage of the font Arial of size 12. It must be noted that each new title uses Times New Roman of size 14, and is stylized to be bold.

In numbering our detailed requirements and use cases we employ a nested (indented) numbering system whereby a title numbered 1 has subheadings 1.1, 1.2 and so on.

Intended Audience and Reading Suggestions

This document is intended for any developer, project manager, software tester or user involved in the design, development and testing of this application.

The sequence followed in this document is

1. Test Cases

Developers who are to review application capabilities, system features and other requirements may view sections 1.

Product Scope

SSADPro will be an application that will facilitate a user to learn the topics of Software Engineering through a gamified approach. Currently, the project is being developed for students and instructors in the School of Computer Science and Engineering at NTU. The larger goal for this project would be to incorporate gamified learning in Computer Science schools across many universities in Singapore and other countries.

Testing

Student Mode

Test Case ID	Action	Description	Functionality to be tested	Expected output	Actual Output	Pass/Fail
TC_AM_001	The user chooses their avatar	User can choose which avatar represents them after logging in	Avatar choice	Save the avatar in the user's homepage and display homepage	Save the avatar in the user's homepage and display homepage	Pass
TC_AM_002	The user pressed the 'Adventure' button on the home page	Display Adventure Mode	Adventure Mode World Overview	Open the screen which shows all the worlds	Open the screen which shows all the worlds	Pass
TC_AM_003	The user pressed the 'Adventure' button on the home page	Display locked and unlocked worlds	Adventure Mode - Accessible worlds	Show unlocked worlds with unlocked icon and locked worlds with locked icon	Show unlocked worlds with unlocked icon and locked worlds with locked icon	Pass

TC_AM_004	The user presses an unlocked world to enter it	Enter the unlocked world	Adventure Mode - Accessible Worlds Unlocked	Allow user to enter the world - Open the world page, viewing the different sections	Allow user to enter the world - Open the world page, viewing the different sections	Pass
TC_AM_005	The user presses a locked world	Block user from entering a locked world	Adventure Mode - Locked World	Prompt the user that they are not allowed to enter	Prompt the user that they are not allowed to enter	Fail
TC_AM_006	The user presses a particular section button in the world	Enter the section to start the quiz for that particular topic	Adventure Mode Section	Open the section page, allowing the user to start the quiz	Open the section page, allowing the user to start the quiz	Pass
TC_Quiz_001	The user has entered the section	Display random questions from pool of questions consisting of MCQ Type, fill in the blank and column matching	Adventure Mode Quiz questions	Random Questions displayed one by one	Random Questions displayed one by one	Pass
TC_Quiz_002	The user	For MCQ questions,	Answer chosen by	The answer button	The answer button	Pass

	chooses correct answer	four answer options will be provided and system has to check whether user has clicked on correct answer	user correct/incorrect	turns green if user has chosen correct answer and proceeds to next question	turns green if user has chosen correct answer and proceeds to next question	
TC_Quiz_003	The user chooses incorrect answer	For MCQ questions, four answer options will be provided and system has to check whether user has clicked on correct answer	Answer chosen by user correct/incorrect	The answer button turns red if user has chosen incorrect answer and prompts user to try again	The answer button turns red if user has chosen incorrect answer and prompts user to try again	Pass
TC_Quiz_004	The user types an answer	For Fill in the blank questions, the user has to input their answer in words and system has to check whether their answer is correct	Answer typed by user correct/incorrect	If user has typed the correct answer, the next question is shown	If user has typed the correct answer, the next question is shown	Pass
TC_Quiz_005	The user	For Fill in the blank	Answer typed by	If user has typed	If user has typed	Pass

	types an answer	questions, the user has to input their answer in words and system has to check whether their answer is correct	user correct/incorrect	the incorrect answer, the user is prompted to try again	the incorrect answer, the user is prompted to try again	
TC_Quiz_006	The user matches answers in two columns by dragging and dropping	For match the column type of questions, system has to check if user has matched all terms appropriately by dragging and dropping tiles	Answers matched by user correct/incorrect	If user has matched all tiles correctly, the next question is shown	If user has matched all tiles correctly, the next question is shown	Pass
TC_Quiz_007	The user completes all the questions of a quiz	Once user completes all questions, they are done with a particular section	Section completion	If user has completed all questions, then system prompts that section is completed and the next section is unlocked	If user has completed all questions, then system prompts that section is completed and the next section is unlocked	Pass

TC_Quiz_008	The user completes all the sections in a world	Once user completes all questions of all sections, then a world is complete, and user can proceed to the next world	World completion	If user has completed all section, then system prompts that world is completed and the next world is unlocked	If user has completed all section, then system prompts that world is completed and the next world is unlocked	Pass
TC_Quiz_009	The user completes some sections and some worlds	Once user completes some worlds and sections, the progress tab is updated with number of worlds, sections and levels completed	Tracking Progress	The profile page of the user shows how many worlds, sections and levels the user has completed	The profile page of the user shows how many worlds, sections and levels the user has completed	Pass
TC_Compete_001	The user clicks on the 'Compete Mode' option	Check if user's friends can be viewed	View Friends List from Facebook/ Google	The screen should display a list of the user's friends with whom they can compete		Pass

TC_Compete002	The user clicks on the 'Compete Mode' option	Check if the user has received any challenge from another user	Challenging players	The screen should display that another user has challenged this user	The screen should display that another user has challenged this user	Pass
TC_Compete003	The user clicks on 'Accept Challenge'	The user must be able to attempt the quiz after clicking 'Accept Challenge'	Quiz attempt	The screen should display MCQ questions one by one	The screen should display MCQ questions one by one	Pass
TC_Compete_004	The user clicks on answer options	User must be able to choose their answers	Compete Mode Quiz	The system marks the answer box green if answer is correct and red if incorrect	The system marks the answer box green if answer is correct and red if incorrect	Pass
TC_Compete_005	User completes the quiz	Check if points have been calculated appropriately	Points Calculation	The system must display the total number of points gained after the user has completed the quiz	The system displayed the total number of points gained after the user completed the quiz	Pass

TC_Leaderboard_001	User presses the 'Leaderboard' button on the homepage	Check if leaderboard can be loaded	Leaderboard	Show the leaderboard with player names and their points in order of highest to lowest points	Show the leaderboard with player names and their points in order of highest to lowest points	Pass
TC_Assess_001	User presses the 'Assessment' button on the homepage	Check present and past assessments	Assessment	Show present assessments and details under 'Present' and past assessments under 'History'	Show present assessments and details under 'Present' and past assessments under 'History'	Pass

Instructor Mode

Test Case ID	Action	Description	Functionality to be tested	Expected output	Actual Output	Pass/Fail
TC_IM_001	User logs in with their Gmail ID	After logging in, check if system displays the instructor dashboard	View Instructor Dashboard	The instructor dashboard is displayed	The instructor dashboard is displayed	Pass
TC_IM_002	User taps on 'Create Student Group'	Check if system allows the user to create student groups	Create student groups	The screen displays a list of student groups and at the end has a button which says 'Add a group'	The screen displays a list of student groups and at the end has a button which says 'Add a group'	Pass
TC_IM_003	User taps on 'Add a group'	Check if system allows the user to add students to a group	Create student groups	The screen asks user for Course ID and group ID		Pass

TC_IM_004	User types in the course ID and the group ID	Check if system allows the user to add students to a group	Create student groups	The screen shows the option to add members for a particular group	The screen shows the option to add members for a particular group	Pass
TC_IM_005	User presses on icon to add members	Check if system allows the user to add students to a group	Create student groups	The screen shows a list of students and the user can choose multiple students to add to the group	The screen shows a list of students and the user can choose multiple students to add to the group	Pass
TC_IM_006	User presses 'confirm' after selecting student names	Check if system allows the user to add students to a group	Create student groups	Group is created and added to the list of available groups	Group is created and added to the list of available groups	Pass
TC_IM_007	User presses on 'Send Assessment' in the dashboard	Check if system allows instructor to create and send assessment	Send Assessment	Screen is shown where user can input Course name/ID, topic,	Screen is shown where user can input Course name/ID, topic,	Pass

				and due date	and due date	
TC_IM_008	User inputs all details and clicks 'Next'	Check if system allows user to type in the questions and answers	Create Assessment	Screen is shown where user can input the questions and answers	Screen is shown where user can input the questions and answers	Pass
TC_IM_009	User inputs the questions and answers and then clicks 'Next'	Check if system allows instructor to create and send assignment	Choose student group to send assessment	Screen is shown where user can select which student group to send the assessment to	Screen is shown where user can select which student group to send the assessment to	Pass
TC_IM_010	User selects the student group to which assessment has to be sent	Check if system allows instructor to send assignment	Send Assessment	Screen prompts the user that the assessment has been sent successfully	Screen prompts the user that the assessment has been sent successfully	Pass
TC_IM_011	User presses on 'Track Progress' in the dashboard	Check if system shows the user progress of each	Track Progress	Screen displays a list of all registered	Screen displays a list of all registered	Pass

		student		students	students	
TC_IM_012	User selects a student	Check if system shows the user progress of each student	Track Progress	Screen displays graphs of the student's progress in worlds, sections and levels	Screen displays graphs of the student's progress in worlds, sections and levels	Pass
TC_IM_013	User presses on 'Assessment History' in the dashboard	System allows the user to view past assessments and their details	Assessment History	Screen displays a list of present assessments under 'Present' and the past assessments under 'History'	Screen displays a list of present assessments under 'Present' and the past assessments under 'History'	Pass
TC_IM_014	User presses on 'Invite Students via Whatsapp' in the dashboard	Invite students through Whatsapp	Social Media function	On pressing the button, a slide up menu appears where users can send a message to invite students	On pressing the button, a slide up menu appears where users can send a message to invite students	Pass

				via Whatsapp	via Whatsapp	
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Student Login

Test Case ID	Action	Description	Functionality to be tested	Expected output	Actual Output	Pass/Fail
TC_SL_001	A student clicks the icon 'Sign in with Google'	A student is signing in his/her account using google sign in by entering email id.	Student Login	Google's 'Sign In' page opens asking for the student email id as an input	Google Sign In page opens asking for the student email id as an input	Pass
TC_SL_002	The student clicks on the 'next' icon on google sign in page to enter the password	A student is signing in his/her account using google sign in by entering password.	Student Login	Google's 'Update Account' page opens	Google 'Update Account' page opens	Pass
TC_SL_003	The student clicks on the already registered account.	If the student has already registered the account, the student can directly select the avatar.	Student Login	Successful Login, the system gives the option to choose an avatar.	Successful Login, the system gives the option to choose an avatar.	Pass

TC_SL_004	The student clicks on the 'Yes I'm in' icon on google's 'Account Update' page	A student is signing in his/her account using google sign in.	Student Login	Google's 'Welcome' page opens	Google 'Welcome' page opens	Pass
TC_SL_005	The student clicks on the 'Agree' icon on google's 'Welcome' page	A student is signing in his/her account using google sign in.	Student Login	Google's 'Google Services' page opens	Google's 'Google Services' page opens	Pass
TC_SL_006	The student clicks on the 'Agree' icon on google's 'Google Services' page	A student is signing in his/her account using google sign in.	Student Login	Successful Login, the system gives the option to choose an avatar.	Successful Login, the system gives the option to choose an avatar.	Pass
TC_SL_007	The student clicks on the avatar he/her wants.	Avatar selection	Student Login	Student dashboard is shown.	Student dashboard is shown.	Pass

Instructor Login

Test Case ID	Action	Description	Functionality to be tested	Expected output	Actual Output	Pass/Fail
TC_IL_001	An Instructor clicks the icon 'Sign in with Google'	An instructor is signing in his/her account using google sign in by entering email id.	Instructor Login	Google's 'Sign In' page opens asking for the instructor email id as an input	Google Sign In page opens asking for the instructor email id as an input	Pass
TC_IL_002	The instructor clicks on the 'next' icon on google sign in page to enter the password	The instructor is signing in his/her account using google sign in by entering password.	Instructor Login	Google's 'Update Account' page opens	Google 'Update Account' page opens	Pass
TC_IL_003	The instructor clicks on the already registered account.	If the instructor has already registered the account, the instructor can see the instructor dashboard .	Instructor Login	Successful Login, the system displays the instructor dashboard.	Successful Login, the system displays the instructor dashboard.	Pass

TC_IL_004	The instructor clicks on the 'Yes I'm in' icon on google's 'Account Update' page	The instructor is signing in his/her account using google sign in.	Instructor Login	Google's 'Welcome' page opens	Google 'Welcome' page opens	Pass
TC_IL_005	The instructor clicks on the 'Agree' icon on google's 'Welcome' page	The instructor is signing in his/her account using google sign in.	Instructor Login	Google's 'Google Services' page opens	Google's 'Google Services' page opens	Pass
TC_IL_006	The instructor clicks on the 'Agree' icon on google's 'Google Services' page	The instructor is signing in his/her account using google sign in.	Instructor Login	Successful Login, the system displays the instructor dashboard.	Successful Login, the system displays the instructor dashboard.	Pass

Settings

Test Case ID	Action	Description	Functionality to be tested	Expected output	Actual Output	Pass/Fail
TC_S_001	The user clicks the icon 'Configuration'	The user tries to change the Wifi, Display, Sound, App Settings. The user may also want to view his/her profile.	Edit configuration	Systems displays the page giving the option of viewing profile or change settings	Systems displays the page giving the option of viewing profile or change settings	Pass
TC_S_002	The user clicks on the 'Profile'	The user views his/her profile	View profile	Profile page opens	Profile page opens	Pass
TC_S_003	The user clicks on the 'Settings' icon	The user wishes to change the Wifi, Display and Sound settings and view app information	Change settings	Settings page opens	Settings page opens	Pass
TC_S_004	The user clicks on the 'Wifi' icon	The user wishes to change the Wifi settings	Change Wifi settings	OS Wifi settings page open	OS Wifi settings page open	Pass

TC_S_005	The user clicks on the 'Sound' icon	The user wishes to change the Sound settings	Change Sound settings	OS Sound settings page open	OS Sound settings page open	Pass
TC_S_006	The user clicks on the 'Display' icon	The user wishes to change the Display settings	Change Display settings	OS Display settings page open	OS Display settings page open	Pass
TC_S_007	The user clicks on the 'App Info' icon	The user wishes to view app information	View app information	OS App info page open	OS App info page open	Pass

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