Introduction to Software Engineering

Working Software

The student team is required to complete the **Working Software** documentation for the assigned course project, following the attached template.

Software Engineering Department
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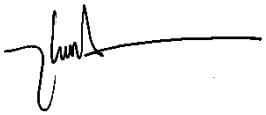
Automated Testing and Working Software

Objectives

This document focuses on the following topics:

- ✓ Completing the Automated Testing & Working Software document with the following sections:
  - Automated Testing
  - Working Software

1 Member Contribution Assessment

ID	Name	Contribution (%)	Signature
23127069	Nguyen Minh Khoi	100	
23127359	Vo Tran Quoc Duy	100	
23127367	Ha Thu Hoang	100	
23127455	Truong Cong Thien Phu	100	
23127511	Vo Minh Tuan	100	

2 Automated Testing

Use Case 1: User Login (Feature ID: AUTH-001)

Scenario: Successful Login with Valid Credentials

Test Scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/auth/login"		
3 - Set Text	input_Username_username	"avamoore"		
4 - Set Encrypted Text	input_Password_password	"aeHFOx8jV/A="		
5 - Click	button_Forgot Password_inline-flex items-ce_804abe			
6 - Click	h1_Toggle Sidebar_text-4xl text-cyan-600 font-bold			
7 - Click	img_How to use_w-full h-full object-cover			
8 - Click	div_How to use_flex flex-row gap-4 items-ce_1d4db3			

Results: PASSED

Scenario: Login with Invalid Credentials

Test Scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/a		
3 - Set Text	input_Username_usernan	"avamore"		
4 - Set Encrypted Te	input_Password_passwor	"aeHFOx8jV/A="		
5 - Click	button_Forgot Password			
6 - Click	div_WELCOME_flex items			

Results: PASSED

Use Case 2: Create Student Contract (Feature ID: CON-001)

Scenario: Successful Creation of a New Contract

Test Scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/auth/login"		
3 - Set Text	input_Username_username	"davidgarcia"		
4 - Set Encrypted Text	input_Password_password	"aeHFOx8jV/A="		
5 - Click	button_Forgot Password_inline-flex items-ce_804abe			
6 - Click	a_Open_absolute inset-0 rounded-md outline-none			
7 - Click	div_CEFR C2_flex flex-col p-6 bg-gradient-t_9da43f			
8 - Click	div_Classes_p-6 bg-gradient-to-r from-purpl_48318b			
9 - Click	button_Contract Management_justify-center w_f6f2e5			
10 - Set Text	input_Student ID_r6-form-item	"STU001"		
11 - Click	div_Course_grid gap-2 mdcol-span-2			
12 - Click	button_Cancel_inline-flex items-center just_6dcda0			
13 - Click	div_Contracts forIELTS Foundation_grid grid_80d422			
14 - Click	h3_Contracts forIELTS Foundation_tracking-t_f92ae6			
15 - Click	div_ContractCON036_space-y-3 p-4 max-h-96 o_7e4521			

Result: PASSED

Scenario: Failed Creation of a Duplicate Contract

Test Scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/auth/login"		
3 - Set Text	input_Username_username	"davidgarcia"		
4 - Send Keys	input_Username_username	Keys.chord(Keys.ENTER)		
5 - Set Encrypted Text	input_Password_password	"aeHFOx8jV/A="		
6 - Send Keys	input_Password_password	Keys.chord(Keys.ENTER)		
7 - Click	a_Open_absolute inset-0 rounded-md outline-none			
8 - Click	h3_CEFR C2_tracking-tight text-xl font-bold_16affc			
9 - Click	div_Classes_p-6 bg-gradient-to-r from-purpl_48318b			
10 - Click	button_Contract Management_justify-center w_f6f2e5			
11 - Set Text	input_Student ID_r6-form-item	"STU001"		
12 - Click	button_Payment Method_ra-form-item			
13 - Click	button_Cancel_inline-flex items-center just_6dcda0			
14 - Click	div_Add New Contract_text-sm _pleading-relaxed			
15 - Double Click	div_Add New Contract_relative w-full rounde_364bf0			
16 - Click	button_Paid_inline-flex items-center justif_dae932			
17 - Click	img_How to use_w-full h-full object-cover			

Result: PASSED

Use Case 3: Submit Student Evaluation (Feature ID: EVAL-001)

Scenario: Successful Creation of a New Evaluation

Test Scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/a		
3 - Set Text	input_Username_username	"johnsmith"		
4 - Set Encrypted Text	input_Password_password	"iGDxf8hSRT4="		
5 - Click	button_Forgot Password_inline-flex items-ce_804abe			
6 - Click	div_Expired_flex justify-between items-center			
7 - Click	button_Information_bg-white border border-b_349e14			
8 - Click	div_STU002_text-sm font-medium text-gray-900			
9 - Click	html			
10 - Select Option By Value	select	"Quiz 1"; true		
11 - Click	input_Grade_filetext-foreground placeholder_1dd39d			
12 - Set Text	input_Grade_filetext-foreground placeholder_1dd39d_1	"A"		
13 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85	"g"		
14 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_1	"gr"		
15 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_2	"gre"		
16 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_3	"grea"		
17 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_4	"great"		
18 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_5	"greate"		
19 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_6	"greate "		
20 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_7	"greate j"		
21 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_8	"greate jo"		
22 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_9	"greate job"		
23 - Click	button_Reset_inline-flex items-center justi_2e9a37			
24 - Click	td_Comment_py-2 pr-4			
25 - Click	td_Quiz 1_py-2 pr-4			
26 - Click	td_Quiz 1_py-2 pr-4_1			
27 - Click	td_A_py-2 pr-4 max-w-420px truncate			

Result: PASSED

Scenario: Update an Evaluation

Test Scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/auth/login"		
3 - Set Text	input_Username_username	"johnsmith"		
4 - Set Encrypted Text	input_Password_password	"iGDxf8hSRT4="		
5 - Send Keys	input_Password_password	Keys.chord(Keys.ENTER)		
6 - Click	div_Expired_flex justify-between items-center			
7 - Click	button_Information_bg-white border border-b_349e14			
8 - Click	div_STU001_text-sm font-medium text-gray-900			
9 - Click	td_Comment_py-2 pr-4			
10 - Select Option By Value	select	"Writing Project 1"; true		
11 - Click	input_Grade_filetext-foreground placeholder_1dd39d			
12 - Set Text	input_Grade_filetext-foreground placeholder_1dd39d_1	""		
13 - Set Text	input_Grade_filetext-foreground placeholder_1dd39d_2	"C"		
14 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85	"Good Jo"		
15 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_1	"Good J"		
16 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_2	"Good "		
17 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_3	"Good"		
18 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_4	"Goo"		
19 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_5	"Go"		
20 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_6	"G"		
21 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_7	""		
22 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_8	"B"		
23 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_9	"Be"		
24 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_10	"Bet"		
25 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_11	"Bett"		
26 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_12	"Bette"		
27 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_13	"Better"		
28 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_14	"Better "		
29 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_15	"Better l"		
30 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_16	"Better lu"		
31 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_17	"Better luc"		
32 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_18	"Better luck"		
33 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_19	"Better luck "		
34 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_20	"Better luck n"		
35 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_21	"Better luck ne"		
36 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_22	"Better luck nex"		
37 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_23	"Better luck next"		
38 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_24	"Better luck next "		
39 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_25	"Better luck next t"		
40 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_26	"Better luck next ti"		
41 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_27	"Better luck next tim"		
42 - Set Text	textarea_Comment_flex min-h-80px w-full rou_a56b85_28	"Better luck next time"		
43 - Click	button_Reset_inline-flex items-center justi_2e9a37			
44 - Click	td_Comment_py-2 pr-4			
45 - Click	td_Writing Project 1_py-2 pr-4			
46 - Click	td_Writing Project 1_py-2 pr-4_1			
47 - Click	td_C_py-2 pr-4 max-w-420px truncate			

Result: PASSED

Use Case 4: Leave Request for Teacher

Scenario: Successfully submit a Leave Request

Test scripts:

Item	Object	Input	Output	Description
1 - Open Browser		""		
2 - Navigate To Url		"http://localhost:5173/ac		
3 - Set Text	input_Username_usernan	"johnsmith"		
4 - Set Encrypted Te	input_Password_passwor	"iGDxf8hSRT4="		
5 - Click	button_Forgot Password			
6 - Click	button_Dashboard_peer			
7 - Click	html			
8 - Click	div_Vacation_focusbg-ac			
9 - Click	input_Start Date_start-da			
10 - Click	button_Sa_items-center j			
11 - Click	input_End Date_end-date			
12 - Click	button_Sa_items-center j			
13 - Click	html_1			
14 - Click	div_EM002-Emily Jones_f			
15 - Set Text	textarea_Substitution Pla	"M"		
16 - Set Text	textarea_Substitution Pla	"Ms"		
17 - Set Text	textarea_Substitution Pla	"Ms "		
18 - Set Text	textarea_Substitution Pla	"Ms B"		
19 - Set Text	textarea_Substitution Pla	"Ms "		
20 - Set Text	textarea_Substitution Pla	"Ms"		
21 - Set Text	textarea_Substitution Pla	"Ms."		
22 - Set Text	textarea_Substitution Pla	"Ms. "		
23 - Set Text	textarea_Substitution Pla	"Ms. B"		
24 - Set Text	textarea_Substitution Pla	"Ms. Br"		
25 - Set Text	textarea_Substitution Pla	"Ms. Bro"		
26 - Set Text	textarea_Substitution Pla	"Ms. Brow"		
27 - Set Text	textarea_Substitution Pla	"Ms. Brown"		
28 - Set Text	textarea_Substitution Pla	"Ms. Brown "		
29 - Set Text	textarea_Substitution Pla	"Ms. Brown w"		
30 - Set Text	textarea_Substitution Pla	"Ms. Brown wi"		
31 - Set Text	textarea_Substitution Pla	"Ms. Brown wil"		
32 - Set Text	textarea_Substitution Pla	"Ms. Brown will"		
33 - Set Text	textarea_Substitution Pla	"Ms. Brown will "		
34 - Set Text	textarea_Substitution Pla	"Ms. Brown will c"		
35 - Set Text	textarea_Substitution Pla	"Ms. Brown will co"		
36 - Set Text	textarea_Substitution Pla	"Ms. Brown will cov"		
37 - Set Text	textarea_Substitution Pla	"Ms. Brown will cove"		
38 - Set Text	textarea_Substitution Pla	"Ms. Brown will cover"		
39 - Set Text	textarea_Substitution Pla	"Ms. Brown will cover "		
40 - Set Text	textarea_Substitution Pla	"Ms. Brown will cover m"		
41 - Set Text	textarea_Substitution Pla	"Ms. Brown will cover my		
42 - Set Text	textarea_Substitution Pla	"Ms. Brown will cover my		
43 - Set Text	textarea_Substitution Pla	"Ms. Brown will cover my		

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44 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
45 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
46 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
47 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
48 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
49 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
50 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
51 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
52 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
53 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
54 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
55 - Set Text      textarea_Substitution Plai "Ms. Brown will cover my
56 - Click         button_CLEAR FORM_inli
57 - Click         div_PENDING_bg-yellow·
58 - Click         div_PENDING_bg-yellow·
```

Result: PASSED

3 Working Software

As per the "Working Software" requirement for our project, we have created a comprehensive video demonstration showing our application in action.

This video serves as evidence of our feature completion and showcases all the core features of the software working as intended. The demonstration covers the primary end-to-end workflows for our key user roles, from a Learning Advisor creating a new student contract to a Manager reviewing the statistical dashboard.

You can view the full video demonstration at the link below:

https://youtu.be/E5qHOoTzWQo

4 Project Presentation

*Each team is required to present its project work in a **15-minute** presentation and up to **10 minutes** for Q&A. The main goal is to sell each team's work to the teaching staff and peers. With a few exceptions (permitted by the instructor), everyone is required to deliver at least 2-minute talk as a part of the team's presentation.*

The content includes:

- *Problem statement, product position statement (from the Vision document), users/market.*
- *Project management: team structure and responsibilities of team members.*
- *Software requirements: use-case model, non-functional requirements.*
- *Analysis and design: architecture and technologies used.*
- *Software testing: test environments, test plan, test results, and automated testing.*
- *Demo: demo a key scenario of the software.*

*As the presentation will be delivered up to **15 minutes**, you are advised to prepare about 15-20 slides.*

*Presentation grading. The presentation is graded using three components: **content (30%), delivery (30%), and demo (40%)**. The first component checks whether the presentation has all elements provided above and whether they are correct, logical and comprehensive (e.g., whether the problem statement is clearly stated). The delivery requirement checks how well the group delivers the presentation. It is based on the organization, transition, English, clarity, and persuasiveness of the presentation. And the demo will check how much the team has done and whether the software is actually working.*