CSE AUTO-RESPONSE BOT

Group 11

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Testing Plan

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1. Introduction

The purpose of this document is to outline the strategies for testing the CSE Auto-Response Bot. Testing will be requirements based testing which means that the requirements specification document will be used to obtain a list of testing requirements. The rest of this document is divided into three parts. First, testing requirements which are derived from the requirements specification (RS). Second, test cases that outline the purpose, procedure, and expected output that cover all the testing requirements. Third, testing report which describes the results by running the test cases.

2. Testing Requirements

2.1 Application startup

2.1.1 RS 3.2.1.3.2

Launch the ChatBot

2.2 Login System

2.2.1 RS 3.2.1.3.3.1

Invoke login with no arguments for username and password fields.

2.2.2 RS 3.2.1.3.3.1

Invoke login with correct registered username and password pair.

2.2.3 RS 3.2.1.3.3.1

Invoke login by using an argument that is not a registered username for username field

2.2.4 RS 3.2.1.3.3.1

Invoke login by using an argument that is not a valid password for a registered username for password field

2.2.5 RS 3.2.1.4.2

Click on report button to navigate to Report Screen

2.3 Chat System

2.3.1 RS 3.2.1.1.3.1

Attempt to chat with no arguments in the question field.

2.3.2 RS 3.2.1.1.3.2

Attempt to chat with a question matching with database question

2.3.3 RS 3.2.1.1.3.2

Attempt to chat with a question matching with less than 5 database questions

2.3.4 RS 3.2.1.1.3.2

Attempt to chat with a question matching with more than 5 database questions

2.3.5 RS 3.2.1.1.3.2

Attempt to chat with a question not matching with any database question

2.3.6 RS 3.2.1.4.2

Click on report button to navigate to Report Screen

2.3.7 RS 3.2.1.2.2

Click on update button to navigate to Update Screen, note this button only appears if user role is professor or staff

2.4 Report System

2.4.1 RS 3.2.1.4.3.2

Input with a valid description in the report text field

2.4.2 RS 3.2.1.4.3.2

Input with no arguments in the report text field

2.4.3

Click on return button to navigate to the previous screen

2.5 Update System

2.5.1 RS 3.2.1.2.3.1

Attempt to update with no arguments in the question or answer field

2.5.2 RS 3.2.1.2.3.1

Attempt to update with no arguments in the question field and a valid answer in the answer field

2.5.3 RS 3.2.1.2.3.1

Attempt to update with a valid question in the question field and no arguments in the answer field

2.5.4 RS 3.2.1.2.3.1

Attempt to update with both valid question and answer in the fields

2.5.5

Click on return to chat button to navigate to Chat Screen

2.5.6 RS 3.2.1.4.2

Click on report button to navigate to Report Screen

3. Test Cases

3.1 Application Startup

3.1.1 Test 1
Purpose:
Test the startup or launch of the application.

Setup:

Launch the application by clicking on the application icon

Inputs and Expected Outputs

Input	Expected Output
Launch the ChatBot	Login Page is displayed

Testing Requirements Covered:

Testing Requirement 2.1.1

3.2 Login System

3.2.1 Test 1

Purpose:

Test the login with no arguments in username and password field

Setup:

Launch the application

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
username	-	false	-
password	-	false	Alert: Invalid Password. Try Again

Testing Requirements Covered:

Testing Requirement 2.2.1

3.2.2 Test 2

Purpose:

Test the login with correct username and password pair

Setup:

Launch the application

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
username	student	true	Navigate to Chat Screen
password	1	true	Navigate to Chat Screen

Testing Requirements Covered:
Testing Requirement 2.2.2

3.2.3 Test 3
Purpose:
Test the login with not valid username in username field
Setup:
Launch the application
Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
username	wrongusername	false	Alert: Invalid Password. Try Again
password	1	true	-

Testing Requirements Covered:
Testing Requirement 2.2.3

3.2.4 Test 4
Purpose:
Test the login with an invalid password for a registered username for password field
Setup:
Launch the application
Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
username	student	true	-
password	wrongpassword	false	Alert: Invalid Password. Try Again

Testing Requirements Covered:
Testing Requirement 2.2.4

3.2.5 Test 5
Purpose:
Test navigation to Report Screen

Setup:

Launch the application

Inputs and Expected Outputs

Input Button	Expected Output
Report	Navigate to Report Screen

Testing Requirements Covered:

Testing Requirement 2.2.5

3.3 Chat System

3.3.1 Test 1

Purpose:

Test chat system with nothing in the question field

Setup:

Launch the application, login, and navigate to the Chat screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	-	false	Nothing appear on the chat screen

Testing Requirements Covered:

Testing Requirement 2.3.1

3.3.2 Test 2

Purpose:

Test chat system with whitespace character in the question field

Setup:

Launch the application, login, and navigate to the Chat screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	[space character]	false	Nothing appear on the chat screen

Testing Requirements Covered:

Testing Requirement 2.3.1

3.3.3 Test 3
Purpose:
Test chat system with a question matching with database question
Setup:
Launch the application, login, and navigate to the Chat screen
Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	Who are you	true	Expected result of question appeared on the chat screen

Testing Requirements Covered:
Testing Requirement 2.3.2

3.3.4 Test 4
Purpose:
Test chat system with a question matching with less than 5 database questions
Setup:
Launch the application, login, and navigate to the Chat screen
Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	Mac	true	A list of suggestions from database question

Testing Requirements Covered:
Testing Requirement 2.3.3

3.3.5 Test 5
Purpose:
Test chat system with a question matching with more than 5 database questions
Setup:
Launch the application, login, and navigate to the Chat screen
Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	CSCE	true	"Your question is too broad, could you make it more clear?"

Testing Requirements Covered:
Testing Requirement 2.3.4

3.3.6 Test 6
Purpose:
Test chat system with a question not matching with any database question
Setup:
Launch the application, login, and navigate to the Chat screen
Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	How to be smart	true	A message telling that the question is not in the database and a new-question report is added to address this problem

Testing Requirements Covered:
Testing Requirement 2.3.5

3.3.7 Test 7
Purpose:
Test navigation to Report Screen
Setup:
Launch the application, login, and navigate to the Chat screen
Inputs and Expected Outputs

Input Button	Expected Output
Click the Report Button	Navigate to Report Screen

Testing Requirements Covered:
Testing Requirement 2.3.6

3.3.8 Test 8
Purpose:
Test navigation to Update Screen
Setup:
Launch the application, login, and navigate to the Chat screen

Inputs and Expected Outputs

Input Button	Expected Output
Click the Update Button	Navigate to Update Screen

Testing Requirements Covered:

Testing Requirement 2.3.7

3.4 Report System

3.4.1 Test 1

Purpose:

Test report system with a valid description in the report text field

Setup:

Launch the application, and navigate to the Report screen from any screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
report	Test report	true	"Successfully reported" appears, a new report is added to the database.

Testing Requirements Covered:

Testing Requirement 2.4.1

3.4.2 Test 2

Purpose:

Test report system with no input arguments in the report text field

Setup:

Launch the application, and navigate to the Report screen from any screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
report	-	false	"Report cannot be empty" appears.

Testing Requirements Covered:

Testing Requirement 2.4.2

3.4.3 Test 3

Purpose:

Test report system with no whitespace character in the report text field

Setup:

Launch the application, and navigate to the Report screen from any screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
report	[space character]	false	"Report cannot be empty" appears.

Testing Requirements Covered:

Testing Requirement 2.4.2

3.4.4 Test 4

Purpose:

Test navigation to login screen

Setup:

Launch the application, then navigate to the Report screen from the login screen

Inputs and Expected Outputs

Input Button	Expected Output
Click the Return Button	Navigate to Login Screen

Testing Requirements Covered:

Testing Requirement 2.4.3

3.4.5 Test 5

Purpose:

Test navigation to chat screen

Setup:

Launch the application, login, and navigate to the Report screen from the chat screen

Inputs and Expected Outputs

Input Button	Expected Output
Click the Return Button	Navigate to Chat Screen

Testing Requirements Covered:

Testing Requirement 2.4.3

3.4.6 Test 6

Purpose:

Test navigation to update screen

Setup:

Launch the application, login, switch to update screen and navigate to the Report screen

Inputs and Expected Outputs

Input Button	Expected Output
Click the Return Button	Navigate to Update Screen

Testing Requirements Covered:

Testing Requirement 2.4.3

3.5 Update System

3.5.1 Test 1

Purpose:

Test update with no arguments in the question or answer field

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	-	false	Alert: Question cannot be empty.
answer	-	false	-

Testing Requirements Covered:

Testing Requirement 2.5.1

3.5.2 Test 2

Purpose:

Test update with whitespace characters in the question or answer field

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	[space character]	false	Alert: Question cannot be empty.

| answer | [space character] | false | - |

Testing Requirements Covered:

Testing Requirement 2.5.1

3.5.3 Test 3

Purpose:

Test update with no arguments in the question field and a valid answer in the answer field

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	-	false	Alert: Question cannot be empty.
answer	Test answer	true	-

Testing Requirements Covered:

Testing Requirement 2.5.2

3.5.4 Test 4

Purpose:

Test update with a valid question in the question field and no arguments in the answer field

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	Test question	true	-
answer	-	false	Alert: Answer cannot be empty.

Testing Requirements Covered:

Testing Requirement 2.5.3

3.5.5 Test 5

Purpose:

Test update with both valid question and answer in the fields

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Field	Input Value	Information Accept	Expected Output
question	Test question	true	Alert: Successfully updated
answer	Test answer	true	Alert: Successfully updated

Testing Requirements Covered:

Testing Requirement 2.5.4

3.5.6 Test 6

Purpose:

Test navigation to Chat Screen

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Button	Expected Output
Click the Return To Chat Button	Navigate to Chat Screen

Testing Requirements Covered:

Testing Requirement 2.5.5

3.5.7 Test 7

Purpose:

Test navigation to Report Screen

Setup:

Launch the application, login, and navigate to the Update screen

Inputs and Expected Outputs

Input Button	Expected Output
Click the Report Button	Navigate to Report Screen

Testing Requirements Covered:
Testing Requirement 2.5.6

4. Testing Report

Test Case	Result
3.1.1 Test 1	Passed
3.2.1 Test 1	Passed
3.2.2 Test 2	Passed
3.2.3 Test 3	Passed
3.2.4 Test 4	Passed
3.2.5 Test 5	Passed
3.3.1 Test 1	Passed
3.3.2 Test 2	**Failed**
3.3.3 Test 3	Passed
3.3.4 Test 4	Passed
3.3.5 Test 5	Passed
3.3.6 Test 6	Passed
3.3.7 Test 7	Passed
3.3.8 Test 8	Passed
3.4.1 Test 1	Passed
3.4.2 Test 2	Passed
3.4.3 Test 3	**Failed**
3.4.4 Test 4	Passed
3.4.5 Test 5	Passed
3.4.6 Test 6	Passed

3.5.1 Test 1	Passed
3.5.2 Test 2	**Failed**
3.5.3 Test 3	Passed
3.5.4 Test 4	Passed
3.5.5 Test 5	Passed
3.5.6 Test 6	Passed
3.5.7 Test 7	Passed