

Test cases of login

Test case	Target	Description
Login with valid email address and password	User Login	Verify successful login and authentication with correct email address and password.
Login with incorrect email address	User Login	Verify the system error handling when inputting the wrong email address of a user.
Login with blank email address	User Login	Verify the system error handling when leaving the password field blank.

Test case 1:

Test case	
Related use case	
Context	Login with correct email address and password
Input data	Email address: alice@example.com Password: 12345678
Expected output	1. Authenticated. 2. Redirect to account page.
Test steps	1. Enter email address: 'alice@example.com'

	<p>2. Enter password: 12345678</p> <p>3. Click ‘Sign in’ button or hit Enter</p>
Actual output	Same as expected output
Result	Passed

Test case 2:

Test case	
Related use case	
Context	Login with incorrect email address
Input data	<p>Email address: a@a</p> <p>Password: 12345678</p>
Expected output	<p>1. Disallow user to log in.</p> <p>2. Show a general error message, like ‘Invalid email or password’.</p>
Test steps	<p>1. Enter email address: ‘a@a’</p> <p>2. Enter password: 12345678</p> <p>3. Click ‘Sign in’ button or hit Enter</p>
Actual output	Same as expected result
Result	Passed

Test case 3:

Test case	
Related use case	
Context	Login with blank email address
Input data	1. Email address: 2. Password: 12345678
Expected output	1. Disallow user to log in. 2. Show an indication to kindly remind the user to fill out the missing field.
Test steps	1. Enter blank email address 2. Enter password: 1234578 3. Click 'Sign in' button or hit Enter
Actual output	1. Disallow user to login 2. Highlight the email field with the cursor blinking to suggest user to enter address
Result	Passed

Test case of create bot

Seq	Test case	Target	Description
1	Create bot with website URL	Create Bot page	Verify bot can be created using website as knowledge source

2	Create bot with uploaded file	Create Bot page	Verify bot can be created using uploaded file
3	Adjust bot response	Test Bot page	Verify bot follows response adjustment instruction

Test case	Create bot with website URL
Related Use case	UC-01 Create Bot
Context	User is logged in and on Create Bot page
Input Data	Bot name = "Support Bot" AI Model = “Gemini 2.5 Pro” Add Website Link = URL URL = https://en.wikipedia.org/wiki/Vietnam
Expected Output	Print a notification that the website link has been uploaded and bot is created successfully

Test steps	<ol style="list-style-type: none"> 1. Open Create Bot page. 2. Enter bot name. 3. Choose AI Model. 4. Click “Add Website Link”. 5. Enter valid URL. 6. Click “Create Bot”.
Actual Output	Bot is created and print notification is website link has been uploaded. and test chat screen is displayed.
Result	Passed.

Test case	Create bot with uploaded file.
Related Use case	UC-01 Create Bot.
Context	User is logged in and on Create Bot page.
Input Data	Bot name = "Document Bot" Upload File = File File = sample.pdf
Expected Output	File is uploaded, content extracted and appeared on the screen, and bot is created
Test steps	<ol style="list-style-type: none"> 1. Open Create Bot page. 2. Enter bot name. 3. Choose AI Model. 4. Click “Upload File”.

	5. Choose File from disk. 6. Click “Create Bot”.
Actual Output	Bot is created and test chat screen is displayed.
Result	Passed.

Test case	Adjust bot response.
Related Use case	UC-02 Test Bot.
Context	Bot has been created and test chat is available.
Input Data	Adjustment = “If someone asks “who are you?”, you should answer “botchat helpdesk for businesses”.”. User message = “Who are you?”.
Expected Output	Website content is extracted and bot is created successfully.
Test steps	1. Create bot successfully. 2. Enter adjustment text. 3. Send test message.
Actual Output	Bot responds “botchat helpdesk for businesses”.
Result	Passed.

Test case of group feature

Seq	Test case	Target	Description
1	Create Group with Empty Input	Create Group (Validation)	Verify that the system displays appropriate error messages when "Group Name" and "Member Emails" fields are left blank.
2	Create Group with Valid Input	Create Group	Verify that a new group is successfully created and correctly stored in the database when providing valid input data.
3	Update Group's Members with Empty Member_Emails	Update Group's Members	Ensure the system prevents updating a group if all member emails are removed, displaying a validation error.
4	Update Group's Members with Valid Member_Emails	Update Group's Members	Verify that the group's member list is successfully updated in the database when valid emails are provided.
5	Update Group's Bots with Empty GroupIDs	Update Group's Bots	Verify that a bot can be unlinked from all groups (cleared) and the status is correctly updated in the database.

6	Update Group's Bots with Valid GroupIDs	Update Group's Bots	Verify that a bot is correctly shared with all selected groups and data is accurately reflected in the database.
7	Delete Group	Delete Group	Confirm that a group is successfully removed from the system and its record is deleted from the database.

Test case	Create Group with Empty Input
Related Use case	Create Group
Context	On the group creation page, enter the information in the fields to create a group.
Input Data	GroupName="" , Member_Emails=""
Expected Output	Error: “Group name is required.”,”Please add at least one valid email.”
Test steps	On the group creation page, click “New Group”, on form click “Create Group” with no input.
Actual Output	Error: “Group name is required.”
Result	Passed.

Test case	Create Group with Valid Input
Related Use case	Create Group
Context	On the group creation page, enter the information in the fields to create a group.
Input Data	GroupName="Create Group Testcase", Member_Emails="aidomatuikobik1@gmail.com"
Expected Output	Group created, new group data is updated in the database.
Test steps	On the group creation page, click "New Group", enter the input in the fields, click "Create Group".
Actual Output	The same ER.
Result	Passed

Test case	Update Group's Members with Empty Member_Emails
Related Use case	Update Group's Members
Context	On the group creation page, enter the information in the fields to edit a group.
Input Data	Member_Emails=""

Test case	Update Group's Members with Empty Member_Emails
Expected Output	Error: “Please add at least one valid email.”
Test steps	Click “Edit” a Group, remove all email in Member_Emails field, click “Update Group”.
Actual Output	The same ER
Result	Passed

Test case	Update Group's Members with Valid Member_Emails
Related Use case	Update Group's Members
Context	On the group creation page, enter the information in the fields to edit a group.
Input Data	Member_Emails=”aidomatuikobik1@gmail.com”
Expected Output	Group updated, new group data is updated in the database.
Test steps	Click “Edit” a Group, enter email in Member_Emails field, click “Update Group”.
Actual Output	The same ER
Result	Passed

Test case	Update Group's Bots with Empty GroupIDs
Related Use case	Update Group's Bots
Context	In the bot's sharing list, on create bot page or edit bot page.
Input Data	Unchecked all groups in list.
Expected Output	Bot is shared with no group, data is updated in the database
Test steps	On Share with Groups, click “Select Group”, click “Clear”.
Actual Output	The same ER
Result	Passed

Test case	Update Group's Bots with Valid GroupIDs
Related Use case	Update Group's Bots
Context	In the bot's sharing list, on create bot page or edit bot page.
Input Data	Checked all groups in list.
Expected Output	Bot is shared with all groups, data is updated in the database
Test steps	On Share with Groups, click “Select Group”, checked all groups, click “Update”.

Test case	Update Group's Bots with Valid GroupIDs
Actual Output	The same ER
Result	Passed

Test case	Delete Group
Related Use case	Delete Group
Context	On Group page.
Input Data	GroupName="Create Group Testcase"
Expected Output	Group deleted, group data is deleted in the database
Test steps	On Group page, click "delete button" a group.
Actual Output	The same ER
Result	Passed

Test case	Delete Group
Related Use case	Delete Group
Context	On Group page.
Input Data	GroupName="Create Group Testcase"
Expected Output	Group deleted, group data is deleted in the database
Test steps	On Group page, click "delete button" a group.

Test case	Delete Group
Actual Output	The same ER
Result	Passed

Test case of config bot feature:

Seq	Test Case	Target	Description
1	Configure Bot with Valid Input	Configure Bot	Verify that the bot configuration is saved successfully and the system redirects to the Create Bot screen when a valid bot name, AI model, and group sharing are provided.
2	Configure Bot with Empty Bot Name	Configure Bot (Validation)	Verify that the system automatically assigns the default name “Unnamed Bot” when the bot name field is left empty and saves the configuration successfully.
3	Test Chat After Bot Configuration using Upload File	Test Bot (Knowledge Base)	Verify that the bot responds correctly based on the knowledge extracted from the uploaded PDF file during Test Chat.
4	Test Chat After Bot Configuration using Website Link	Test Bot (Knowledge Base)	Verify that the bot retrieves and utilizes knowledge from the configured website URL to answer user queries in Test Chat.
5	Test Chat After Bot Configuration using Adjusting Method	Test Bot (Response Adjustment)	Verify that the bot responds according to the adjusted response rules when a predefined question is detected.

Field	Content
Test Case	Configure Bot with Valid Input
Related Use Case	Configure Bot
Context	The user configures a chatbot on the Bot Details & Testing page
Input Data	Bot Name = “Selling car” AI Model = “Gemini 2.5 Flash”
Expected Output	The bot is saved successfully without any error messages
Test Steps	<p>Step One: On the Create Bot screen, click the View button of the selected bot(Selling car bot).</p> <p>Step Two: On the Bot Details & Testing page, enter a valid Bot Name.</p> <p>Step Three: Select the AI Model as Gemini 2.5 Flash.</p> <p>Step Four: Select the Group button, choose the group and click Share button.</p> <p>Step Four: Click the Save Changes button.</p>
Actual Output	The bot is saved successfully, and the system redirects to the Create Bot screen.

Result	Passed
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Field	Content
Test Case	Configure Bot with Empty Bot Name
Related Use Case	Configure Bot
Context	The user attempts to configure a chatbot with missing required information
Input Data	Bot Name = “” (empty)AI Model = “Gemini 2.5 Flash”
Expected Output	Auto save this bot name is "Unnamed Bot".
Test Steps	<p>Step One: On the Create Bot screen, click the View button of the selected bot(Selling car bot).</p> <p>Step Two: On the Bot Details & Testing page, leave the Bot Name field empty.</p> <p>Step Three: Delete bot's name if it exists.</p> <p>Step Four: Click the Save Changes button.</p>
Actual Output	The bot is saved successfully (name is "Unnamed Bot"), system redirects to Create Bot screen.
Result	Passed

Field	Content
Test Case	Test Chat After Bot Configuration using UpLoad file.
Related Use Case	Configure Bot
Context	The user configures the chatbot knowledge base using an uploaded file and tests the bot response
Input Data	Test message = "Ai là người biên soạn file 01_Software Engineering Introduction.pdf?"
Expected Output	Response = "Tôi là mô hình ngôn ngữ lớn được huấn luyện bởi một file pdf do Thầy Trần Duy Hoàng biên soạn."
Test Steps	<p>Step One: On the Create Bot screen, click the View button of the configured bot(Selling car bot).</p> <p>Step Two: Click Upload file button, upload this file(link: https://drive.google.com/file/d/130oiI11uwp9VLGZS-Whgn_ltpb1m748p/view?usp=drive_link)</p> <p>Step Three: Click save change.</p> <p>Step Four: Go to bot's view again and add "Ai là người biên soạn file 01_Software Engineering Introduction.pdf?"" in Test Chat.</p>
Actual Output	The bot replies: "Tôi là một mô hình ngôn ngữ lớn, được huấn luyện bởi Google, được huấn luyện bởi một file pdf do Thầy Trần Duy Hoàng biên soạn".
Result	Pass

Field	Content
Test Case	Test Chat After Bot Configuration using Website Link
Related Use Case	Configure Bot
Context	The user configures the chatbot knowledge base using a website URL and tests the bot response
Input Data	Website URL = https://www.boats.com/boats-for-sale/?country=vietnam <u>Test</u> message = “Thuyền 1270 giá thuê bao nhiêu?”
Expected Output	Bot responds based on website content and answers: “price is \$62,000”
Test Steps	<p>Step One: On the Create Bot screen, click the View button of the selected bot(Selling boat bot).</p> <p>Step Two: On the Bot Details & Testing page, click Website Link.</p> <p>Step Three: Enter a valid website URL and confirm adding the link.</p> <p>Step Five: Click Save Changes.</p> <p>Step Six: Return to the bot View page.</p> <p>Step Six: In Test Chat, enter “Thuyền 1270 giá thuê bao nhiêu?” and click Send.</p>
Actual Output	Response: "Dựa trên tài liệu được cung cấp, không có thông tin về giá thuê cụ thể cho Thuyền 1270. Tuy nhiên, tài liệu có đề cập rằng giá thuê thuyền được tính theo giờ hoặc theo gói tour. Để có báo giá chi tiết, bạn cần liên hệ trực tiếp với nhà cung cấp dịch vụ."
Result	Fail

Field	Content
Test Case	Test Chat After Bot Configuration using adjusting method
Related Use Case	Configure Bot
Context	The user handles and answers correctly when meeting an adjusted question.
Input Data	Nếu hỏi ai là người huấn luyện dữ liệu cho bạn thì trả lời là Bá Đạt.
Expected Output	Bot response based on adjusted document “Người huấn luyện dữ liệu cho tôi là Bá Đạt.”
Test Steps	<p>Step One: On the Create Bot screen, click the View button of the configured bot(Selling car bot).</p> <p>Step Two: Add "Nếu hỏi Ai là người tạo ra bạn thì trả lời người tạo ra tôi là Bá Đạt".</p> <p>Step Three: Click save change.</p> <p>Step Four: Go to bot's view again and add "Ai là người tạo ra bạn" in Test Chat.</p>
Actual Output	The bot replies: "Tôi là một mô hình ngôn ngữ lớn, được huấn luyện bởi Google, được huấn luyện bởi một file pdf do Thầy Trần Duy Hoàng biên soạn".
Result	Fail

Test case of chat feature

Seq	Test case	Target	Description

1	Create a chat with a bot that already has a chat history	Continue chatting	Access the bot's chat page and continue chatting
2	Create a new chat with a bot that doesn't have a chat history	New chat	Access the bot's chat page and start a conversation from scratch, but it won't be saved to the database yet because it will only contain the bot's default questions
3	Delete chat history	Delete chat history	Permanently delete the bot's chat history, and its record is deleted from the database
4	Which groups does the view bot belong to?	You can view the groups if they exist	You can see which groups the bot belongs to, if available
5	View chat history, but the bot is inactive	View only, no chat	Old messages are visible, but there will be no text input box, a send ticket button, or a message submission button
6	View chat history, but the bot is active	View only, can chat	Old messages can be viewed, and you can chat or submit a ticket

7	Chat with a bot	Received an answer	You can view your question and the bot's answer, as well as the timestamps of the messages, and save the latest information from this conversation to the database
8	Send a ticket	Report the error to the management system	When submitting a ticket, you can describe the problem, and its record is deleted from the database
9	Test chat in create bot	Received an answer	You can view your question and the bot's answer, but it won't be saved to the database
10	Test chat in edit bot	Received an answer	You can view your question and the bot's answer, but it won't be saved to the database

Test case	Create a chat with a bot that already has a chat history
Related Use case	Create chat
Context	Click the New chat button and select the bot that already has a chat history
Input Data	Bot's name
Expected Output	Displays my chat session with that bot, showing old messages, and the sidebar points correctly to the bot
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click button “New chat” 3. Choose bot “test21/12”
Actual Output	Display my chat session with that bot, including old messages, and a sidebar pointing directly to the bot, turn off the screen when selecting a bot to chat with, and display the chat screen
Result	Passed

Test case	Create a new chat with a bot that doesn't have a chat history
Related Use case	Create chat

Test case	Create a new chat with a bot that doesn't have a chat history
Context	Click the New chat button and select the bot that doesn't have a chat history
Input Data	Bot's name
Expected Output	Displays the bot's default message, and the sidebar points directly to the bot
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click button "New chat" 3. Choose bot "Tennis"
Actual Output	Display the bot's default message, show the bot in the sidebar and a sidebar pointing directly to the bot, turn off the screen when selecting a bot to chat with, and display the chat screen
Result	Passed

Test case	Delete chat history
Related Use case	Delete chat history
Context	I want to delete my chat history with the bot
Input Data	UserID and BotID
Expected	The chat logs have been deleted, are no longer visible, and the database is

Test case	Delete chat history
Output	gone
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click the delete bot button in the sidebar when you hover your mouse over the bot
Actual Output	The bot doesn't need to be in the sidebar; my chat history with the bot has disappeared from the UI and database, redirecting me back to the default bot - Customer Support Bot
Result	Passed

Test case	Which groups does the view bot belong to?
Related Use case	View screen chat
Context	See which groups the bot belongs to and how many people are in those groups, the creation date, and whether I am the owner of the bot
Input Data	BotID
Expected Output	I can see the names of the groups, the number of members in each group, the creation date, and whether I am the owner of the bot

Test case	Which groups does the view bot belong to?
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click on bot “HUP” in sidebar 3. Click icon group 4. Click X to close pop-up
Actual Output	I can see the names of the groups, the number of members in each group, the creation date, and whether I am the owner of the bot
Result	Passed

Test case	View chat history, but the bot is inactive
Related Use case	View screen chat
Context	View chat history, but the bot is inactive
Input Data	BotID and UserID
Expected Output	I can see the old messages, but there's no option to send
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click on bot “ok bot” in sidebar

Test case	View chat history, but the bot is inactive
Actual Output	I can see the old messages, but the chat history has been replaced with a message saying the bot is inactive
Result	Passed

Test case	View chat history, but the bot is active
Related Use case	View screen chat
Context	View chat history, but the bot is active
Input Data	BotID and UserID
Expected Output	I can see the old messages, and I can send a question
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click on bot “HUP” in sidebar
Actual Output	I can see the old messages, and I can send a question
Result	Passed

Test case	Chat with a bot
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Test case	Chat with a bot
Related Use case	Chat
Context	Send your question to the bot, and the bot will answer it, whether it can answer it or not
Input Data	Question
Expected Output	Answer
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click on bot “HUP” in sidebar 3. Enter question “ cho toi biet noi dung pa3” 4. Click button Send 5. See answer
Actual Output	I can send messages, see the bot's questions and answers, and the conversation content is saved to the database
Result	Passed

Test case	Send a ticket
Related Use case	Send ticket
Context	Send a notification to the management system that the bot is having

Test case	Send a ticket
	problems
Input Data	BotID, doc.id and ticket name
Expected Output	The ticket has been successfully sent
Test steps	<ol style="list-style-type: none"> 1. On chat page 2. Click on bot “HUP” in sidebar 3. Click button alert 4. Enter “Incorrect answer” in box ticket name 5. Click button “Send ticket” 6. Click button “OK” when you receive a message that the ticket has been successfully submitted.
Actual Output	The ticket has been successfully submitted and a notification has been displayed on the screen
Result	Passed

Test case	Test chat in create bot
Related Use case	Chat

Test case	Test chat in create bot
Context	Test the chat in create bot
Input Data	Question
Expected Output	The bot's response, regardless of whether it's actually responsive or not, and this chat history will not be saved to the database
Test steps	<ol style="list-style-type: none"> 1. On page create bot 2. Click button “Create new bot” 3. Enter bot name “TMP” 4. Upload file “tmp.docx” 5. Enter question in box “Test your bot”: “tom tat noi dung cho toi” 6. Click button Send 7. See answer
Actual Output	The bot's response, regardless of whether it's actually responsive or not, and this chat history will not be saved to the database
Result	Passed

Test case	Test chat in edit bot
Related Use case	Chat
Context	Test the chat in edit bot

Test case	Test chat in edit bot
Input Data	Question
Expected Output	The bot's response, regardless of whether it's actually responsive or not, and this chat history will not be saved to the database
Test steps	<ol style="list-style-type: none"> 1. On page create bot 2. Click button “viewt” on bot “alo” 3. Enter question in box “Test message...”: “tom tat noi dung” 4. Click button Send 5. See answer
Actual Output	The bot's response, regardless of whether it's actually responsive or not, and this chat history will not be saved to the database
Result	Passed