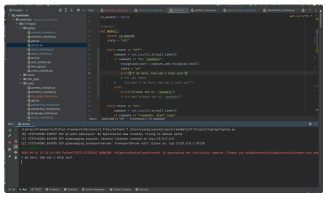
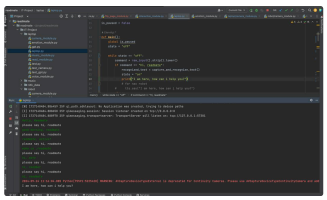
Test Cases 1.1

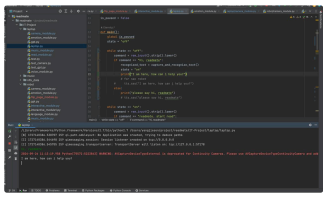
Test Case 1.1A	
Objective: Verify that the NAO robot can be awakened with a simple voice command, "Hi, Readmate." (Successful)	
Test Type: Functional	**Execution Type**: Manual
Setup: • Ensure that the NAO robot is powered on and in a standby state. • The robot's microphone and voice recognition system are active and ready to receive commands.	
Pre-Conditions: • The NAO robot is in a sleep or standby mode. • The environment is quiet enough for the robot to clearly hear voice commands.	
Robot	**Laptop**
Test Steps: 1. Stand within the robot's hearing range and say **"Hi, Readmate"** clearly. 2. Observe if the robot transitions from standby mode to an active state. 3. Confirm that the robot provides a verbal confirmation like **"I'm here, how can I help you?"** to indicate the robot is active.	**Test Steps:** 1. Type **"hi, readmate"** and place the text in front of the laptop camera to initialize the robot and begin text recognition 2. Confirm that the robot provides a verbal confirmation like **"I'm here, how can I help you?"** to indicate the robot is active.
	
Expected Results: • The NAO robot successfully wakes up and is ready to receive further instructions.	
Time Constraint: Minimum: 1 minute Maximum: 5 minutes	

Test Case 1.1A - Invalid
Objective: Verify that the NAO robot does not wake up when given incorrect or unrecognized voice commands, ensuring it only responds to the correct wake-up command, **"Hi, Readmate."** (Success)

Test Type: Negative/Functional	**Execution Type**: Manual
Setup: • Ensure that the NAO robot is powered on and in a standby state. • The robot's microphone and voice recognition system are active and ready to receive commands.	
Pre-Conditions: • The NAO robot is in a sleep or standby mode. • The environment is quiet enough for the robot to clearly hear voice commands.	
Robot	**Laptop**
Test Steps: 1. Say **"Hello, Readmate"/ "Good morning, robot"/ "Readmate, activate"/ "Wake up, Readmate" /"Hi, Mate"**.	
	
Expected Result: • The NAO robot remains in standby mode and responds with **"please say hi, readmate"** to all invalid or unrecognized commands.	**Expected Result:** • Laptop should reply **"please say hi, readmate"**.
Time Constraint: • **Minimum**: 5 min • **Maximum**: 10 min	

Test Case 1.1B
Objective: Verify that the NAO robot confirms its activation status through voice feedback after being awakened by a voice command. (Success)

Test Type: Functional	**Execution Type**: Manual
Setup: • Ensure that the NAO robot is powered on and connected. • The robot's microphone and voice recognition system are active and ready to receive commands.	
Pre-Conditions: • The NAO robot is in a standby mode. • The environment is quiet enough for the robot to hear and respond to voice commands.	
Robot	**Laptop**

Test Steps: 1. Stand within the robot's hearing range and say **"Hi, Readmate"** clearly to wake the robot. 2. After the robot wakes up, listen for a verbal confirmation like **"I'm here, how can I help you?"** to indicate the robot is active. 3. Verify that the robot is ready to receive further instructions after providing the verbal confirmation.	**Test Steps:** 1. Stand within the robot's hearing range and say **"Hi, Readmate"** clearly to wake the robot. 2. After the robot wakes up, listen for a verbal confirmation like **"I'm here, how can I help you?"** to indicate the robot is active. 3. Verify that the robot is ready to receive further instructions after providing the verbal confirmation.
	

Expected Results:

- The NAO robot replies **"I'm here, how can I help you?"** indicating it is ready to interact with the user.

Time Constraint:

Minimum: 1 minute

Maximum: 5 minutes

Test Case 1.1B - Invalid

Objective:
Verify that the NAO robot does not provide incorrect or unintended voice feedback when it has not been properly awakened by the correct voice command, ensuring that it only activates after being correctly awakened.

Test Type: Negative/Functional	**Execution Type**: Manual

Setup:

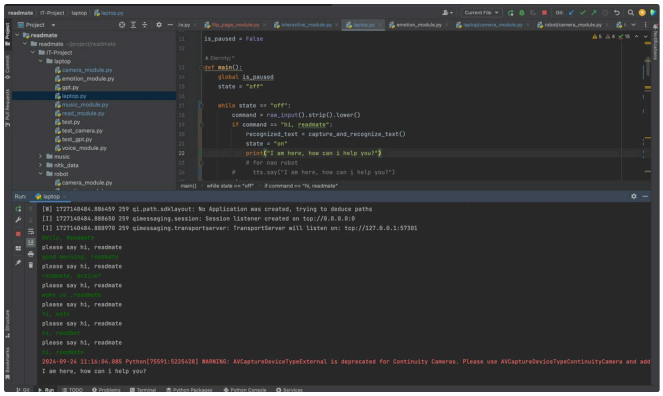
- Ensure that the NAO robot is powered on and connected.
- The robot's microphone and voice recognition system are active and ready to receive commands.

Pre-Conditions:

- The NAO robot is in a standby mode.
- The environment is quiet enough for the robot to hear and respond to voice commands.

Test Steps:

1. Say **"Hello, Readmate"/ "Good morning, robot"/ "Readmate, activate"/ "Wake up, Readmate" /"Hi, Mate"/ "Hi, Readbot"**



Expected Result:

- The NAO robot does not get activated and replied with **“please say hi, readmate”**

Test Case 1.1C (not available)

Objective:
Verify that the NAO robot can recognize the user’s voice and remember their speech features for accurate command recognition, even in a noisy environment or when multiple people are present. (Unsuccessful)

- **Minimum**: 5 min
- **Maximum**: 10 min

Test Type: Functional	**Execution Type**: Manual

Setup:

- Ensure that the NAO robot is powered on and connected.
- The robot’s voice recognition system is trained with the user’s voice features.

Pre-Conditions:

- The NAO robot is in an active state and ready to receive commands.
- The environment can vary between quiet and noisy.

Test Steps:

Expected Result:

Time Constraint: