



## **IT-314 : Software Engineering**

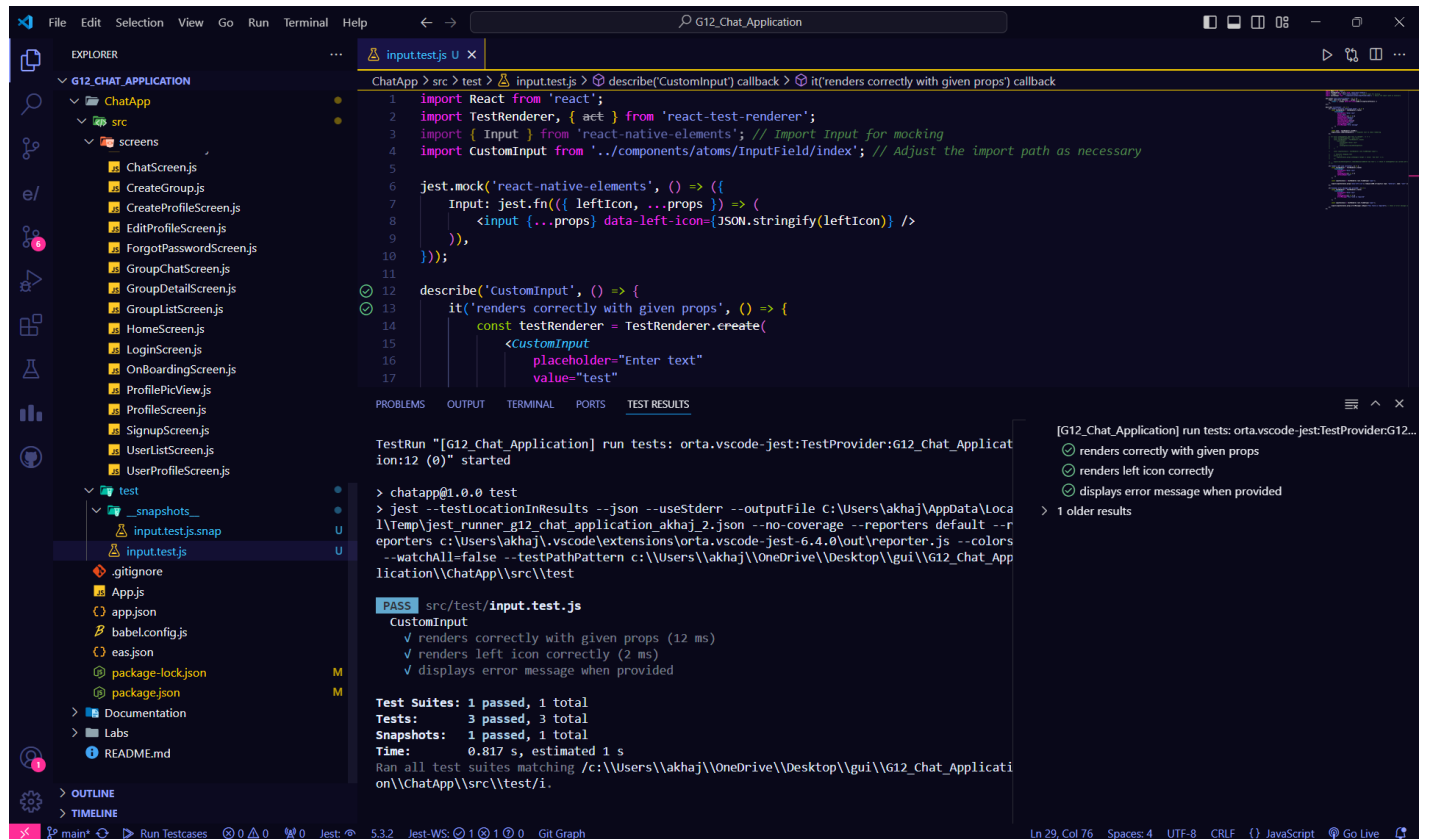
### **GUI Testing**

**Group : 12**

**CHAT APPLICATION**

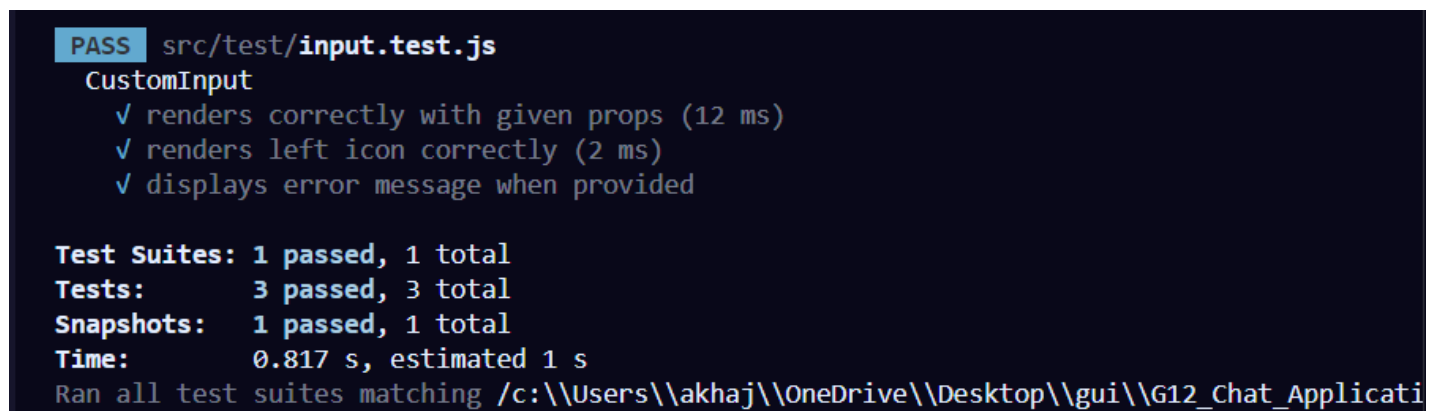
# Outputs Of GUI Test Suites :

## Test Suite 1 : for reusable input Field



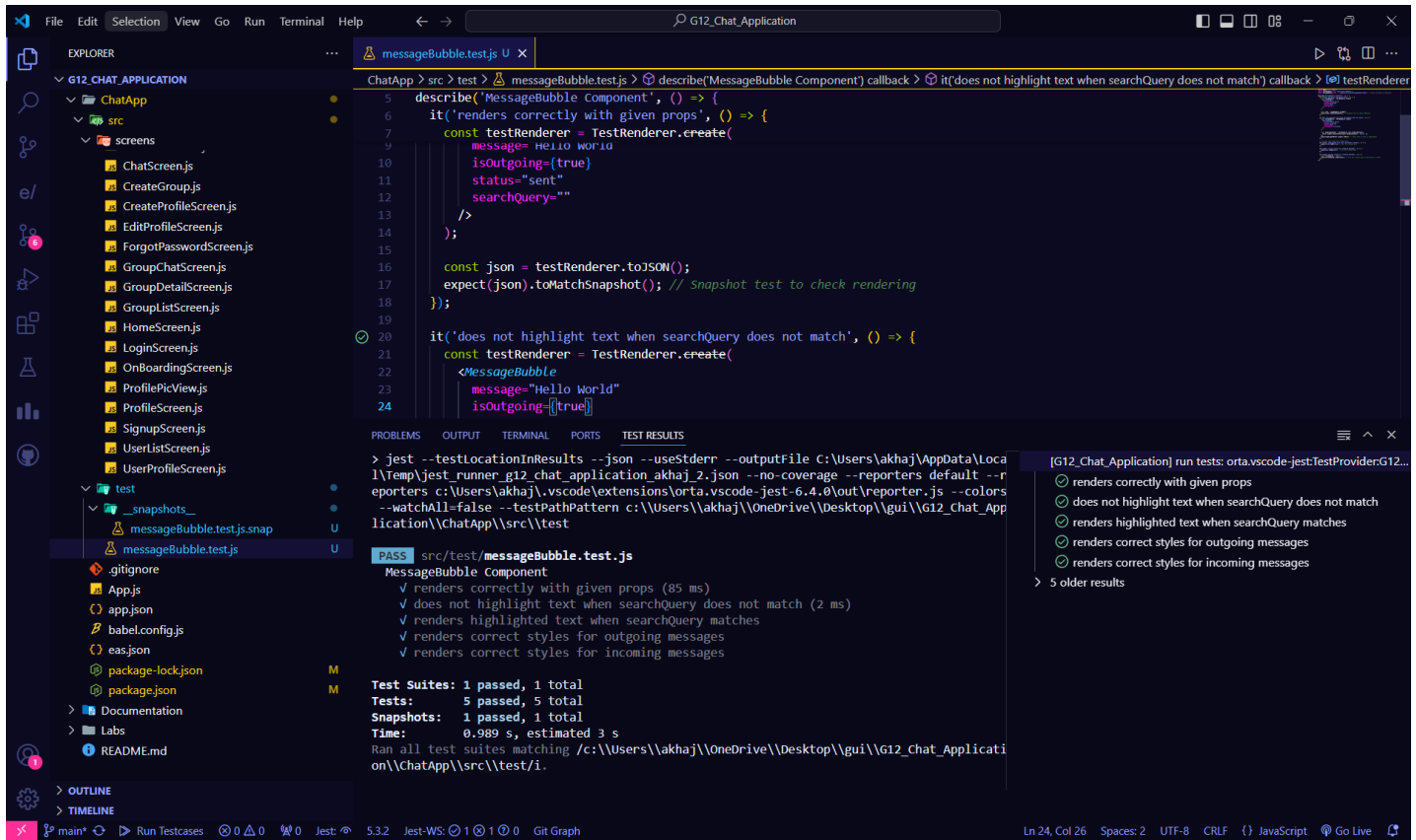
```
ChatApp > src > test > input.test.js > describe('CustomInput') callback > it('renders correctly with given props') callback
1 import React from 'react';
2 import TestRenderer, { act } from 'react-test-renderer';
3 import { Input } from 'react-native-elements'; // Import Input for mocking
4 import CustomInput from '../components/atoms/TextField/index'; // Adjust the import path as necessary
5
6 jest.mock('react-native-elements', () => ({
7   Input: jest.fn(() => ({ leftIcon, ...props }) => (
8     <input {...props} data-left-icon={JSON.stringify(leftIcon)} />
9   )),
10 }));
11
12 describe('CustomInput', () => {
13   it('renders correctly with given props', () => {
14     const testRenderer = TestRenderer.create(
15       <CustomInput
16         placeholder="Enter text"
17         value="test"
18     />
19   );
20   expect(testRenderer.toJSON()).toMatchSnapshot();
21 });
22
23 TestRun "[G12 Chat Application] run tests: orta.vscode-jest:TestProvider:G12_Application:12 (0)" started
> chatapp@1.0.0 test
> jest --testLocationInResults --json --useStderr --outputFile C:\Users\akhaj\AppData\Local\Temp\jest_runner_g12_chat_application_akhaj_2.json --no-coverage --reporters default --reporters c:\Users\akhaj\.vscode\extensions\orta.vscode-jest-6.4.0\out\reporter.js --colors --watchAll=false --testPathPattern c:\Users\akhaj\OneDrive\Desktop\gui\G12_Ch...
PASS src/test/input.test.js
  CustomInput
    ✓ renders correctly with given props (12 ms)
    ✓ renders left icon correctly (2 ms)
    ✓ displays error message when provided
Test Suites: 1 passed, 1 total
Tests: 3 passed, 3 total
Snapshots: 1 passed, 1 total
Time: 0.817 s, estimated 1 s
Ran all test suites matching /c:\Users\akhaj\OneDrive\Desktop\gui\G12_Ch...
[G12_Ch... Application] run tests: orta.vscode-jest:TestProvider:G12...
  ✓ renders correctly with given props
  ✓ renders left icon correctly
  ✓ displays error message when provided
> 1 older results
```

## Final Output : All test cases passed

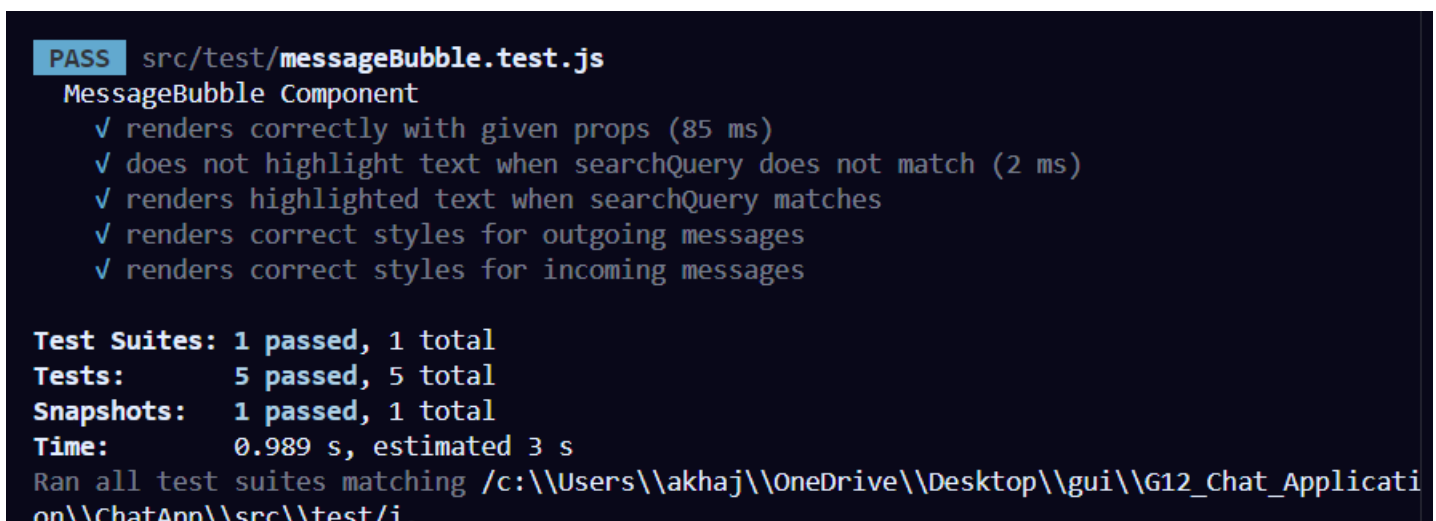


```
PASS src/test/input.test.js
  CustomInput
    ✓ renders correctly with given props (12 ms)
    ✓ renders left icon correctly (2 ms)
    ✓ displays error message when provided
Test Suites: 1 passed, 1 total
Tests: 3 passed, 3 total
Snapshots: 1 passed, 1 total
Time: 0.817 s, estimated 1 s
Ran all test suites matching /c:\Users\akhaj\OneDrive\Desktop\gui\G12_Ch... Application]
```

## Test Suite 2 : for message Bubble



## Final Output : All test cases passed



## Test Suite 3 : for reusable Button

```
reusableButton.test.js U X
est > reusableButton.test.js > describe('ReusableButton() ReusableButton method') callback > describe('Happy Paths') callback > it('should render the button with the correct text') callback
4 import renderer from 'react-test-renderer';
5 import ReusableButton from '../components/atoms/ReusableButton/index';
6
7 describe('ReusableButton() ReusableButton method', () => {
8   describe('Happy Paths', () => {
9     it('should render the button with the correct text', () => {
10      // Test to ensure the button renders with the correct text
11      const component = renderer.create(
12        <ReusableButton text="Click Me" backgroundColor="#000" textColor="#fff" />
13      );
14      const tree = component.toJSON();
15      expect(tree).toMatchSnapshot();
16      expect(tree.children[0].children[0]).toBe('click Me');
17    });
18
19    it('should apply the correct background color when not disabled', () => {
20      // Test to ensure the button has the correct background color when enabled
21      const component = renderer.create(
22        <ReusableButton text="Click Me" backgroundColor="#000" textColor="#fff" />
23      );
24    });
25  });
26});
```

PROBLEMS OUTPUT TERMINAL PORTS TEST RESULTS

```
> jest --testLocationInResults --json --useStderr --outputFile C:\Users\akhaj\AppData\Local\Temp\jest_runner_g12_chat_application_akhaj.2.json --no-coverage --reporters default --reporters c:\Users\akhaj\.vscode\extensions\orta.vscode-jest-6.4.0\out\reporter.js --colors --watchAll=false --testPathPattern c:\Users\akhaj\OneDrive\Desktop\gui\G12_Chat_Application\ChatApp\src\test
```

[G12\_Chat\_Application] run tests: orta.vscode-jest:Test...

- ✓ should render the button with the correct text
- ✓ should apply the correct background color when not disabled
- ✓ should apply the disabled style when the button is disabled

> 13 older results

PASS src/test/reusableButton.test.js

```
ReusableButton() ReusableButton method
Happy Paths
  ✓ should render the button with the correct text (279 ms)
  ✓ should apply the correct background color when not disabled (2 ms)
Edge Cases
  ✓ should apply the disabled style when the button is disabled (2 ms)
```

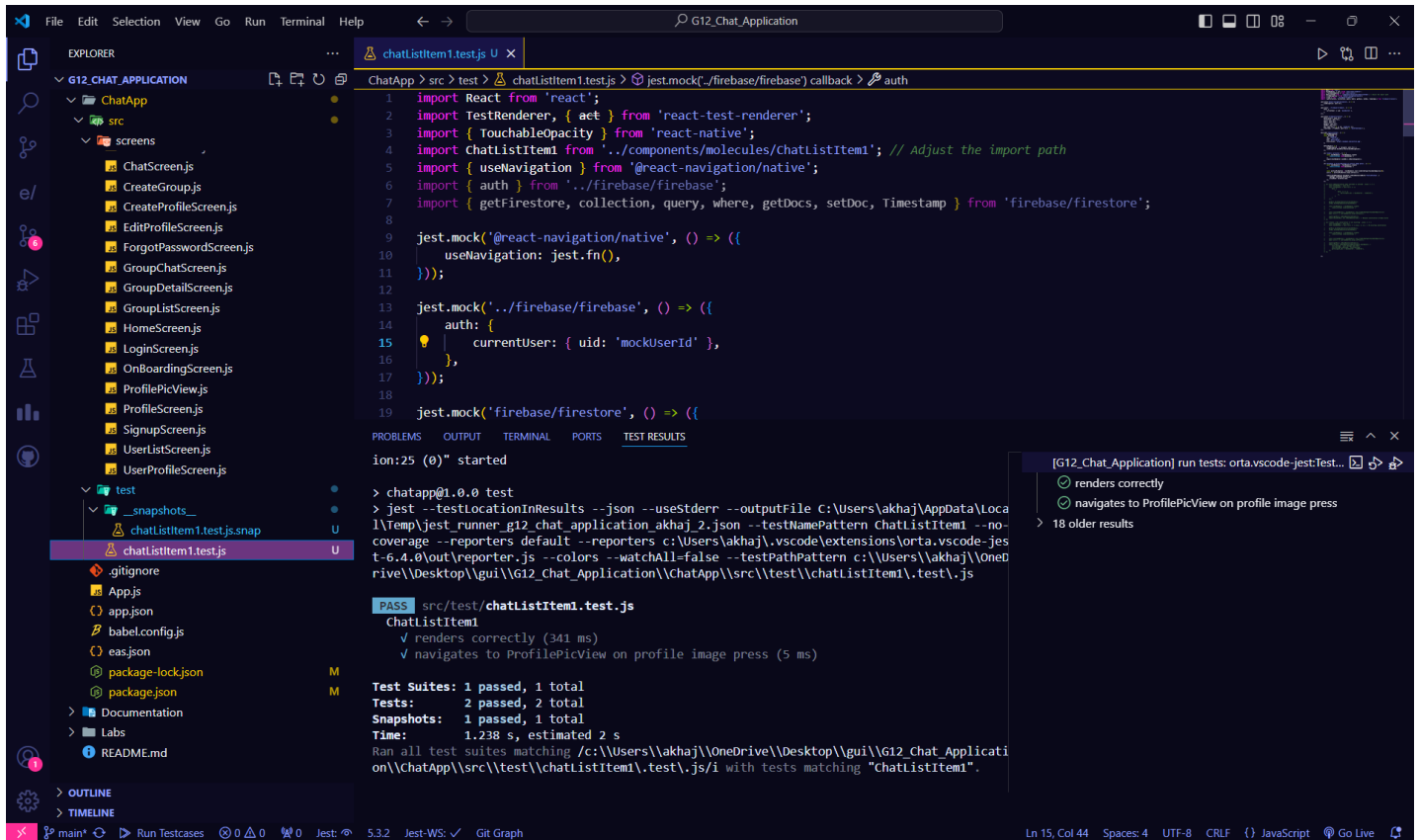
Test Suites: 1 passed, 1 total  
Tests: 3 passed, 3 total  
Snapshots: 3 passed, 3 total  
Time: 1.182 s, estimated 2 s  
Ran all test suites matching /c:\Users\akhaj\OneDrive\Desktop\gui\G12\_Chat\_Application\ChatApp\src\test/i.

## Final Output : All test cases passed

```
PASS src/test/reusableButton.test.js
  ReusableButton() ReusableButton method
    Happy Paths
      ✓ should render the button with the correct text (279 ms)
      ✓ should apply the correct background color when not disabled (2 ms)
    Edge Cases
      ✓ should apply the disabled style when the button is disabled (2 ms)

Test Suites: 1 passed, 1 total
Tests: 3 passed, 3 total
Snapshots: 3 passed, 3 total
Time: 1.182 s, estimated 2 s
Ran all test suites matching /c:\Users\akhaj\OneDrive\Desktop\gui\G12_Chat_Application\ChatApp\src\test/i.
```

## Test Suite 4 : for ChatListItem1 Button



## Final Output : All test cases passed



## Test Suite 5 : for Onboarding Screen

```
File Edit Selection View Go Run Terminal Help
G12_Chat_Application

EXPLORER
G12_CHAT_APPLICATION
  ChatApp
    src
      screens
        ChatListScreen.js
        ChatScreen.js
        CreateGroup.js
        CreateProfileScreen.js
        EditProfileScreen.js
        ForgotPasswordScreen.js
        GroupChatScreen.js
        GroupDetailScreen.js
        GroupListScreen.js
        HomeScreen.js
        LoginScreen.js
        OnBoardingScreen.js
        ProfilePicView.js
        ProfileScreen.js
        SignupScreen.js
        UserListScreen.js
        UserProfileScreen.js
    test
      _snapshots_
        onboarding.test.js
      .gitignore
      App.js
      app.json
      babel.config.js
      eas.json
      package-lock.json
      package.json
      Documentation
      Labs
      README.md

ChatApp > src > test > onboarding.test.js > ...
12 jest.mock('@react-navigation/native', () => {});
13 });
14 jest.mock("", () => "ReusableButton");
15
16 describe("OnBoradingForm Component", () => {
17   it("renders the 'Sign up with mail' button", () => {
18     const tree = renderer.create(<OnBoradingForm />).root;
19     const signUpButton = tree.findByProps({ text: "Sign up with mail" });
20     expect(signUpButton).toBeTruthy();
21   });
22
23   it("navigates to the 'Signup' screen when 'Sign up with mail' button is pressed", () => {
24     const mockNavigate = jest.fn();
25     const tree = renderer.create(
26       <OnBoradingForm navigation={{ navigate: mockNavigate }} />
27     ).root;
28     const signUpButton = tree.findByProps({ text: "Sign up with mail" });
29
30     // ...
31   });
32 });

PROBLEMS OUTPUT TERMINAL PORTS TEST RESULTS

> chatapp@1.0.0 test
> jest --testLocationInResults --json --useStderr --outputFile C:\Users\akhaj\AppData\Local\Temp\jest_runner_g12_chat_application_akhaj.2.json --testNamePattern OnBoradingForm Component --no-coverage --reporters default --reporters c:\Users\akhaj\.vscode\extensions\orta.vscode-jest-6.4.0\out\reporter.js --colors --watchAll=false --testPathPattern c:\Users\akhaj\OneDrive\Desktop\gui\G12_Chat_Application\ChatApp\src\test\onboarding\test\*.js

PASS src/test/onboarding.test.js
OnBoradingForm Component
  ✓ renders the 'Sign up with mail' button (348 ms)
  ✓ navigates to the 'Signup' screen when 'Sign up with mail' button is pressed (9 ms)

Test Suites: 1 passed, 1 total
Tests: 2 passed, 2 total
Snapshots: 0 total
Time: 1.304 s
Ran all test suites matching /c:\Users\akhaj\OneDrive\Desktop\gui\G12_Chat_Application\ChatApp\src\test\onboarding\test\*.js/i with tests matching "OnBoradingForm Component".

[G12_Chat_Application] run tests: orta.vscode-jest:Test...
  ✓ renders the 'Sign up with mail' button
  ✓ navigates to the 'Signup' screen when 'Sign up with mail' button is pressed
  > 42 older results

Ln 1, Col 1 Spaces: 2 UTF-8 CRLF {} JavaScript Go Live
```

## Final Output : All test cases passed

```
PASS src/test/onboarding.test.js
OnBoradingForm Component
  ✓ renders the 'Sign up with mail' button (348 ms)
  ✓ navigates to the 'Signup' screen when 'Sign up with mail' button is pressed (9 ms)

Test Suites: 1 passed, 1 total
Tests: 2 passed, 2 total
Snapshots: 0 total
Time: 1.304 s
Ran all test suites matching /c:\Users\akhaj\OneDrive\Desktop\gui\G12_Chat_Application\ChatApp\src\test\onboarding\test\*.js/i with tests matching "OnBoradingForm Component".

main* 0 tests failed, 0 tests passed Jest: 5.3.2
```

# Test Suite 6 : for Validate Email Field

The screenshot shows the VS Code interface with the following components:

- Explorer:** Displays the project structure for G12\_CHAT\_APPLICATION, including src, screens, test, and \_snapshots\_.
- Main Editor:** Shows the test file `validateEmail.early.test.js` with test cases for empty, null, and undefined inputs.
- PROBLEMS:** Shows a message: "Expected: false, Received: true" at line 93, column 22.
- TEST RESULTS:** Displays the test results for the run: `orta.vscode-jest:Test...`. It lists 15 test cases, with 2 failed and 13 passed.

**Test Results Summary:**

- Test Suites: 1 failed, 1 total
- Tests: 2 failed, 12 passed, 14 total
- Snapshots: 0 total
- Time: 0.84 s, estimated 1 s

**Test Cases:**

- should return false for an email with consecutive dots (Failed)
- should return false for an email with special characters (Failed)
- should return true for a valid email with simple structure (Passed)
- should return true for a valid email with subdomain (Passed)
- should return true for a valid email with plus sign (Passed)
- should return true for a valid email with numbers (Passed)
- should return true for a valid email with hyphen (Passed)
- should return false for an email without "@" symbol (Passed)
- should return false for an email without domain (Passed)
- should return false for an email without top-level domain (Passed)
- should return false for an email with spaces (Passed)
- should return false for an empty string (Passed)
- should return false for a null input (Passed)
- should return false for an undefined input (Passed)

## Final Output : 2 test cases failed , other passed

```
Test Suites: 1 failed, 1 total
Tests:      2 failed, 12 passed, 14 total
Snapshots:  0 total
Time:       0.84 s, estimated 1 s
```

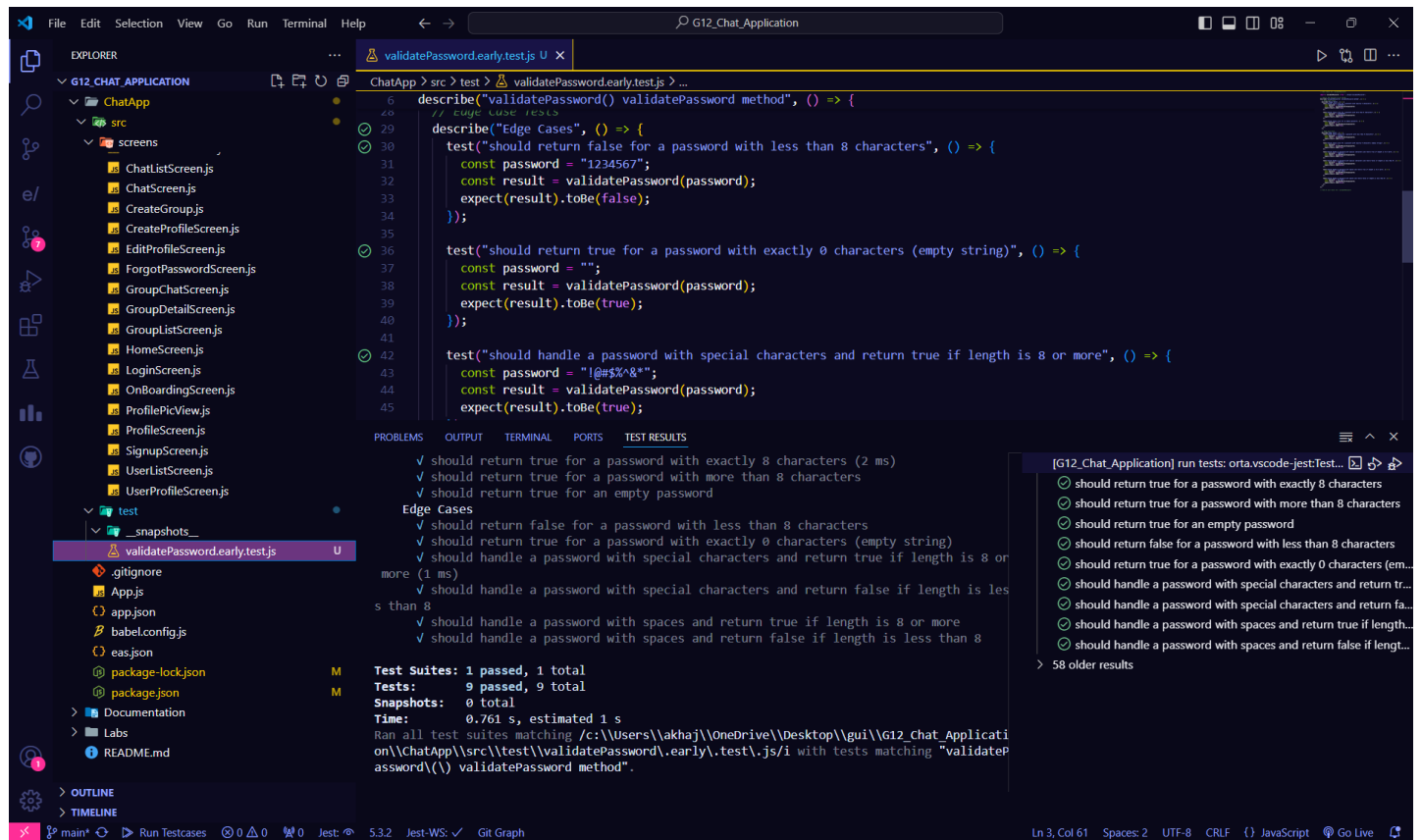
[G12\_Chats\_Application] run tests: orta.vscode-jest:Test...

- ✗ should return false for an email with consecutive dots
- ✗ should return false for an email with special characters
- ✓ should return true for a valid email with simple structure
- ✓ should return true for a valid email with subdomain
- ✓ should return true for a valid email with plus sign
- ✓ should return true for a valid email with numbers
- ✓ should return true for a valid email with hyphen
- ✓ should return false for an email without "@" symbol
- ✓ should return false for an email without domain
- ✓ should return false for an email without top-level domain
- ✓ should return false for an email with spaces
- ✓ should return false for an empty string
- ✓ should return false for a null input
- ✓ should return false for an undefined input

> 51 older results



# Test Suite 7 : for Validate Password Field



```
describe("validatePassword() validatePassword method", () => {
  // edge case tests
  describe("Edge Cases", () => {
    test("should return false for a password with less than 8 characters", () => {
      const password = "1234567";
      const result = validatePassword(password);
      expect(result).toBe(false);
    });

    test("should return true for a password with exactly 0 characters (empty string)", () => {
      const password = "";
      const result = validatePassword(password);
      expect(result).toBe(true);
    });

    test("should handle a password with special characters and return true if length is 8 or more", () => {
      const password = "!@#%$^&*";
      const result = validatePassword(password);
      expect(result).toBe(true);
    });
  });
});
```

Test Suites: 1 passed, 1 total  
Tests: 9 passed, 9 total  
Snapshots: 0 total  
Time: 0.761 s, estimated 1 s  
Ran all test suites matching /c:\Users\akha\OneDrive\Desktop\gui\G12\_Chat\_Application\src\test\validatePassword\early\test.js/i with tests matching "validatePassword(\) validatePassword method".

# Final Output : All test cases Passed

```
Test Suites: 1 passed, 1 total
Tests: 9 passed, 9 total
Snapshots: 0 total
Time: 0.761 s, estimated 1 s
Ran all test suites matching /c:\Users\akha\OneDrive\Desktop\gui\G12_Chat_Application\src\test\validatePassword\early\test.js/i with tests matching "validatePassword(\) validatePassword method".
```

[G12\_Chat\_Application] run tests: orta.vscode-jest:Test...

- ✓ should return true for a password with exactly 8 characters
- ✓ should return true for a password with more than 8 characters
- ✓ should return true for an empty password
- ✓ should return false for a password with less than 8 characters
- ✓ should return true for a password with exactly 0 characters (empty string)
- ✓ should handle a password with special characters and return true if length is 8 or more
- ✓ should handle a password with special characters and return false if length is less than 8
- ✓ should handle a password with spaces and return true if length is 8 or more
- ✓ should handle a password with spaces and return false if length is less than 8

> 58 older results



## Test Suite 8 : for Sign Up Form

VS Code interface showing the test results for the Sign Up Form. The Explorer panel on the left shows the project structure with 'signUpForm.test.js' selected. The main editor shows the test code. The Test Results panel on the right shows a list of test cases, with one failed: 'renders the ActivityIndicator when loading'. The bottom status bar shows '1 failed, 7 passed, 8 total'.

```
describe("SignUpForm Component", () => {
  it("renders the CustomInput for password", () => {
    // ...
  });
  it("renders the CustomInput for confirm password", () => {
    // ...
  });
  it("renders the ReusableButton for sign up", () => {
    // ...
  });
});
```

Test Suites: 1 failed, 1 total  
Tests: 1 failed, 7 passed, 8 total  
Snapshots: 1 passed, 1 total  
Time: 1.311 s

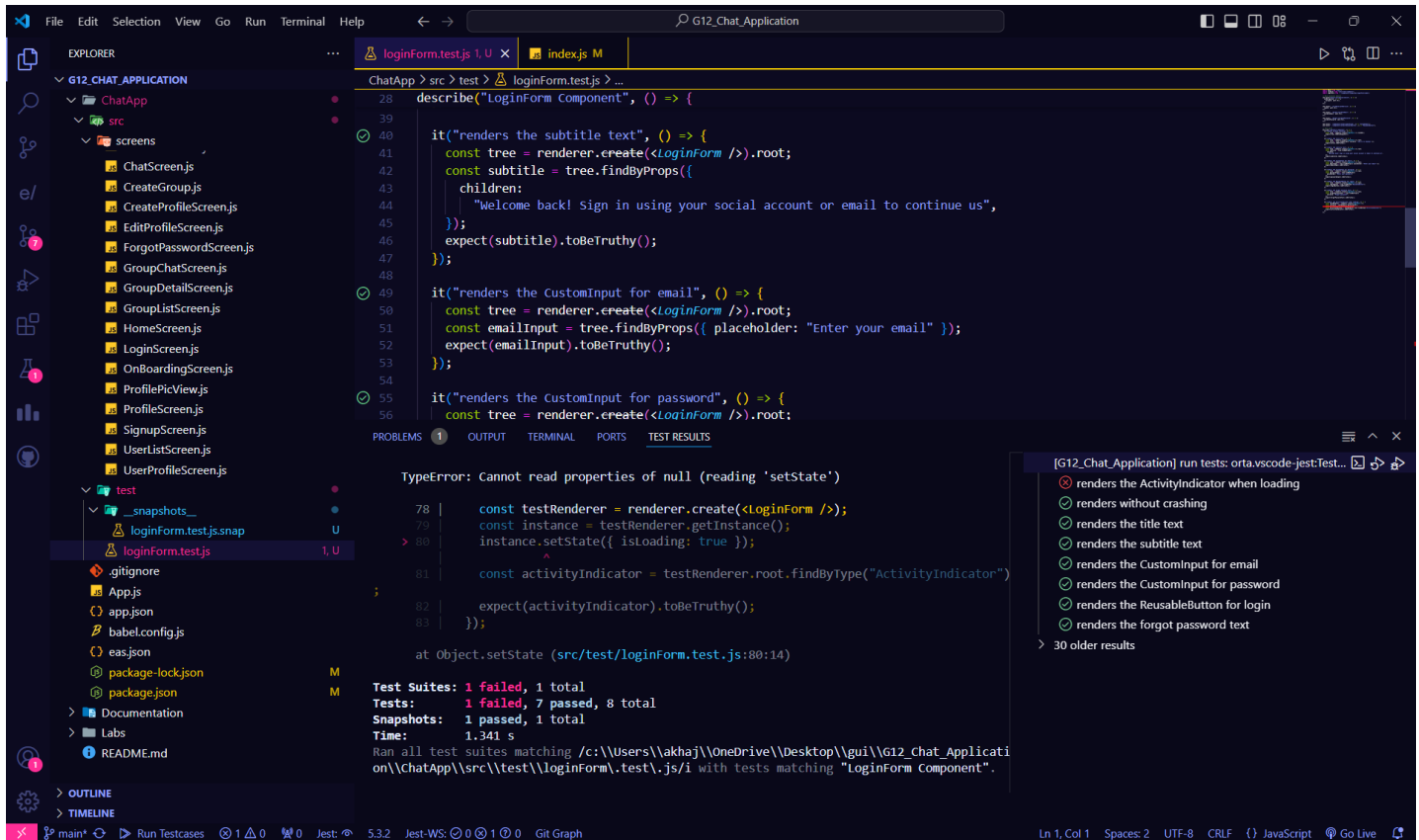
[G12\_Chats\_Application] run tests: orta.vscode-jest:Test...  
✗ renders the ActivityIndicator when loading  
✓ renders without crashing  
✓ renders the title text  
✓ renders the CustomInput for name  
✓ renders the CustomInput for email  
✓ renders the CustomInput for password  
✓ renders the CustomInput for confirm password  
✓ renders the ReusableButton for sign up  
> 37 older results

## Final Output : 1 test case failed , other passed

```
Test Suites: 1 failed, 1 total
Tests: 1 failed, 7 passed, 8 total
Snapshots: 1 passed, 1 total
Time: 1.311 s
Ran all test suites matching /c:\\Users\\a\\
```

```
[G12_Chats_Application] run tests: orta.vscode-jest:Test...
✗ renders the ActivityIndicator when loading
✓ renders without crashing
✓ renders the title text
✓ renders the CustomInput for name
✓ renders the CustomInput for email
✓ renders the CustomInput for password
✓ renders the CustomInput for confirm password
✓ renders the ReusableButton for sign up
> 37 older results
```

## Test Suite 9 : for Log In Form

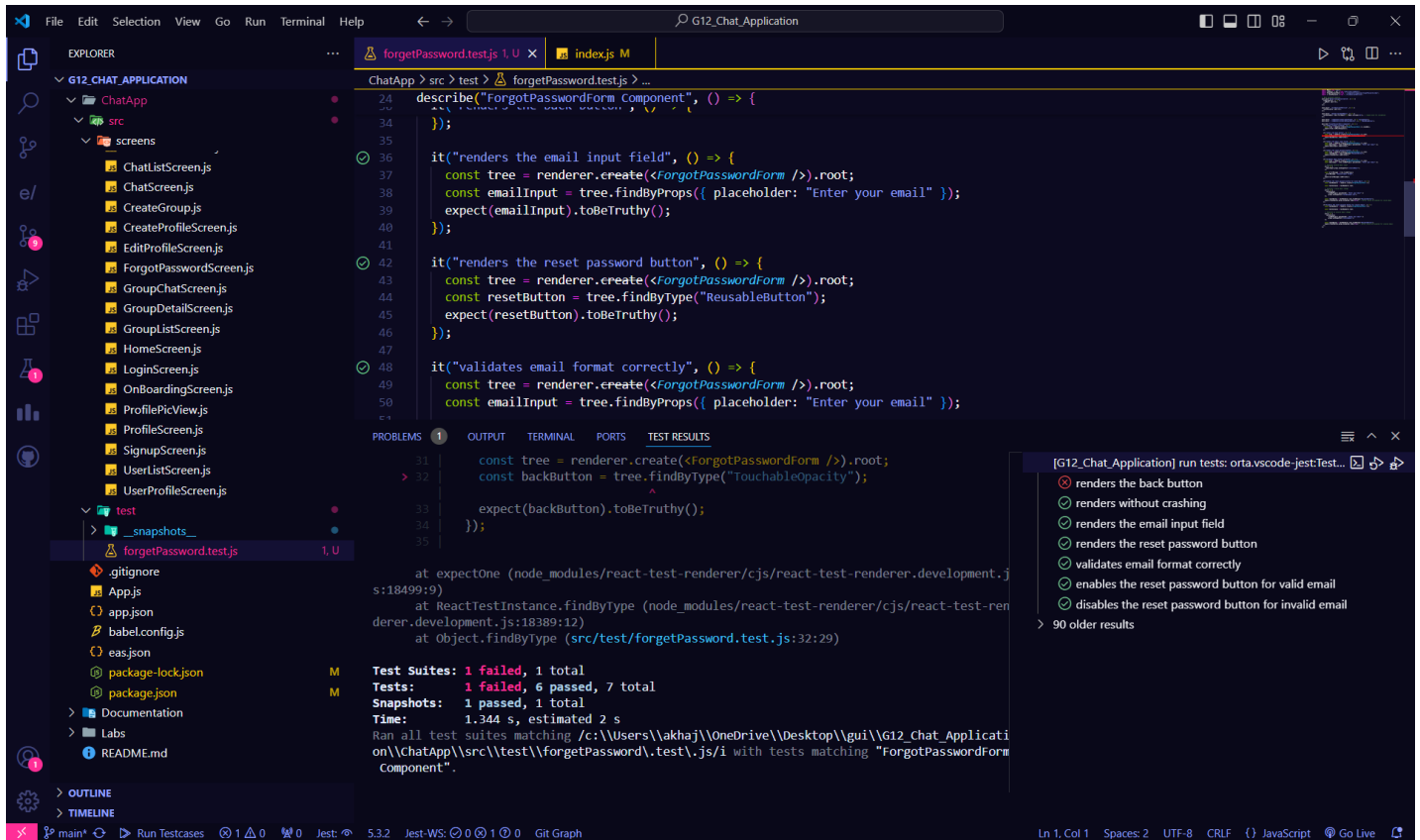


## Final Output : 1 test case failed , other passed

```
Test Suites: 1 failed, 1 total
Tests:      1 failed, 7 passed, 8 total
Snapshots:  1 passed, 1 total
Time:       1.341 s
Ran all test suites matching /c:\Users\ak
```

```
[G12_Chart_Application] run tests: orta.vscode-jest:Test...
✗ renders the ActivityIndicator when loading
✓ renders without crashing
✓ renders the title text
✓ renders the subtitle text
✓ renders the CustomInput for email
✓ renders the CustomInput for password
✓ renders the ReusableButton for login
✓ renders the forgot password text
> 30 older results
```

# Test Suite 10 : for Forget Password



## Final Output : 1 test case failed , other passed

```
Test Suites: 1 failed, 1 total
Tests:      1 failed, 6 passed, 7 total
Snapshots: 1 passed, 1 total
Time:       1.344 s, estimated 2 s
Ran all test suites matching /c:\\Users\\ak
```

```
[G12_Chats_Application] run tests: orta.vscod-jest:Test...
✗ renders the back button
✓ renders without crashing
✓ renders the email input field
✓ renders the reset password button
✓ validates email format correctly
✓ enables the reset password button for valid email
✓ disables the reset password button for invalid email
> 90 older results
```

# All Test Suites In One Go :

The screenshot displays the VS Code interface with the following components:

- Explorer (Left):** Shows the project structure for 'G12\_CHAT\_APPLICATION'. The 'test' directory is expanded, listing various test files like 'chatListItem1.test.js', 'forgotPassword.test.js', 'input.test.js', etc.
- Editor (Center):** Displays the code for 'input.test.js'. It shows a Jest test suite with a 'describe' block for 'renders the back button' and an 'it' block. A red error message is visible: 'TypeError: Cannot read properties of null (reading 'setState')'.
- Test Results (Right):** A detailed list of test results for the 'G12\_Chats\_Application' run. It includes a summary of 5 failed, 5 passed, and 10 total test suites. Below this, a list of specific test cases is shown, each with a status icon (green for pass, red for fail) and a description of the test.

**Test Results Summary:**

- Test Suites: 5 failed, 5 passed, 10 total
- Tests: 3 failed, 32 passed, 35 total
- Snapshots: 2 written, 7 passed, 9 total
- Time: 4.092 s

**Test Results List:**

- renders without crashing
- renders the title text
- renders the subtitle text
- renders the CustomInput for email
- renders the CustomInput for password
- renders the ReusableButton for login
- renders the forgot password text
- renders without crashing
- renders the email input field
- renders the reset password button
- validates email format correctly
- enables the reset password button for valid email
- disables the reset password button for invalid email
- renders without crashing
- renders the title text
- renders the CustomInput for name
- renders the CustomInput for email
- renders the CustomInput for password
- renders the CustomInput for confirm password
- renders the ReusableButton for sign up
- renders the 'Sign up with mail' button
- navigates to the 'Signup' screen when 'Sign up with mail' button is pressed
- renders correctly
- navigates to ProfilePicView on profile image press
- should render the button with the correct text
- should apply the correct background color when not disabled
- should apply the disabled style when the button is disabled
- renders correctly with given props
- renders left icon correctly
- displays error message when provided
- renders correctly with given props
- does not highlight text when searchQuery does not match