GROUP – 28

SYSTEM TESTING Landing , Signup and Login

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Introduction

This document explains the system testing done for the Signup, Login, and Landing Page of the Smart Expense app. We used Black-Box Testing methods such as Equivalence Class Partitioning (ECP) and Boundary Value Analysis (BVA) to check how the system behaves with different types of inputs. Acceptance Testing was also performed to verify real user actions like submitting forms and navigating through the app.

Along with validation testing for Signup and Login, the Landing Page was tested for overall usability, navigation, and support form functionality to ensure a smooth and responsive user experience.

BlackBox Testing - Landing Page

1] Landing Page – System Constraints

- **Support Form:** All fields must be filled; email must be valid; empty form cannot be submitted; after submitting, show success message and close the popup.

- **Theme Switch:** On Clicking the sun/moon icon theme should change from Light to Dark (or vice versa) instantly.
- **Page Display:** Page should open without login; text and images should look correct in both themes.
- **Watch** Demo**:** Button should play or open a demo video showing how the app works.
- **Create Account Button:** Should open the signup page when clicked.

2] Equivalence Class Partitioning (ECP) – Landing Page

Class	Support Form Fields (Name, Subject, Message)	Email Format	Support Button Click	Expected Result
E1	valid	valid	clicked	Success (form submits + success toast)
E2	invalid (any empty field)	valid	clicked	Error, cannot submit
E3	valid	invalid (wrong format)	clicked	Error, invalid email
E4	— (form not opened yet)	—	clicked	Support popup opens
E5	—	—	not clicked	No action / stays on page

3] Boundary Value Analysis (BVA) – Landing Page
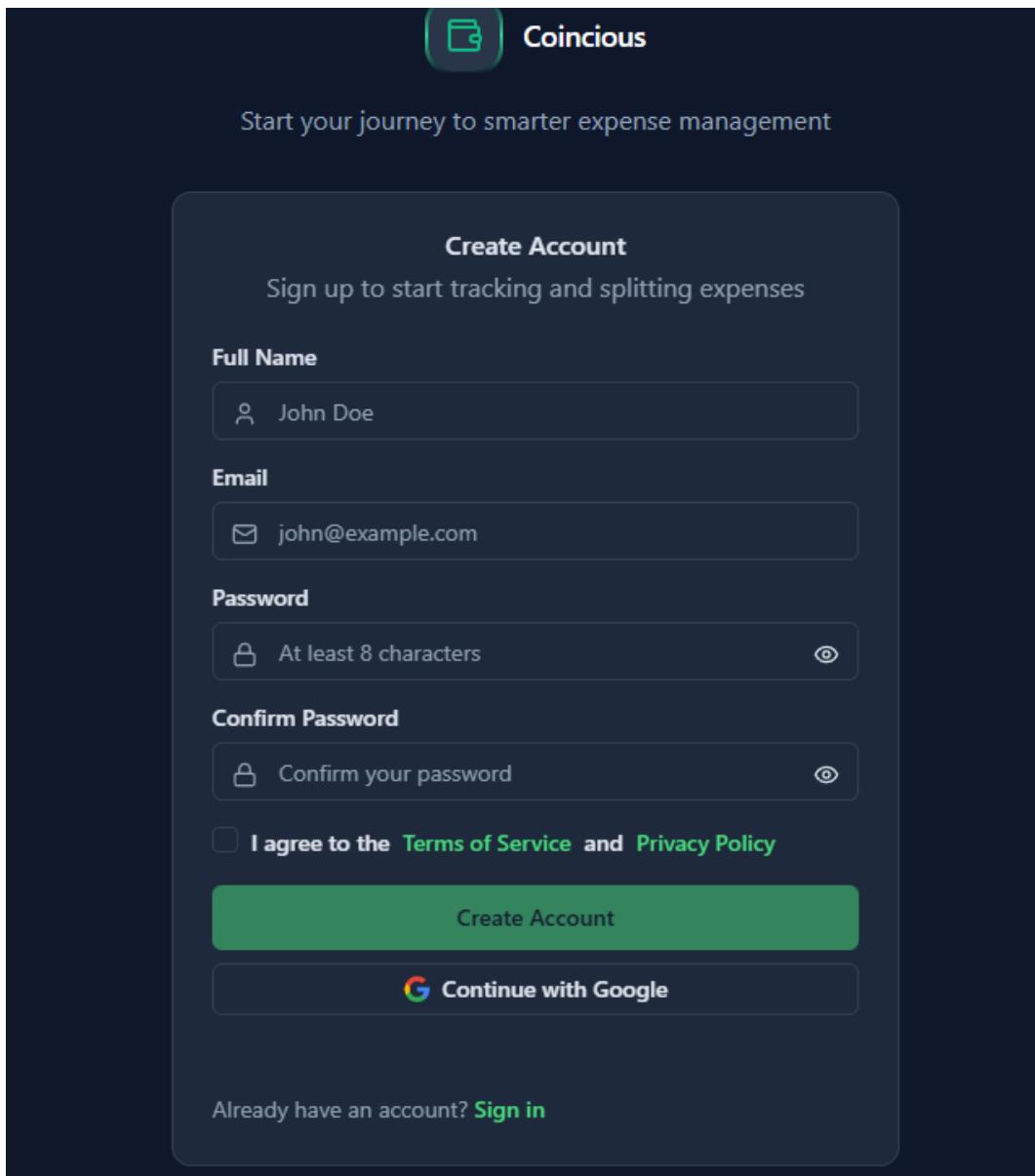
Field	Boundary Value	Expected Result
Name / Subject / Message	Empty	Error shown
Name / Subject / Message	1 character	Accepted

Email	Empty / invalid (abc@)	Error
Email	First valid (a@gmail.com)	Accepted
Submit	All fields valid	Success message & close popup
Theme Toggle	1 click	Switches theme

Acceptance Testing – Landing Page

Test Case 1 – Create Account Button Navigation

- **Action:** User clicks the Create Account button.
- **Expected Output:** The system should navigate to the Signup Page.
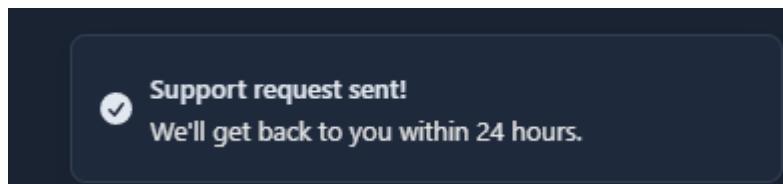
Test Case 2 – Watch Demo Button Functionality

- **Action:** User clicks Watch Demo button.
- **Expected Output:** Demo video should play .

Test Case 3 – Support Form Valid Submission

- **Action:** Enter valid Name, valid Email, Subject, and Message and click Submit.
- **Expected Output:** Form should submit and success message will appear.

Support request sent!
We'll get back to you within 24 hours.
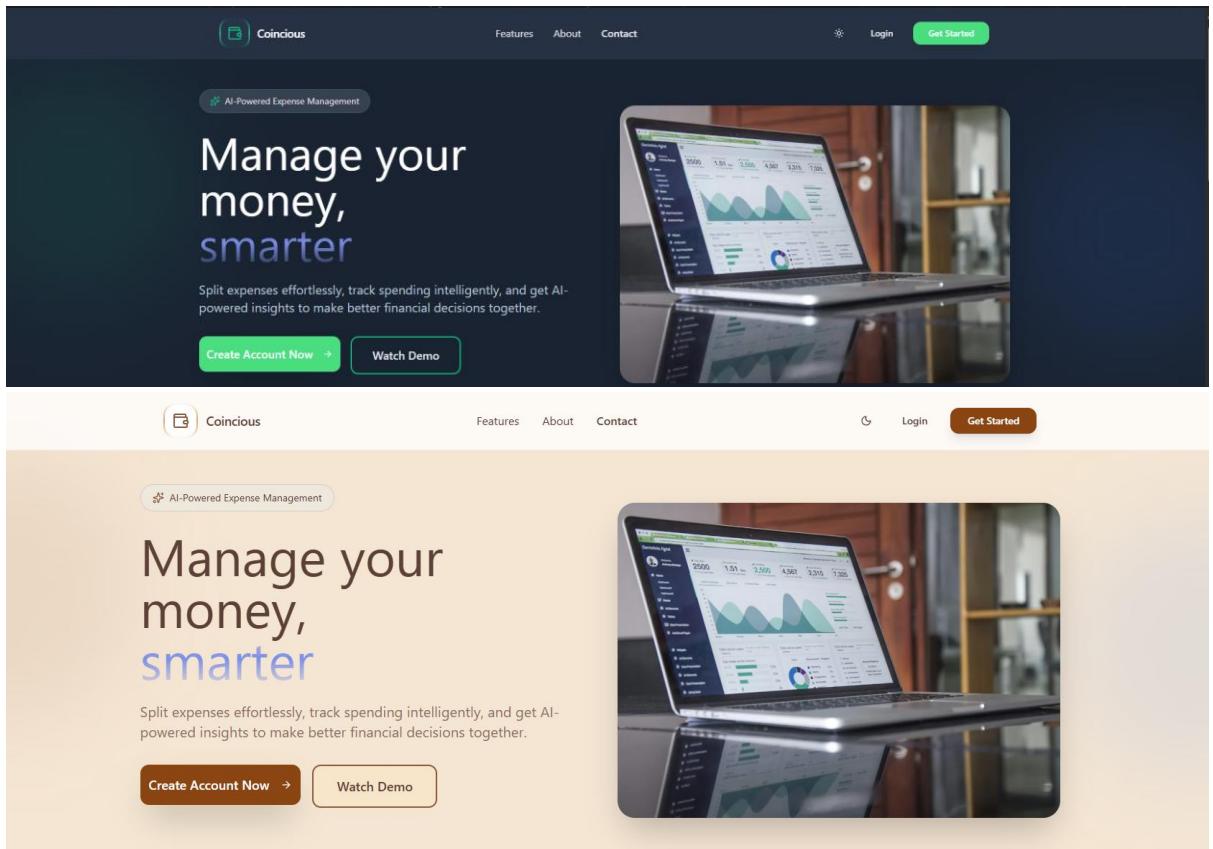
Test Case 4 – Support Form Invalid Submission

- **Input:** Leave one or more fields blank and click Submit.
- **Expected Output:** Error message should display and form **should not submit**.

Test Case 5 – Theme Toggle Behaviour

- **Input:** Click the Theme Toggle icon.
- **Expected Output:** Page should switch between Light Mode ↔ Dark Mode immediately.

BlackBox Testing — Signup Page

1. Signup Test

Field Constraints:

Full Name Constraints:

- Cannot be empty.

- Must contain at least one alphabetic character.

Email Constraints:

- Cannot be empty.

- Must follow proper email format (example@ex.com)

- Must not already be registered, new Entries only.

Password Constraints:

- Cannot be empty.

- Must contain at least 8 characters.

- At least one Uppercase letter.

- At least one Numerical value from 0 to 9 .

- Atleast one lowercase letter.

- At least one Special character example: !,@,#

Confirm Password Constraints:

- Must match the above password field exactly.

Terms & Conditions Checkbox Constraint:

- Should be ticked for further process

Equivalence Class Partitioning (ECP)

Equivalence Class	Full Name	Email	Password	Confirm Password	T&C Checkbox	Result
E1	valid	valid	valid (meets all 5 rules)	valid	checked	success
E2	valid	invalid	valid	valid	checked	error
E3	valid	valid	invalid (fails ≥1 rule)	valid	checked	error
E4	valid	valid	valid	invalid	checked	error
E5	valid	valid	valid	valid	unchecked	error
E6	invalid	valid	valid	valid	checked	error
E7	invalid	valid	invalid	valid	checked	error
E8	invalid	invalid	invalid	invalid	unchecked	error

Boundary Value Analysis (BVA)

Full Name	Email	Password	Confirm Password	T&C	Expected	Actual	Reason
John	john@example.com	Ab1@ (4 chars)	Ab1@	✓	fail	fail	Length < 8
John	john@example.com	abcdefgh	abcdefgh	✓	fail	fail	Missing uppercase, number, special
John	john@example.com	Abcdefgh	Abcdefgh	✓	fail	fail	Missing number + special
John	john@example.com	Abcd1234	Abcd1234	✓	fail	fail	Missing special character
John	john@example.com	Abcd@123	Abcd@12	✓	fail	fail	Confirm password mismatch
John	john@example.com	Abcd@123	Abcd@123	✗	fail	fail	T&C not accepted
John	existing@gmail.com	Abcd@123	Abcd@123	✓	fail	fail	Email already registered
John	newuser@gmail.com	Abcd@123	Abcd@123	✓	success	success	Fully valid input

BlackBox Testing — Login Page

1. Login Test

Field Constraints

Email Constraints:

- Cannot be empty.
- Must follow valid email pattern.
- Must be a registered ID.

Password Constraints:

- Cannot be empty.
- Must match the password stored for the given registered email.

Forgot Password Constraints

In the "Reset Password" modal:

Email Constraints (Reset Password):

- Cannot be empty.

- Must follow valid email pattern.

- Must be registered — reset link only worked for registered user

Button Behaviour:

- "Send Reset Email" must trigger an error if:

  o Email invalid

  o Email unregistered

  o Email empty

Equivalence Class Partitioning (ECP)

Equivalence Class	Email	Password	Result
E1	valid	valid	success
E2	invalid	valid	error
E3	valid	invalid	error
E4	invalid	invalid	error
E5	valid but **not registered**	valid	error
E6	valid	valid but **incorrect**	error

Forgot Password — Equivalence Class Partitioning (ECP)

Equivalence Class	Email	Result
F1	valid & registered	success
F2	invalid format	error
F3	empty email	error
F4	valid format but **not registered**	error

Boundary Value Analysis (BVA)

Email	Password	Expected Output	Actual Output	Reason
"" (empty)	Abcd@123	fail	fail	Email cannot be empty
"a@"	Abcd@123	fail	fail	Invalid email format
admin@gmail.com	"" (empty)	fail	fail	Password cannot be empty
user@demo.com	"abc"	fail	fail	Incorrect password
unregistered@gmail.com	Abcd@123	fail	fail	Email not registered
user@demo.com	password	success	success	Valid login with correct credentials

Forgot Password — Boundary Value Analysis (BVA)

Email	Expected Output	Actual Output	Reason
"" (empty)	fail	fail	Email cannot be empty
"a@"	fail	fail	Invalid email format
unregistered@gmail.com	fail	fail	Email not found in database
admin@demo.com	success	success	Valid email — reset link sent

Acceptance Testing — Signup Page

Sign-Up Page

Test 1 — Invalid Email Format

Full Name: John Doe

Email: john@

Password: Abcd@123

Confirm Password: Abcd@123

T&C Checkbox: ✓ Checked

Expected Output: Invalid (Email format error)

Test 2 — Password constraints not fulfilled.

Full Name: TImepass
Email: you@gmail.com
Password: 1234567
Confirm Password: 1234567
T&C Checkbox: ✓ Checked
Expected Output: Invalid (Password must be ≥ 8 characters)

Test 3 — Confirm Password Does Not Match

Full Name: Neel Patel
Email: neel.patel@gmail.com
Password: Abcd@123
Confirm Password: Abcd@12
T&C Checkbox: ✓ CheckedExpected Output: Invalid (Passwords do not match)

Test 3.1- Toggle button functionality

Full Name: Neel Pa
Email: neel.patel@gmail.com
Password: Abcd@123 toggle button clicked

Confirm Password: Abcd@123toggle button clicked
T&C Checkbox: Checked

Create Account

Sign up to start tracking and splitting expenses

Full Name

👤   Neel Pa

Email

✉   neelpatel@gmail.com

Password

🔒   qwertyuiopQ1!   👁‍🗨

Confirm Password

🔒   qwertyuiopQ1!   👁‍🗨

☑ I agree to the **Terms of Service** and **Privacy Policy**

Create Account

G **Continue with Google**

Already have an account? **Sign in**

Test 4 — Terms of service and privacy policy Checkbox Not Selected

Full Name: Nell Patel
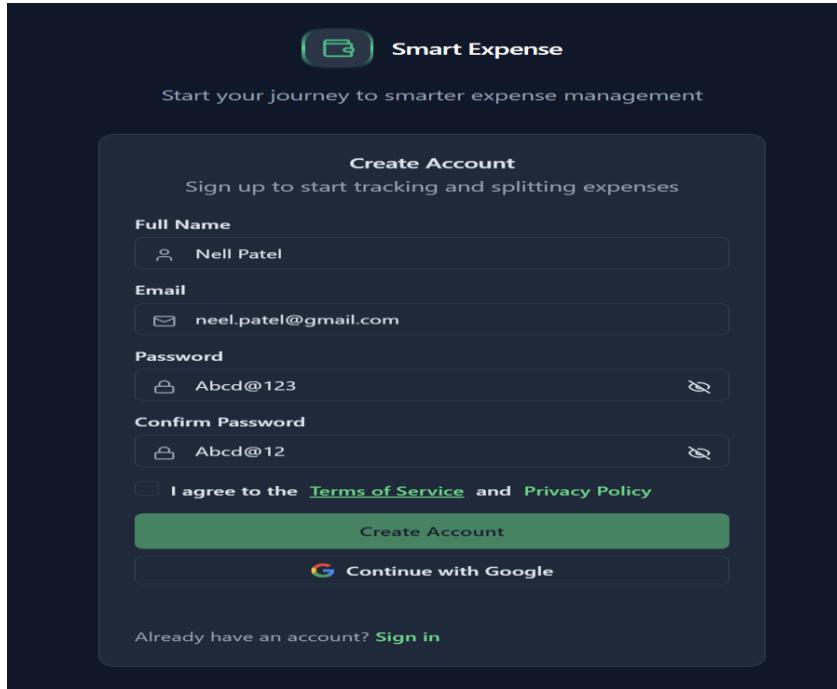
Email: neel.patel@gmail.com

Password: Abcd@123

Confirm Password: Abcd@123

T&C Checkbox: ✗ Not checked

Expected Output: Invalid (User must accept Terms)

Create Account Button is not Clickable

Test 5 — Email Already Registered
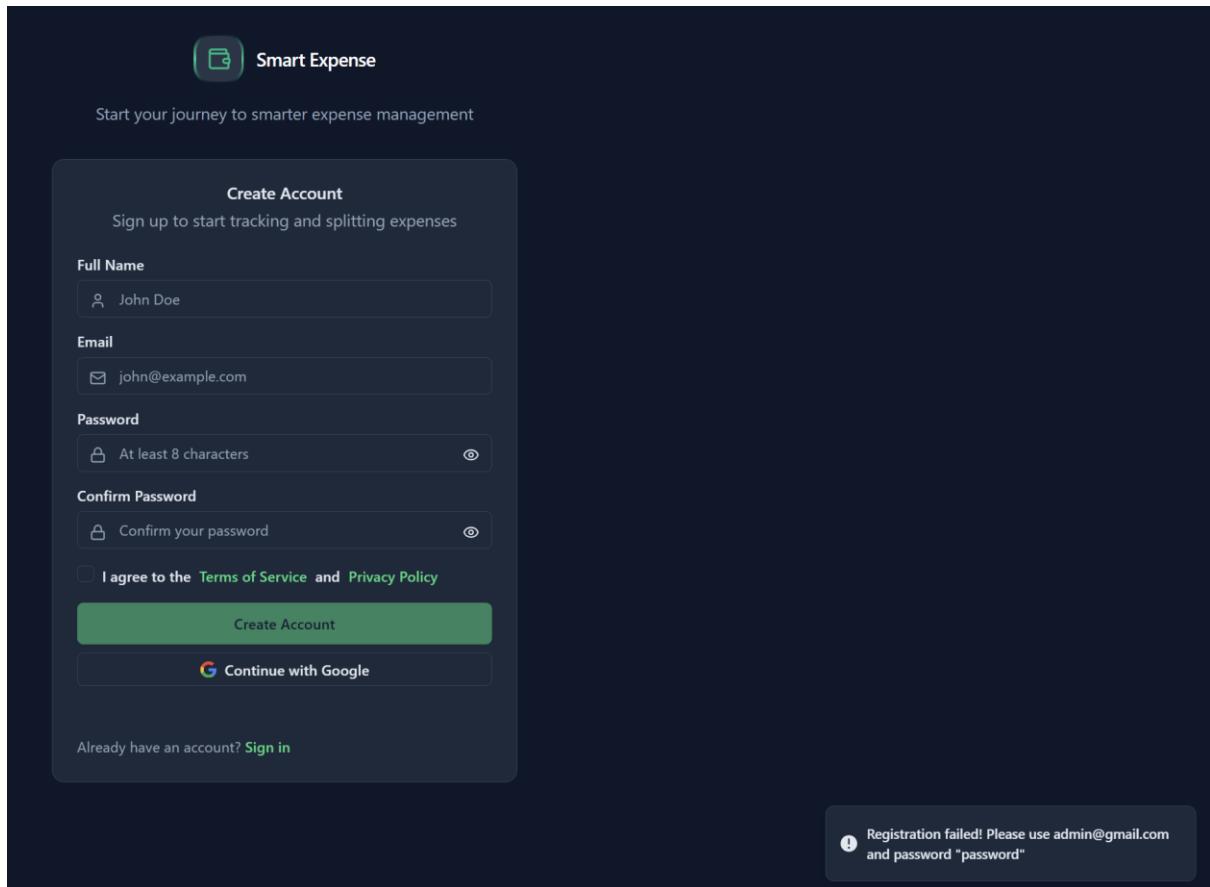
Full Name: Kirtan
Email: 202301409@dau.ac.in
Password: qwertyuiop
Confirm Password:qwertyuiop
T&C Checkbox: ✓ Checked
Expected Output: Invalid (Email already in use)
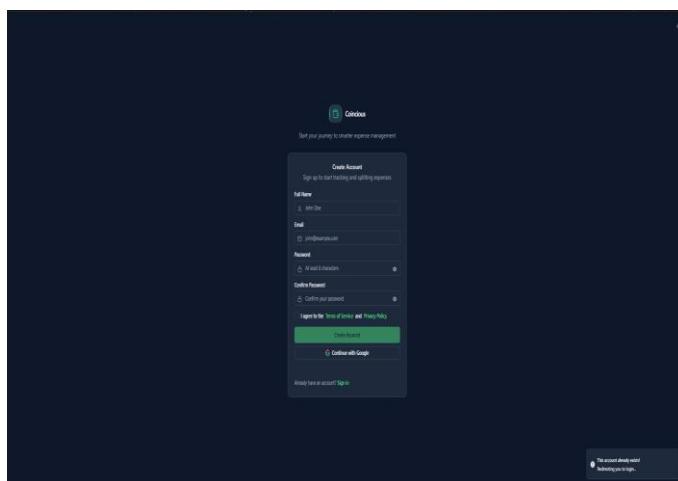
Shows Error signing up , but unclear message.
Message should be User is already registered, try login.

Error solved:

New output:

Will redirect to the login page after this. With proper message popping up

Test 6 — Email Validation
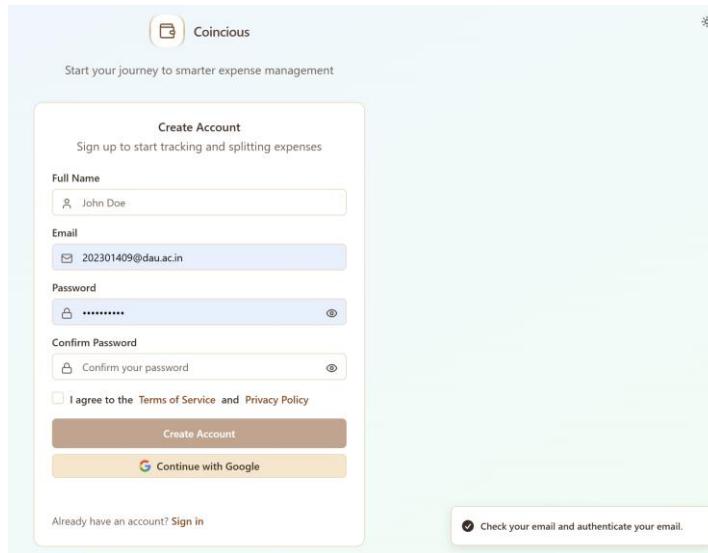
Full Name: random
Email: random@gmail.com
Password: qwertyuiopQ1!
Confirm Password:qwertyuiopQ1!
T&C Checkbox: Checked
Expected Output: Feedback informing a Email sent to the Email address indicating registration of account .
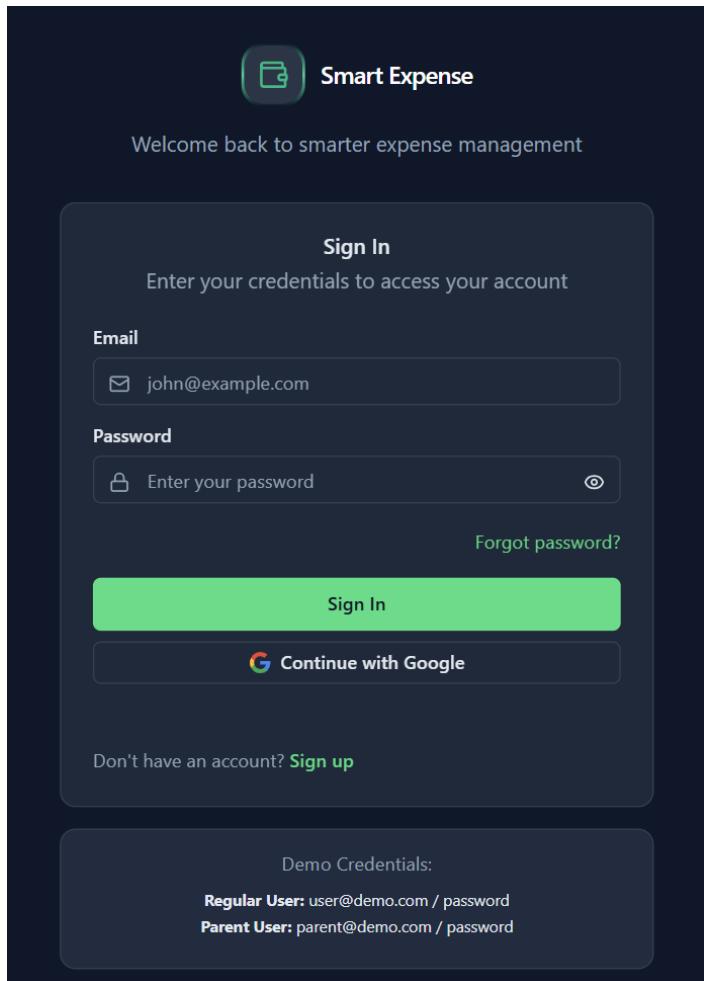
Test 7 – Redirecting to login page from signup

Action : Click "Sign-in" text
expected output : redirects to login page

Acceptance Level Testing
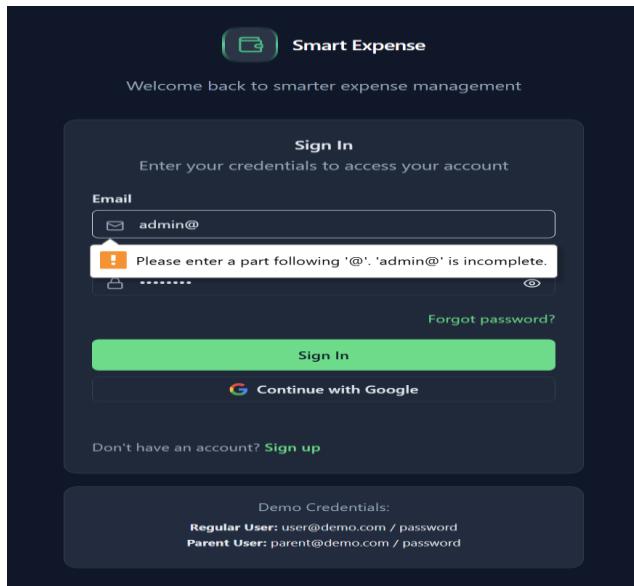
Login-In Page

Test 1 — Invalid Email Format

Email: admin@
Password: Abcd@123
Expected Output: Invalid (Invalid email format)
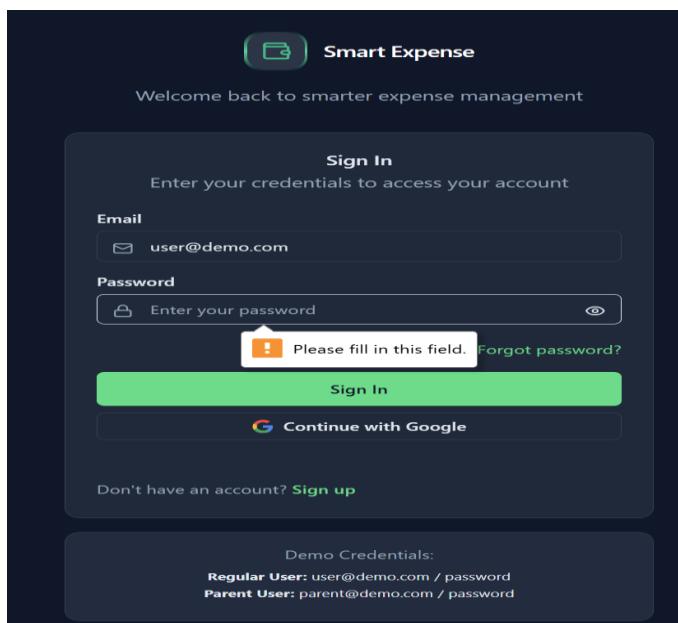
Test 2 — Empty Password Field

Email: user@demo.com
Password: *(empty)*
Expected Output: Invalid (Password cannot be empty)
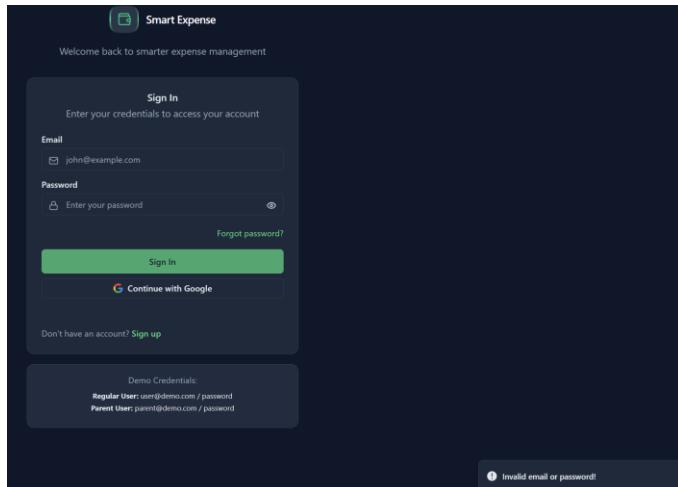
Test 3 — Unregistered Email

Email: randomuser999@gmail.com
Password: Abcd@123

Expected output : Invalid Credentials
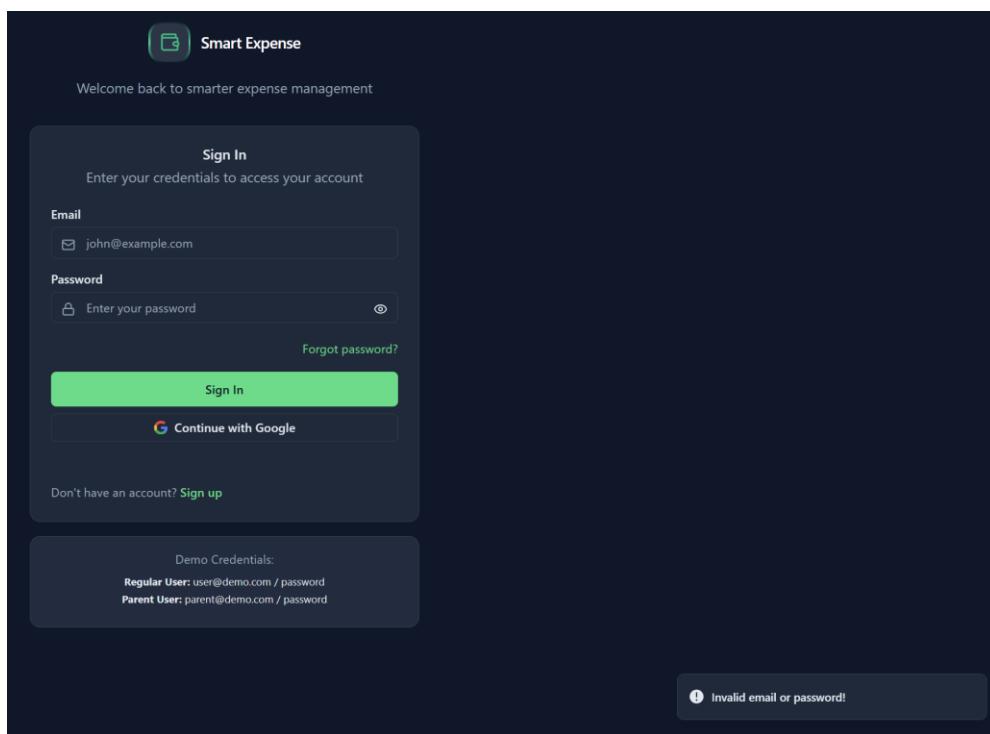
Test 4 — Incorrect Password for Registered Email

Email: user@demo.com
Password: wrongpass
Expected Output: Invalid (Incorrect password)
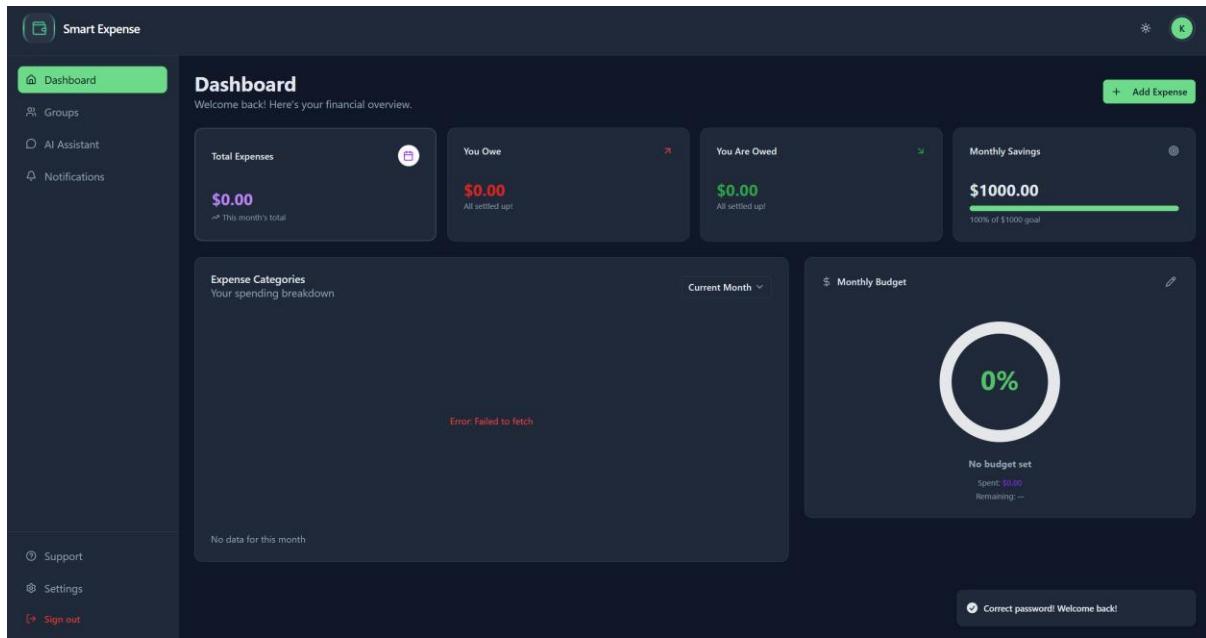
Test 5 — Valid Login Credentials

Email: user@demo.com
**Password:** password
Expected Output: Success (User logged in successfully)
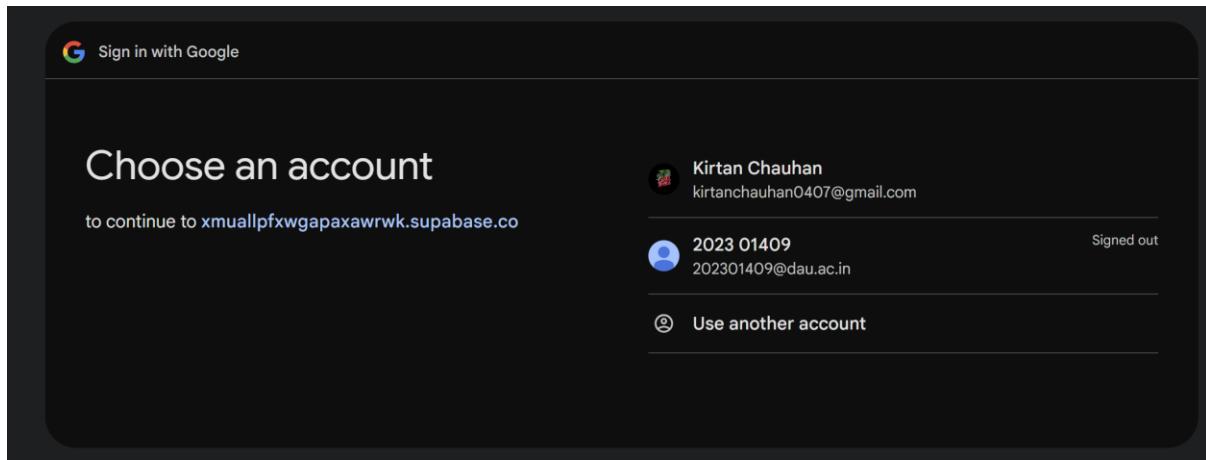
Dashboard shows up with user feedback of correct creds entered .

Test 6 — Google Login Button (UI Acceptance)

Action: Click Continue with Google Button
Expected Output: Google OAuth popup opens

Test 7 – Redirect to Sign-up from login page

Action : Click "Signup" text on login page

Expected output : Redirects to signup page
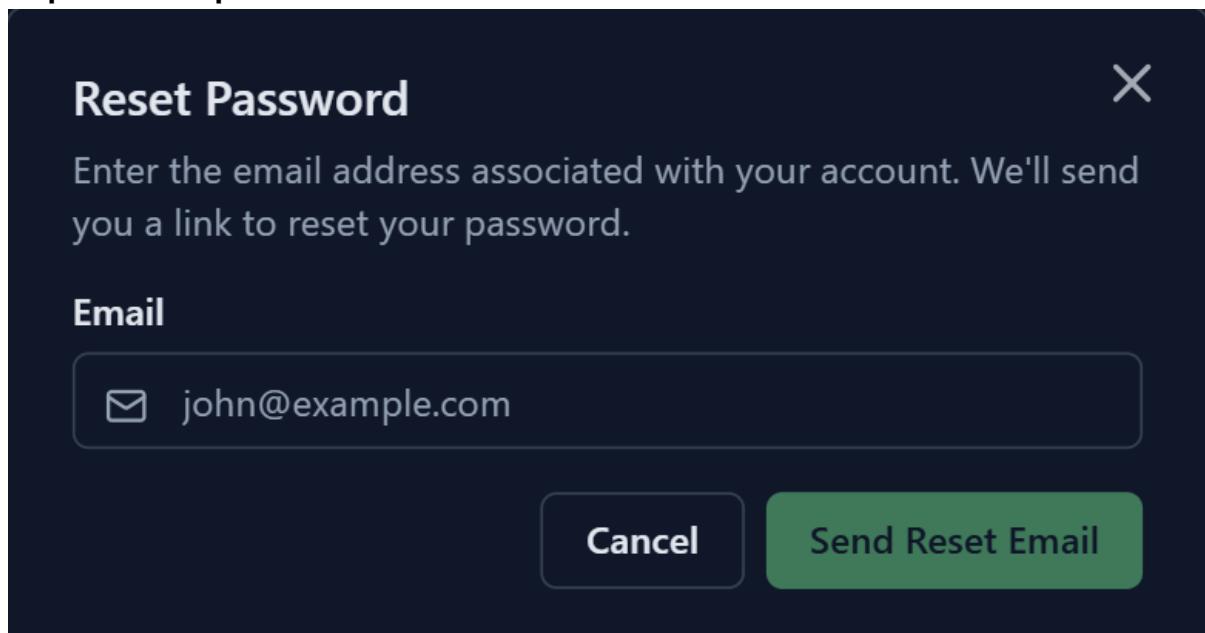
Acceptance Testing — Forgot Password

Test FP-1 — Empty Email Field
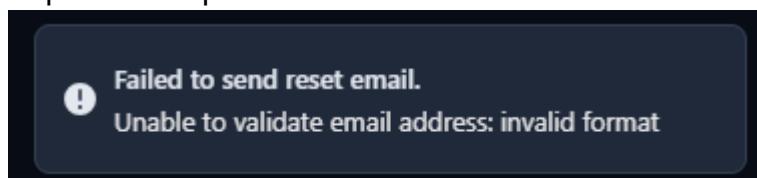
**Email:** Empty
Expected Output: Invalid — Unclickable Button

Test FP-2 — Invalid Email Format

Email: john@
Expected Output: Invalid — incorrect email format
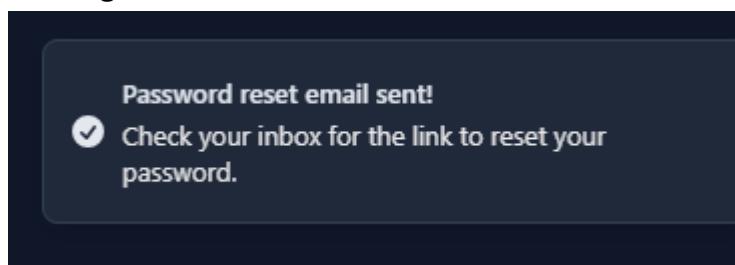
Test FP-3 — Unregistered Email

Email: notarealuser123@gmail.com
Expected Output: Invalid — account does not exist

Output: if account is invalid link will not be sent anywhere. But it will just show this message.

Test FP-4 — Valid Registered Email

Email: joshiruchir35@gmail.com
Expected Output: Success — reset email sent

Password reset email sent!
Check your inbox for the link to reset your
password.