Test Execution & Bug Reporting

3.1 Manual Test Execution

3.1.1 Confusing Email Sign-Up / Sign-In Flow

- **Test Area:** Sign-up / Sign-in page navigation
- **Preconditions:** User is on the Sign-up page
- **Test Steps:**
    1. On the Sign-up page, observe available buttons: “Sign up with Google”, “Sign up with GitHub”, “Sign in with Email”.
    2. Click “Sign in with Email”, redirected to the Sign-in with Email page.
    3. On the Sign-in page, click “Sign up”, which redirects to the Sign-up with Email page.
- **Expected Result:** Direct **Sign-up with Email** button should navigate the user straight to the Sign-up with Email page.
- **Actual Result:** User must click multiple steps to reach the Sign-up with Email page, the flow is not intuitive.
- **Observation:** Navigation is unnecessarily complex for new users.
- **Screenshots / Evidence:**

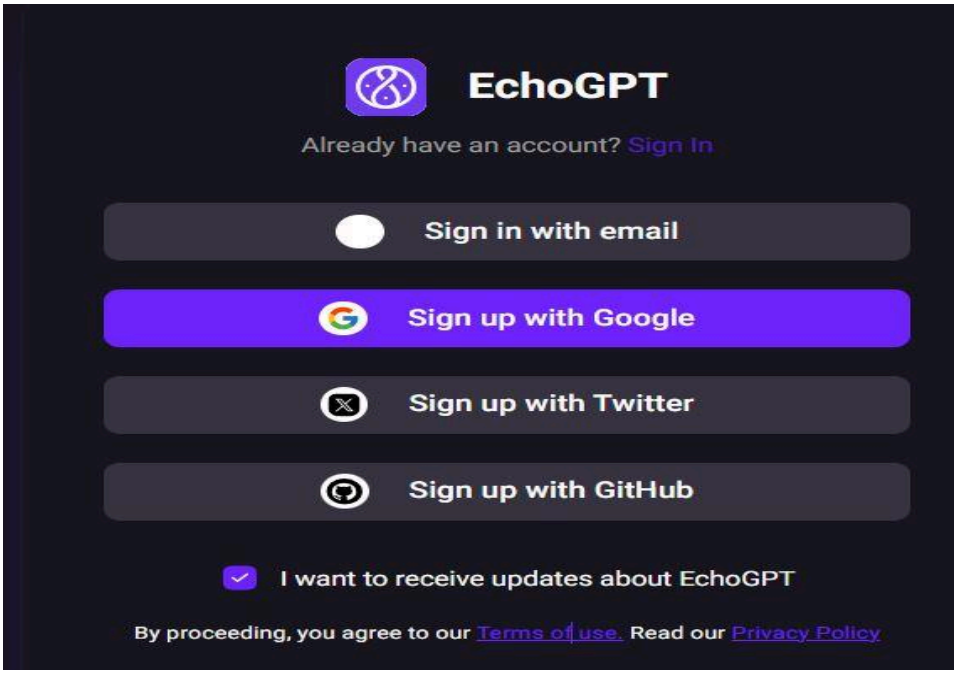

Image 3.1.1.1: Sign-up page

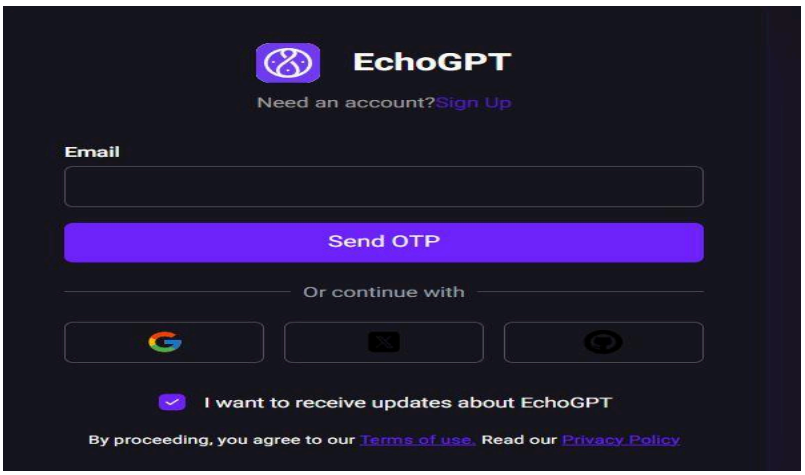

Image 3.1.1.2: Sign-in page after clicking “Sign in with Email”

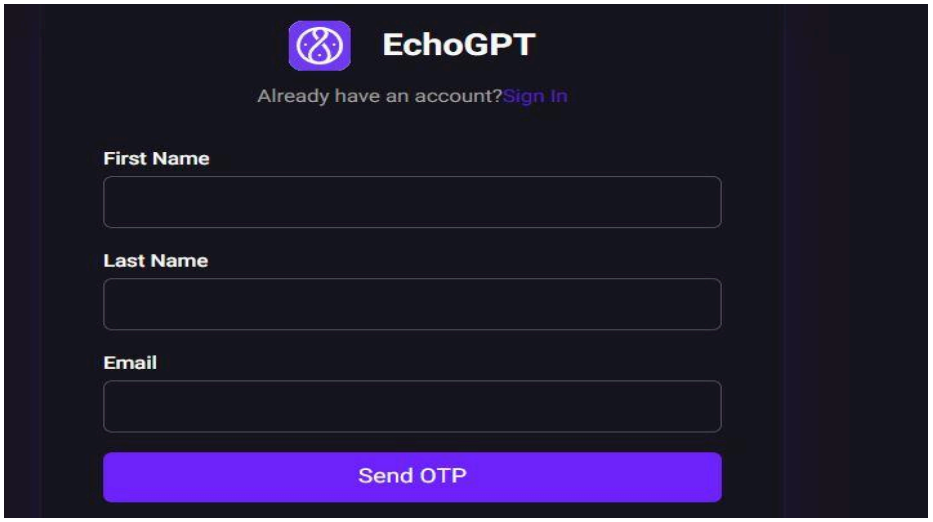

Image 3.1.1.3: Sign-up page after clicking “Sign up”

- **Recommendation:** Add a direct “Sign up with Email” button for simpler, intuitive navigation.

3.1.2 Button Visibility / Color Contrast Issue

- **Test Area:** Sign-up page -> Social sign-up buttons.
- **Preconditions:** User is on the Sign-up page, dark mode enabled
- **Test Steps:**
    1. Open the Sign-up page in dark mode.Google”, “Sign up with GitHub”, “Sign in with Email”.
    2. Observe the visibility of the **Twitter** and **GitHub** sign-up buttons.
    3. Verify buttons are clickable

- **Expected Result:** Buttons clearly visible and easily identifiable.
- **Actual Result:** Buttons are hard to see due to low contrast, though functionality works.
- **Observation:** Poor visibility may affect usability and accessibility.
- **Screenshots / Evidence:**

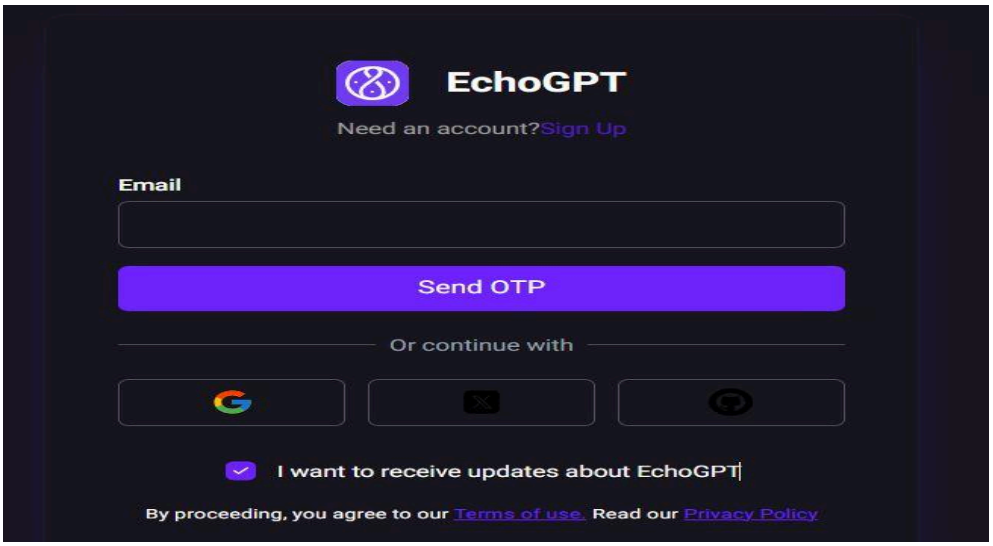

Image 3.1.2.1: Sign-up page after clicking “Sign up”

- **Recommendation:** Improve the color contrast of social buttons for better accessibility.

3.1.3 Wrong OTP Verification

- **Test Area:** OTP Verification – Sign-in / Sign-up
- **Preconditions:** OTP sent to registered email
- **Test Steps:**
    1. Enter the wrong OTP on the verification page.
    2. Click Send OTP.
- **Expected Result:** Display “Invalid OTP” message; user stays on OTP page and is not logged in.
- **Actual Result:** User is redirected to the homepage without login; no error message is shown.
- **Observation:** System does not properly handle wrong OTP; may confuse users.
- **Screenshots / Evidence:**

Image 3.1.3.1: Send OTP in the given email

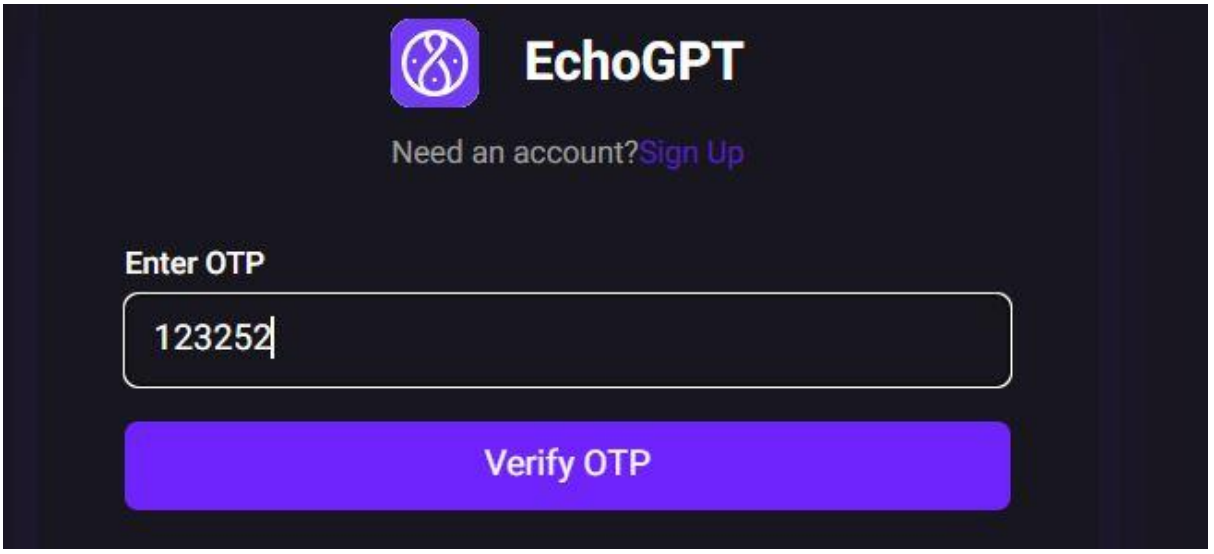

Image 3.1.3.2: Enter wrong OTP

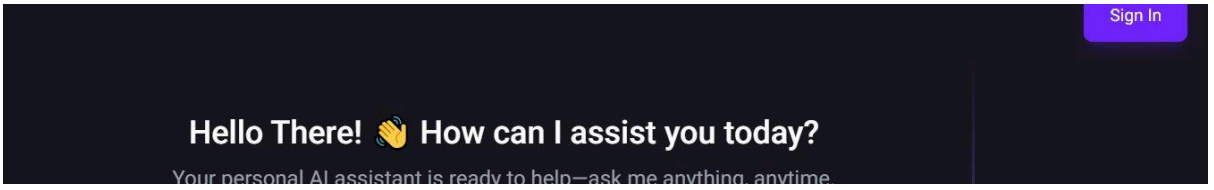

Image 3.1.3.3: Redirected to homepage without login

- **Recommendation:** Display a proper “Invalid OTP” message and prevent redirection to the homepage on failure.

3.1.4 Sign in with Non-Registered Email

- **Test Area:** Sign-in functionality → Email OTP
- **Preconditions:** User is on the sign-in page
- **Test Steps:**

1. Enter an email that is not registered.
2. Click "Send OTP."

- **Expected Result:** Display a clear error message like “Email not registered”; user should remain on the sign-in page; no OTP sent.
- **Actual Result:** User is redirected to the OTP page; no OTP is sent and no error message is shown.
- **Observation:** The System prevents login but does not inform the user about the unregistered email, which can confuse users.
- **Screenshots / Evidence:**

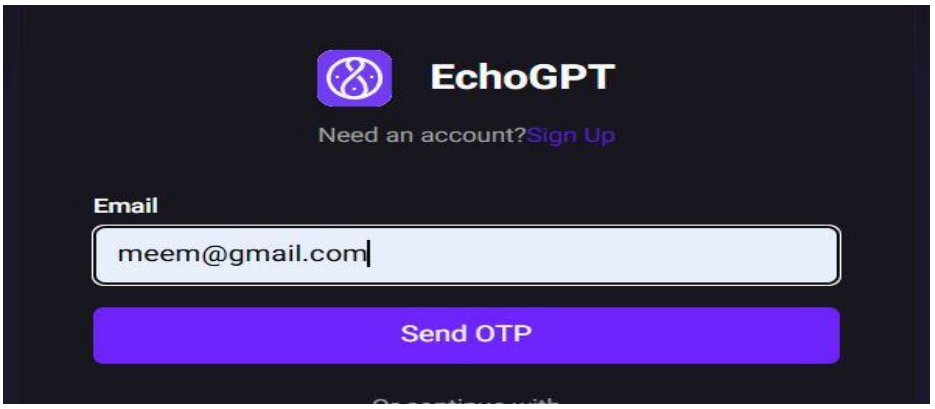

Image 3.1.4.1: Enter a non-registered email

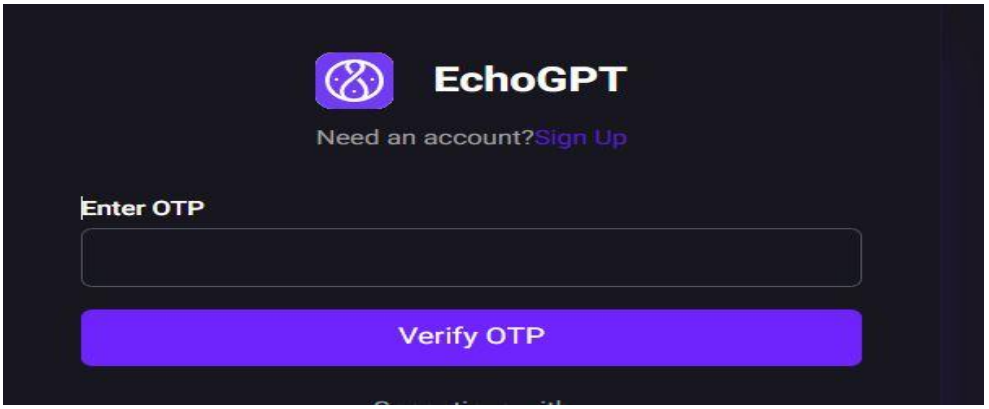

Image 3.1.4.2: Show OTP screen

- **Recommendation:** Display a proper error message for non-registered emails and prevent redirect to the OTP page.

3.1.5 Sign Up with Already Registered Email

- **Test Area:** Sign-up functionality → Email OTP
- **Preconditions:** User is on the sign-up page.
- **Test Steps:**
    1. Enter an email that is already registered.
    2. Click "Send OTP."
- **Expected Result:** Display a clear error message like “Email already registered”; user should remain on the sign-up page; no OTP sent.
- **Actual Result:** User is redirected to the OTP page; no OTP is sent, and no error message is displayed.
- **Observation:** Account duplication is blocked functionally, but lack of an error message affects user experience
- **Screenshots / Evidence:**

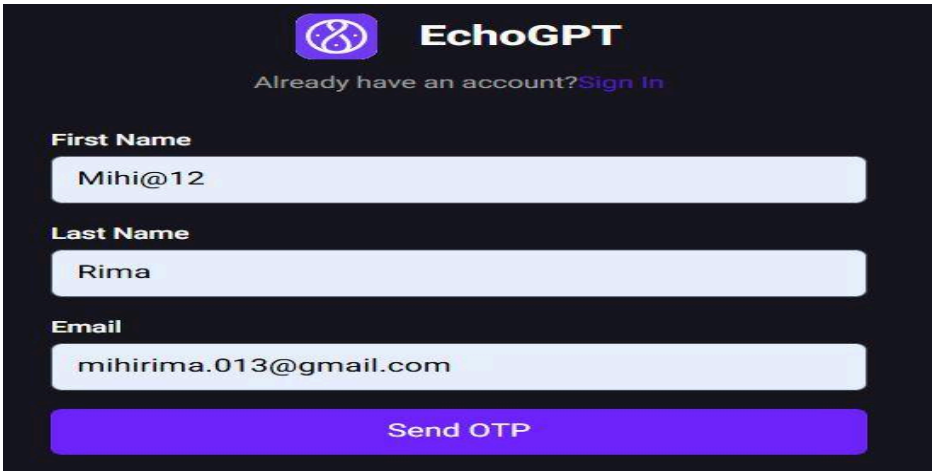

Image 3.1.5.1: Try to register with a registered email

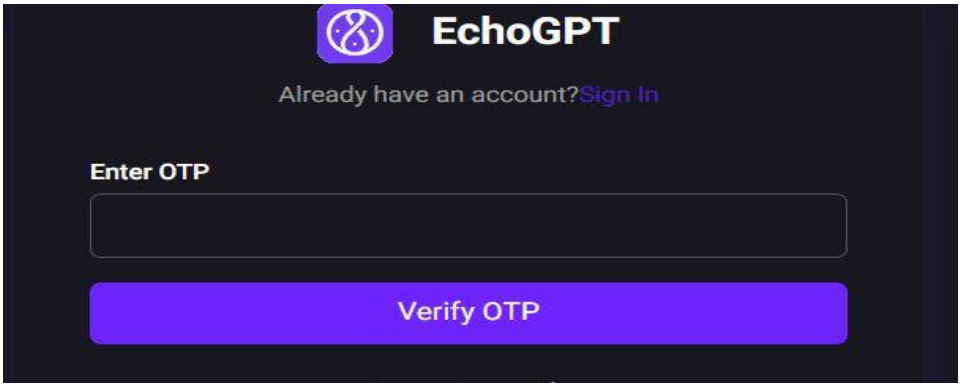

Image 3.1.5.2: No error message is displayed

- **Recommendation:** Show a proper “Email already registered” message and prevent redirect to OTP page.

3.2 Bug Reports

Bug Report 1

- **Bug ID:** ECHO-AUTH-001
- **Title:** Session persists when switching email accounts.
- **Severity:** High
- **Priority:** High
- **Steps to Reproduce:**
    1. Sign in with mihirima.013@gmail.com.
    2. Manually navigate to **https://echogpt.live/login.**
    3. Sign in with another email account sumaiyameem.cse6.bu@gmail.com and enter the correct OTP
    4. After redirect, use the browser back button to navigate.

- **Expected Result:** The Previous session (mihi@gmail.com) should be terminated. Only meem@gmail.com should remain logged in.
- **Actual Result:** Previous session (`mihi@gmail.com`) persists and can be accessed via the browser back button. Both sessions appear active.
- **Environment/Browser Information:**
    - OS: Windows 10
    - Browser: Chrome v139
    - URL: **https://echogpt.live**

- **Screenshots/Videos:**

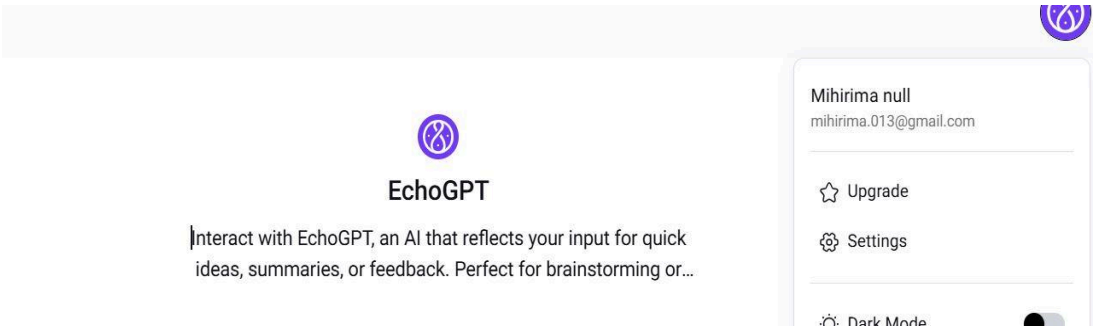

Figure: Image1

Figure: Image2

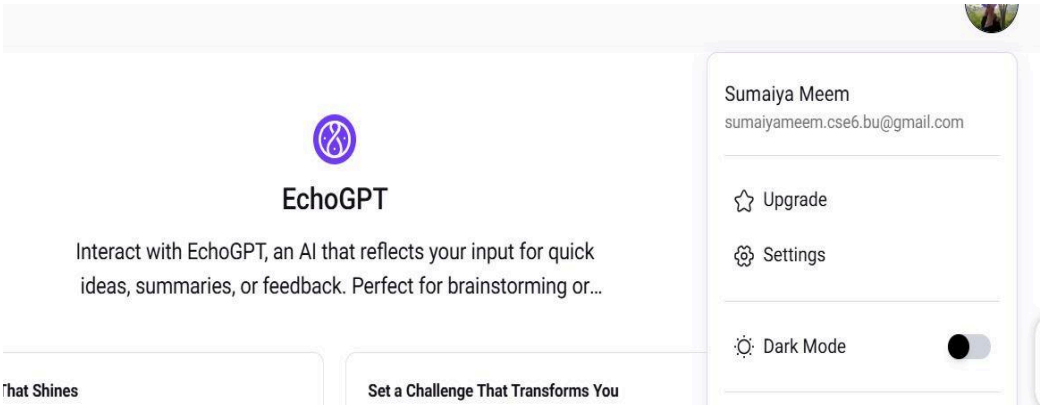

Figure: Image3

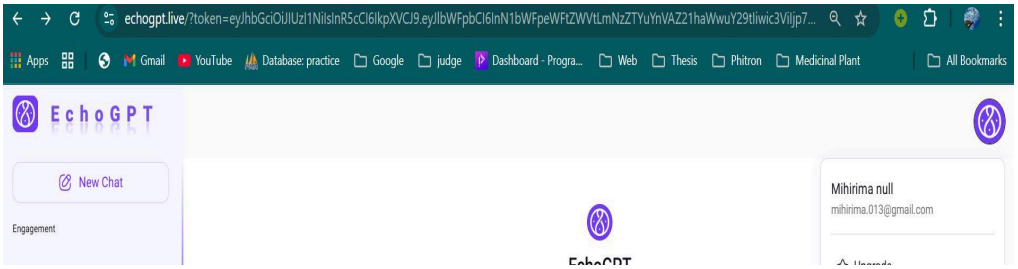

Figure: Image4

- **Workarounds:** User must clear browser cookies or log out before switching accounts.

Bug Report 2

- **Bug ID:** ECHO-AUTH-002
- **Title:** Session persists when switching Google accounts.
- **Severity :** High
- **Priority:** High
- **Steps to Reproduce:**
    1. Sign in with Google account mihirima.013@gmail.com redirected to homepage.
    2. Manually edit the URL to **https://echogpt.live/login,** login page appears.
    3. Sign in with another Google account sumaiyameem.cse6.bu@gmail.com

- **Expected Result:** Previous session (mihirima.013@gmail.com) should be logged out, and only sumaiyameem.cse6.bu@gmail.com should be active.
- **Actual Result:** Homepage shows the first account (mihirima.013@gmail.com), the session for sumaiyameem.cse6.bu@gmail.com is not properly reflected.
- **Environment/Browser Information:**
    - OS: Windows 10
    - Browser: Chrome v139
    - URL: **https://echogpt.live**

- **Screenshots/Videos:**

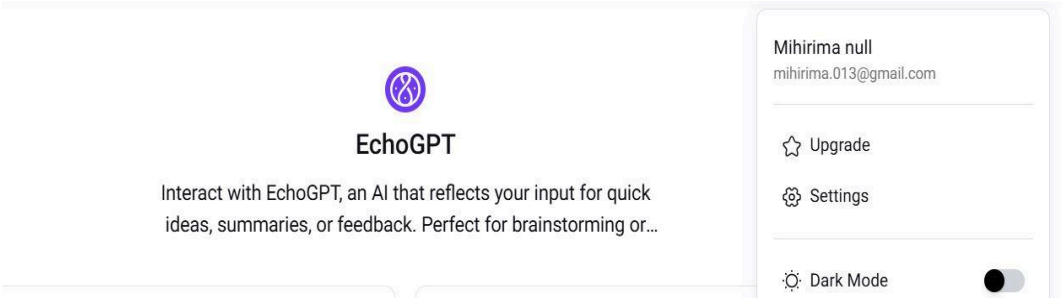

Figure: Image1

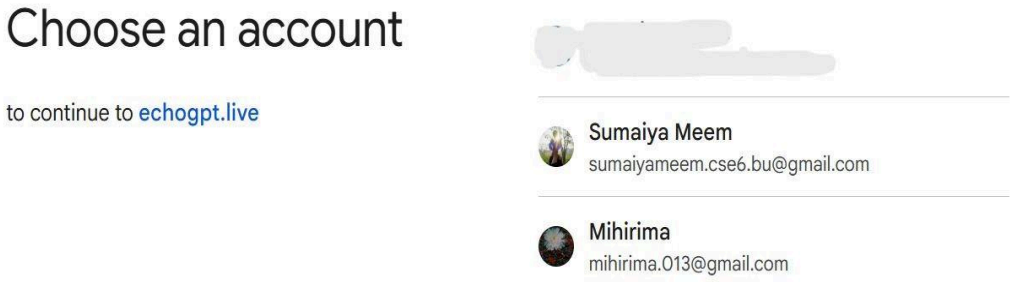

Figure: Image2

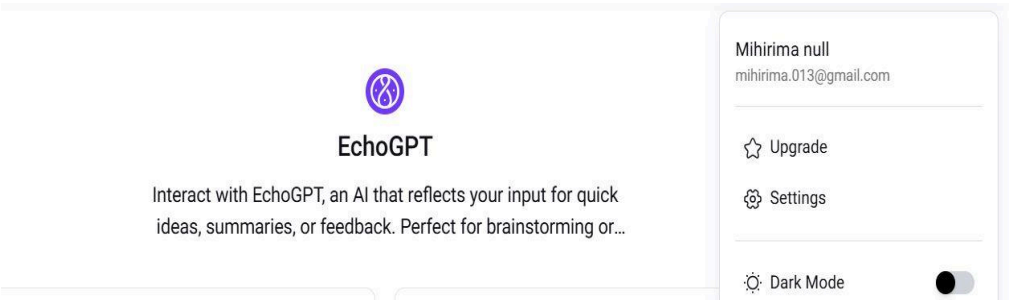

Figure: Image3

- **Workarounds:** Manually log out before signing in with another account.

Bug Report 3

- **Bug ID:** ECHO-AUTH-003
- **Title:** An authenticated user can access the login page by typing the login URL; the system does not redirect or warn.
- **Severity:** High
- **Priority:** High
- **Steps to Reproduce:**
    1. Sign in to any account mihirima.013@gmail.com redirected to the homepage.
    2. Manually type **https://echogpt.live/login** in the browser address bar and press Enter.
    3. Observe the page displayed.

- **Expected Result:** System should detect active session. User should be redirected to the homepage automatically, or a message should prompt: "You are already logged in. Please log out first to access the login page."
- **Actual Result: The** Login page is displayed even though the user is already logged in. No warning or redirect occurs; the session remains active.
- **Environment/Browser Information:**
    - OS: Windows 10
    - Browser: Chrome v139
    - URL: **https://echogpt.live**

- **Screenshots/Videos:**

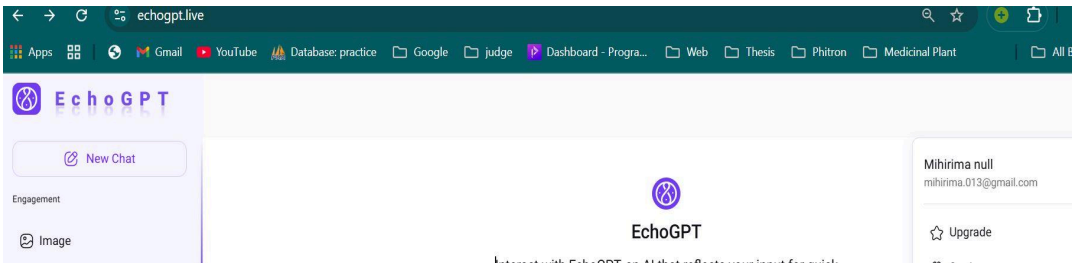

Figure: Image1

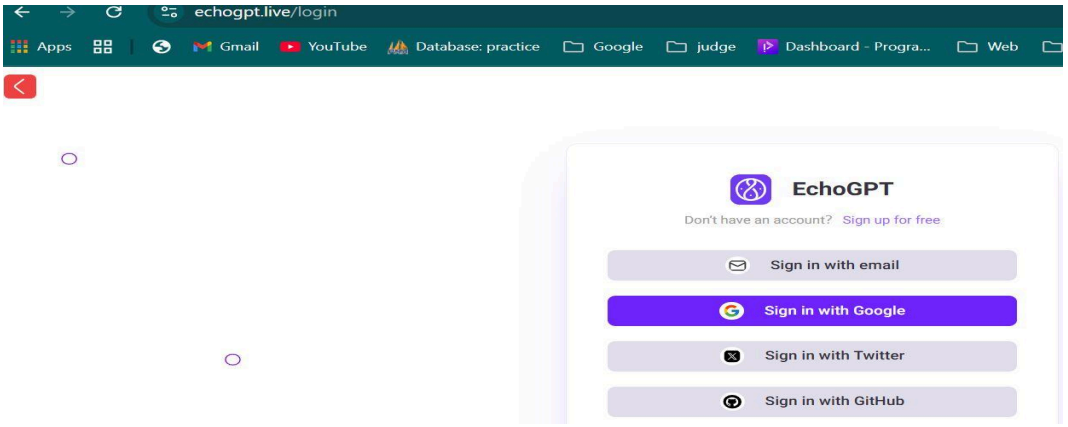

Figure: Image2

- **Workarounds:** User must manually navigate to the homepage or log out before accessing the login page.

3.3 Test Execution Report

3.3.1 Test Metrics & Statistics

Metric	Count	Percentage
Total Test Cases Planned	31	100%
Total Test Cases Executed	30	96.8%
Test Cases Not Executed	1	3.2%
Test Cases Passed	28	90.3%
Test Cases Failed	2	6.5%

3.3.2 Execution Status:

- Passed: 28
- Failed: 2
- Not Executed: 1

3.3.2 Defect Analysis

A total of 3 defects were identified, all with High & Medium severity.

Defects Categorized by Severity

Severity	Test Case ID	Title
High	TC-NF-001	Session persistence after manual URL navigation
High	TC-NF-002	Session switching without logout
Low	TC-NF-011	Accessibility - Color contrast

3.3.3 Overall Quality Assessment

The application's core functionality is strong, with all primary sign-up and OTP verification features working correctly. However, quality is severely compromised by a critical security flaw in session management and a failure in accessibility compliance.

3.3.4 Recommendations for Improvement

1. **Immediate Security Fix:** Halt the release and fix the session management. The system must force a logout of previous sessions before starting new logins.
2. **Quick UI Fix:** Adjust the color contrast on the dark mode buttons to meet accessibility standards (WCAG).
3. **Performance Test:** Complete the load test (TC-NF-006) before final release to ensure stability under pressure.
4. **Improve User Feedback**: Ensure proper error messages are displayed consistently to guide users through failures.