

BLACK BOX TESTING

Project Name: AskAtEase - Online Forum

Testing Type: Black Box Testing

Testing Purpose: To verify the website's functionality aligns with requirements and provides a seamless user experience.

1. Introduction

Objective

The goal of black-box testing is to assess the website's functionality and usability from the perspective of an end user, focusing solely on its external behavior rather than its internal code structure.

Scope

This testing focuses on major functionalities, including:

- User authentication
- Posting Questions
- Profile viewing
- Answering Questions
- Creating Spaces

Assumptions

1. Users have access to a stable internet connection.
2. Users will interact primarily through standard web browsers (e.g., Chrome, Firefox).

Areas to be tested

- 1) Sign-up
- 2) Login
- 3) Create Space
- 4) Add Question
- 5) Ask Gemini AI
- 6) Search question
- 7) Edit profile
- 8) Change Password

2. Sign-up

Equivalence class partitioning :

Email

- E1 Email not registered. (Valid)
- E2 Email already registered. (Invalid)
- E3 Empty field. (Invalid)

Password

- E4 Password follows the required format - At least 8 characters, 1 lowercase, 1 uppercase, 1 digit, 1 special symbol. (Valid)
- E5 Password doesn't follow the required format. (Invalid)
- E6 Empty field. (Invalid)

Confirm Password

- E7 It matches the password. (Valid)
- E8 It does not match the password. (Invalid)
- E9 Empty field. (Invalid)

| Email | Password | Confirm Password | Expected Outcome | Reason | Classes Covered |
|-------------------|--------------|------------------|------------------|-----------------------------------|-----------------|
| khushi5@gmail.com | Password@123 | Password@123 | Valid | All fields are correctly entered. | E1, E4, E7 |
| khushi5@gmail.com | Pass!1234 | Pass!1234 | Invalid | Email is already used. | E2 |

| | | | | | |
|---------------------|--------------|--------------|---------|--|----|
| | Pass@1234 | Pass@123 | Invalid | Empty email | E3 |
| khushi123@gmail.com | Password | Password | Invalid | Password does not match the required format. | E5 |
| khushi123@gmail.com | | Password@123 | Invalid | Empty Password | E6 |
| khushi123@gmail.com | Password@123 | Password | Invalid | Confirm password does not match password. | E7 |
| khushi123@gmail.com | Password@123 | | Invalid | Empty confirm password field. | E8 |

3. Login

Equivalence class partitioning :

Email

- E1 Email already registered. (Valid)
- E2 Email not registered/incorrect. (Invalid)
- E3 Empty field. (Invalid)

Password

- E4 Matches the original password. (Valid)
- E5 It does not match the original password. (Invalid)
- E6 Empty field. (Invalid)

Boundary Value Analysis:

| Email | Password | Expected Output | Result | Classes Covered |
|-------------------|--------------|-----------------|------------------------|-----------------|
| khushi5@gmail.com | Password@123 | Valid | All fields are correct | E1, E4 |

| | | | | |
|--------------------|--------------|---------|-----------------------|----|
| | Password@123 | Invalid | Email is empty | E3 |
| khushi5@gmail.com | | Invalid | Password is empty | E6 |
| khushi15@gmail.com | Password@123 | Invalid | Email is incorrect | E2 |
| khushi5@gmail.com | Pass@123 | Invalid | Password is incorrect | E5 |

4. Create Space

Equivalence class partitioning :

Space Name

- E1 Space name is provided. (Valid)
- E2 Space name is not provided. (Invalid)

Space Description

- E3 Space Description is provided. (Valid)
- E4 Space Description is not provided. (Invalid)

Boundary Value Analysis:

| Space Name | Space Description | Expected Output | Reason | Classes Covered |
|------------|--------------------------|-----------------|---------------------------|-----------------|
| Cricket | For Cricket Enthusiasts | Valid | Both fields provided. | E1,E3 |
| Cricket | | Invalid | Description not provided. | E4 |
| | For Cricket Enthusiasts! | Invalid | Name not provided. | E2 |

5. Add Question

Equivalence class partitioning :

Question

- E1 Question is provided. (Valid)
- E2 Question is not provided. (Invalid)

Space

- E3 Question is added to space. (Valid)
- E4 Question is not added to any space. (Invalid)

Boundary Value Analysis:

| Question | Space | Expected Output | Reason | Classes Covered |
|------------------|---------|-----------------|--------------------------|-----------------|
| What is Testing? | Testing | Valid | All fields are provided. | E1, E3 |
| What is Testing? | | Invalid | Space not provided. | E4 |
| | Cricket | Invalid | Question not provided. | E2 |

6. Ask Gemini AI

Equivalence class partitioning :

Question

- E1 Question is provided. (Valid)
- E2 Question is not provided. (Invalid)

Boundary Value Analysis:

| Question | Expected Output | Reason | Classes Covered |
|------------------|-----------------|--------------------|-----------------|
| What is testing? | Valid | Question provided. | E1 |

| Question | Expected Output | Reason | Classes Covered |
|----------|-----------------|------------------------|-----------------|
| | Invalid | Question not provided. | E2 |

7. Search Question

Equivalence class partitioning :

Question

- E1 Question is provided. (Valid)
- E2 Question is not provided. (Invalid)

Boundary Value Analysis:

| Question | Expected Output | Reason | Classes Covered |
|------------------|-----------------|------------------------|-----------------|
| What is testing? | Valid | Question provided. | E1 |
| | Invalid | Question not provided. | E2 |

8. Edit Profile

Equivalence class partitioning :

Bio

- E1 Bio is provided. (Valid)
- E2 Bio is not provided. (Invalid)

Boundary Value Analysis:

| Bio | Expected Output | Reason | Classes Covered |
|-----------------|-----------------|---------------|-----------------|
| Tech Enthusiast | Valid | Bio provided. | E1 |

| Bio | Expected Output | Reason | Classes Covered |
|-----|-----------------|-------------------|-----------------|
| | Invalid | Bio not provided. | E2 |

9. Change Password

Equivalence class partitioning :

Current Password

- E1 Current Password entered is correct. (Valid)
- E2 Password entered is incorrect. (Invalid)
- E3 Empty field. (Invalid)

New Password

- E4 Password follows the required format - At least 8 characters, 1 lowercase, 1 uppercase, 1 digit, 1 special symbol. (Valid)
- E5 Password doesn't follow the required format. (Invalid)
- E6 Empty field. (Invalid)

Confirm New Password

- E7 It matches the password. (Valid)
- E8 It does not match the password. (Invalid)
- E9 Empty field. (Invalid)

Boundary Value Analysis:

| Current Password | New Password | Confirm New Password | Expected Outcome | Reason | Classes Covered |
|------------------|--------------|----------------------|------------------|---|-----------------|
| Pass!1234 | Password@123 | Password@123 | Valid | All fields are correctly entered. | E1, E4, E7 |
| Pass | Pass!1234 | Pass!1234 | Invalid | Current password is incorrect. | E2 |
| | Pass@1234 | Pass@123 | Invalid | Empty current password. | E3 |
| Password@123 | Password | Password | Invalid | New Password does not match the required format. | E5 |
| Password@123 | | Password@123 | Invalid | Empty New Password | E6 |
| Password@123 | Password@123 | Password | Invalid | Confirm new password does not match the new password. | E7 |
| Password@123 | Password@123 | | Invalid | Empty confirm new password field. | E8 |