

Black Box Testing

‘Xpense Tracker’

Group-26

Registration

The validity checks for the registration form :

[Validity check Number: Description]

VC1: All details can not be blank.

VC2: First name & last name must be at least 4 characters.

VC3: First name & last name must be at least 24 characters.

VC4: First name & last name must start with a letter and contain only letters, numbers, underscores, and hyphens

VC5: Email should be in valid format.

VC6: Contact no must be of 10 digits.

VC7: Contact no should be in numeric format

VC8: Password must be at least 8 characters.

VC9: Password must not exceed 24 characters.

VC10: Password must include uppercase and lowercase letters, a number, and a special character.

VC11: Confirm password must match password.

| Test Case ID | Validity Check No | First Name | Last Name | Email Address | Birth Date | Contact No | Password | Confirm Password | Expected Output | Remarks |
|--------------|-------------------|------------|-----------|--------------------|------------|------------|------------|------------------|-----------------|-------------------------------|
| TC1 | VC1 | | | | | | | | Error | All details are blanked |
| TC2 | VC2 | Jo | Smi | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Error | First name & last name < 4 |
| TC3 | VC3 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Error | First name & last name > 24 |
| TC4 | VC4 | 1John- | Sm1th- | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Error | First name & last name format |

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|-----|-----|------|-------|--------------------|------------|------------|-----------------------------|-----------------------------|-------|--------------------------|
| TC5 | VC5 | John | Smith | Abcd.gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Error | Invalid email format |
| TC6 | VC6 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 12345678 | Password@1 | Password@1 | Error | Contact no < 10 digits |
| TC7 | VC7 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234abcd | Password@1 | Password@1 | Error | Contact no not numeric |
| TC8 | VC8 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Pass1 | Pass1 | Error | Password < 8 characters |
| TC9 | VC9 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | VeryLongPassword@1234567890 | VeryLongPassword@1234567890 | Error | Password > 24 characters |

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|------|------|------|-------|--------------------|------------|------------|------------|------------|---------|-----------------------------|
| TC10 | VC10 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Passw0rd | Passw0rd | Error | Password missing criteria |
| TC11 | VC11 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@2 | Error | Confirm password mismatch |
| TC12 | VC1 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Success | All details valid |
| TC13 | VC1 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Success | All details valid |
| TC14 | VC2 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Success | First name & last name >= 4 |

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|------|------|------|-------|--------------------|------------|------------|------------|------------|---------|------------------------|
| TC15 | VC5 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Success | Valid email format |
| TC16 | VC6 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password@1 | Password@1 | Success | Contact no 10 digits |
| TC17 | VC10 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Passw0rd#1 | Passw0rd#1 | Success | Password criteria met |
| TC18 | VC11 | John | Smith | Abcd1234@gmail.com | 1990-01-15 | 1234567890 | Password#1 | Password#1 | Success | Confirm password match |

Login

The validity checks for Login .

Validity check Number: Description

VC1: All details are can not be blanked

VC2: Email should be in valid format.

VC3: Email should be registered.

VC4: Password should be valid.

VC5: Selected role must match registered role.

| Test Case ID | Validity Check No | Email Address | Password | Role | Expected Output | Remarks |
|--------------|-------------------|--------------------|------------|----------|-----------------|--------------------------|
| TC1 | VC1 | | | | Error | All details are blanked |
| TC2 | VC2 | Abcd1234@gmail.com | Password@1 | Employee | Success | Valid email and password |
| TC3 | VC2 | Abcd.gmail.com | Password@1 | Employee | Error | Invalid email format |
| TC4 | VC3 | cd1234@gmail.com | Password@5 | Employee | Error | Email not registered |

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|------|-----|--------------------|--------------|----------|---------|---------------------------------|
| TC5 | VC4 | Abcd1234@gmail.com | Password@5 | Employee | Error | Invalid password |
| TC6 | VC2 | Abcd1234@gmail.com | | Employee | Error | Blank password |
| TC7 | VC2 | | Password@1 | Employee | Error | Blank email |
| TC8 | VC5 | Abcd1234@gmail.com | Password@1 | Manager | Error | Role mismatch |
| TC9 | VC2 | Xyz123@gmail.com | Password#123 | Manager | Success | Valid email, password, and role |
| TC10 | VC5 | Abcd1234@gmail.com | Password@1 | Employee | Success | Valid email, password, and role |

Add expense form

The validity checks for Add expense form.

Validity check Number: Description

VC1: All details can not be blanked except description.

VC2: Expense name must not exceed 30 characters.

VC3: Expense description must not exceed 400 characters.

| Test Case ID | Validity Check No | Expense Name | Date | Category | Amount | Link of Uploaded Bill | Description | Expected Output | Remarks |
|--------------|-------------------|--------------|------------|----------|--------|---|------------------------|-----------------|--------------------|
| TC1 | VC1 | | 2023-01-15 | Food | 25.00 | https://drive.google.com/drive/my-drive | This is a test expense | Error | Blank expense name |
| TC2 | VC1 | Dinner | | Food | 25.00 | https://drive.google.com/drive/my-drive | This is a test expense | Error | Blank date |
| TC3 | VC1 | Dinner | 2023-01-15 | | 25.00 | https://drive.google.com/drive/my-drive | This is a test expense | Error | Blank category |

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|-----|-----|------------------------------|------------|------|-------|---|---|-------|------------------------------|
| TC4 | VC1 | Dinner | 2023-01-15 | Food | | https://drive.google.com/drive/my-drive | This is a test expense | Error | Blank amount |
| TC5 | VC1 | Dinner | 2023-01-15 | Food | 25.00 | | This is a test expense | Error | Blank bill link |
| TC6 | VC2 | Dinner with a very long name | 2023-01-15 | Food | 25.00 | https://drive.google.com/drive/my-drive | This is a test expense | Error | Expense name > 30 characters |
| TC7 | VC3 | Dinner | 2023-01-15 | Food | 25.00 | https://drive.google.com/drive/my-drive | This is a test expense with a very long description | Error | Description > 400 characters |

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|-----|-----|--------|------------|------|-------|--|--|---------|-------------------|
| TC8 | VC1 | Dinner | 2023-01-15 | Food | 25.00 | https:// drive.google.com/drive/my-drive | | Success | All details valid |
|-----|-----|--------|------------|------|-------|--|--|---------|-------------------|

- If status is Pending then employees can edit expenses or delete expenses.
 - For editing the expense, the employee can just press the Edit icon which is shown in the 'Project Expense' section and then the employee will be redirected to a page which has a form exactly like 'Add Expense' form.
 - For deleting the expense, the employee can just press the Delete icon which is shown in the 'Project Expense' section and then that expense will be deleted.
- If expense status is approved then employees can not edit or delete that expense.

Create Project form

The validity checks for Create Project form.

Validity check Number: Description

VC1: All details can not be blanked except description.

VC2: Project name must not exceed 30 characters.

VC3: Project description must not exceed 400 characters.

VC4: Alert limit must be between 0 and 100.

| Test Case ID | Validity Check No | Project Name | Budget Amount | Alert Limit (%) | Project Description (optional) | Expected Output | Remarks |
|--------------|-------------------|--------------|---------------|-----------------|--------------------------------|-----------------|-------------------------|
| TC1 | VC1 | | 10000.00 | 20 | This is a test project | Error | Blank project name |
| TC2 | VC1 | Project X | | 20 | This is a test project | Error | Blank budget amount |
| TC3 | VC1 | Project X | 10000.00 | | This is a test project | Error | Blank alert limit |
| TC4 | VC1 | Project X | 10000.00 | 200 | This is a test project | Error | Alert limit exceeds 100 |

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|-----|-----|---|----------|-----|---|---------|------------------------------|
| TC5 | VC2 | A Very Long Project Name That Exceeds 30 Characters | 10000.00 | 20 | This is a test project | Error | Project name > 30 characters |
| TC6 | VC3 | Project X | 10000.00 | 20 | This is a test project with a very long description | Error | Description > 400 characters |
| TC7 | VC4 | Project X | 10000.00 | -20 | This is a test project | Error | Alert limit < 0 |
| TC8 | VC1 | Project X | 10000.00 | 20 | | Success | All details valid |

Forgot Password

The validity checks for the Forgot Password :

[Validity check Number: Description]

VC1: User email must not be blanked and must be registered.

VC2: OTP must not be blanked and must be matched with the provided OTP sent on the email.

VC3: Password must be at least 8 characters.

VC4: Password must not exceed 24 characters.

VC5: Passwords must include uppercase and lowercase letters, a number, and a special character.

VC6: Confirm password must match password.

| Test Case ID | Validity Check No. | Email | OTP | Password | Confirm Password | Expected Output | Remarks |
|--------------|--------------------|-------------------|-----|----------|------------------|------------------------------------|---|
| TC_01 | VC1 | valid@example.com | | | | Error: OTP field cannot be blank | Checking if system detects blank OTP field |
| TC_02 | VC1 | | | | | Error: Email field cannot be blank | Checking if system detects blank Email field |
| TC_03 | VC1 | invalidemail | | | | Error: Invalid email format | Checking if system detects invalid email format |

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|-------|-----|------------------------|----------|-------------------------------|------------------------------|----------------------------------|--|
| TC_04 | VC1 | unregistered@email.com | | | | Error: Email not registered | Checking if system identifies unregistered email |
| TC_05 | VC2 | valid@example.com | 12345678 | | | Error: Invalid OTP | Checking if system detects incorrect OTP |
| TC_06 | VC2 | valid@example.com | | password123 | password123 | Error: OTP field cannot be blank | Checking if system detects blank OTP field |
| TC_07 | VC3 | valid@example.com | 123chi45 | pass | pass | Error: Password too short | Checking if system detects short passwords |
| TC_08 | VC4 | valid@example.com | 12345uuj | thisIsAVeryLong Password12345 | thisIsAVeryLongPassword12345 | Error: Password too long | Checking if system detects long passwords |
| TC_09 | VC5 | valid@example.com | 45yui9o6 | Password!1 | Password!1 | Success: Password updated | Checking if system accepts a valid password |

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|-------|-----|-------------------|--------------|------------|-----------------|---|--|
| TC_10 | VC5 | valid@example.com | 1234567 8 | password | password | Error: Password weak | Checking if system detects weak password |
| TC_11 | VC6 | valid@example.com | 1234568 7 | Password!1 | DifferentPass!1 | Error: Password s do not match | Checking if system detects mismatched passwords |

Edit Profile

The validity checks for the Edit Profile :

[Validity check Number: Description]

VC1: All details can not be blank.

VC2: First name & last name must be at least 4 characters.

VC3: First name & last name must be at least 24 characters.

VC4: First name & last name must start with a letter and contain only letters, numbers, underscores, and hyphens

VC5: Date of birth should be at-least 18 years before present date.

VC6: Contact no must be of 10 digits.

VC7: Contact no should be in numeric format

| Test Case Id | Validity Check No. | First Name | Last Name | Date of Birth | Contact Number | Expected Output | Remarks |
|--------------|--------------------|------------|-----------|---------------|----------------|--|--|
| 1 | VC1 | . | . | 1990-05-15 | 1234567890 | Error: All details cannot be blank. | Testing blank fields. |
| 2 | VC2 | Jo | Doe | 1985-12-30 | 1234567890 | Error: First name & last name must be at least 4 characters. | Testing minimum character limit for names. |
| 3 | VC3 | Jonathan | D | 1999-08-20 | 1234567890 | Error: First name & last name must be at least 4 characters. | Testing maximum character limit for last name. |

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|---|-----|--------|---------|------------|--------------|---|---|
| 4 | VC4 | John\$ | Doe& | 1980-02-10 | 1234567890 | Error: First name & last name must start with a letter and contain only letters, numbers, underscores, and hyphens. | Testing invalid characters in names. |
| 5 | VC5 | Jane | Doe | 2023-01-05 | 1234567890 | Error: Date of birth should be at least 18 years before present date. | Testing underage users. |
| 6 | VC6 | Alice | Smith | 1988-09-25 | 12345678 | Error: Contact no must be of 10 digits. | Testing insufficient digits in contact number. |
| 7 | VC7 | Bob | Johnson | 1975-06-12 | abcdefghijkl | Error: Contact no should be in numeric format. | Testing non-numeric characters in contact number. |
| 8 | - | Emily | Parker | 1987-04-03 | 9876543210 | Success: Profile updated successfully. | Testing valid data for all fields. |

Edit Project

The validity checks for the Edit Project form.

Validity check Number: Description

VC1: All details can not be blanked except description.

VC2: Project name must not exceed 30 characters.

VC3: Project description must not exceed 400 characters.

VC4: Alert limit must be between 0 and 100.

| Test Case Id | Validity Check No. | Project Name | Budget | Alert Limit | Description | Expected Output | Remarks |
|--------------|--------------------|---|----------|-------------|--|--|---|
| 1 | VC1 | . | 5000.00 | 50 | This is a test project. | Error: All details cannot be blank except description. | Testing blank fields. |
| 2 | VC2 | VeryLongProjectNameThatExceedsTheCharacterLimit | 10000.05 | 30 | Testing project with a name exceeding 30 characters. | Error: Project name must not exceed 30 characters. | Testing maximum character limit for project name. |

| | | | | | | | |
|---|-----|-------------|---------|-----|--|--|--|
| 3 | VC3 | ProjectABC | 7500.50 | 80 | Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla vitae nibh risus. | Error: Project description must not exceed 400 characters. | Testing maximum character limit for project description. |
| 4 | VC4 | ProjectXYZ | 6000.00 | -10 | Testing a negative alert limit. | Error: Alert limit must be between 0 and 100. | Testing invalid alert limit. |
| 5 | VC1 | TestProject | 8500.00 | 150 | Description for the test project. | Error: Alert limit must be between 0 and 100. | Testing invalid alert limit. |
| 6 | - | NewProject | 9000 | 50 | Testing the new project creation with valid data. | Success: Project updated successfully. | Testing valid data for all fields. |

Invite Employees

- A manager can invite only registered employees with an email address.

Error Pages

- 401 :- Unauthorized :- When someone tries to access content accessible only to registered users without login credentials.
- 403 :- Forbidden :- When Employee tries to access pages that only the manager can access and vice-versa then this error will be displayed.
- 404 :- Not found :- When someone tries to access a page that does not exist.

Notifications

- Users can view their notifications by clicking on the bell icon shown in the navigation bar.
 - Employees receive notifications for Project Invites sent by their manager.
 - Managers receive notifications when an employee accepts an invitation.
 - Managers receive notifications when an invitation is sent successfully.
 - Managers receive notifications when an employee adds an expense.
 - Managers receive notifications when an employee updates an expense.
 - Employees receive notifications when the manager approves/rejects an expense.
 - Every notification has a 'Mark as read' button. Once the user clicks it, that notification will be discarded from notifications.
 - Notifications related to expenses contain a button with the expense name that redirects to the 'Expense Details' page.
 - Notifications related to Projects contain a button with the name 'View Project' that redirects to the 'Project Dashboard' page.
 - Notifications related to Project Invite for employees contain a button with the name 'View Invitation' that redirects to the 'Invites' page.

Approve/Reject Expense

- Managers can view submitted expenses by clicking on a particular expense from 'Project Expenses' or notifications. This will lead to a page with all the expense details.
- Manager can view the submitted bills by clicking on the 'View Bill' button. This will open the provided links to the bills in a new tab.
- Manager can then approve/reject the expense by clicking on the 'Approve' / 'Reject' button.

Announcements

- Users can make and see announcements in the 'Stream' section of the 'Project Home'.
- To make an announcement users can type in the text area provided and then click the submit button.
- The announcement will appear in the 'Announcements' section below the text area with the user's name and the time of announcement.