



Group – 28

System Testing — Settings and Notifications Page

Testers: Kirtan Chauhan and Ruchir Joshi.

BlackBox Testing — Settings Page

1. Appearance & Privacy

1.1 Field Constraints

Dark Mode

- Toggle ON/OFF should be allowed.
- Will switch the theme instantly.

Data Sharing

- Toggle ON/OFF allowed.
- If data sharing is off then you can't use the ai assistant feature because it will share your data.

Auto save is implemented.

1.2 ECP

EC	Dark Mode	Data Sharing	Expected Result
E1	ON	ON	Settings saved
E2	OFF	ON	Settings saved
E3	ON	OFF	Settings saved

1.3 BVA

Initial State	Action	Expected Result
Light Mode	Toggle to Dark	Theme switches
Dark Mode	Toggle to Light	Theme switches

2. Export Data (CSV files)

2.1 Field Constraints

- User can select date , either a single date or a range of date , where the order wouldn't matter
- Selection of future date (w.r.t to current date) is not allowed
- Export button enabled only when:

- at least 1 expense exists in selected range.
- Else Export button would be unclickable
- On export go to downloads CSV to local browser's downloads

2.2 Equivalent class Portioning

EC	Dates Selected	Transactions Found	Export Button	Expected Result
E1	None	–	Disabled	Cannot export
E2	Valid date or range	0	Disabled	Cannot export
E3	Valid date or range	>= 1	Enabled	CSV is downloaded

2.3 BVA

Date Selection	Transactions	Expected Output
No date	–	Export disabled
Single day (0 transactions)	0	Export disabled
Single day (>=1 transactions)	>=1	CSV fiule is downloaded
Range of date (>=1 transactions)	>=1	CSV file download

3. Delete Account

- Clicking **Delete Account** opens confirmation box.
- Cancel, backdrop, or X → closes box.
- “Yes, delete my account” closes box.

3.2 ECP

EC	Delete Clicked?	Confirm Choice	Expected Result
D1	Yes	Close(cross button)	box closes, nothing happens
D2	Yes	X	box closes
D3	Yes	Yes	Account gets deleted

3.3 BVA

User Action	Expected Output
Click Delete → Cancel	box closes
Click Delete → Close(cross button)	box closes
Click Delete → Confirm	Account deleted

Acceptance Testing — Settings Page

Test 1 — Dark Mode Toggle + Save

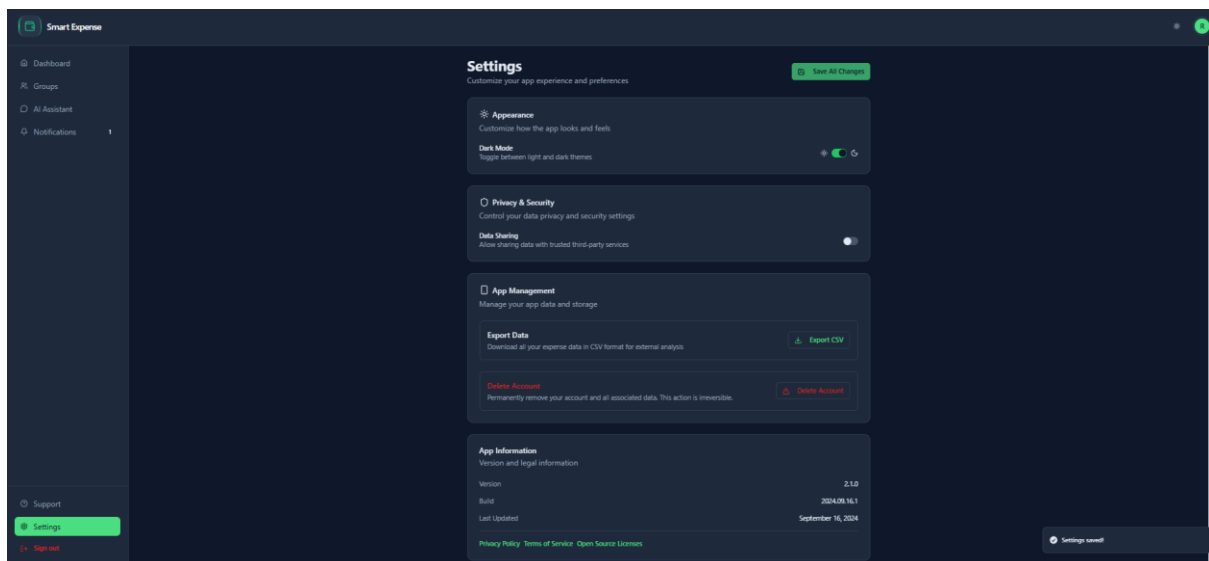
Initial State: Light mode

Action:

1. Go to Settings → Appearance.
2. Toggle Dark Mode switch to ON.

Expected Output:

- Theme switches to dark.



Test 2 — Data Sharing Toggle Will be auto-Save

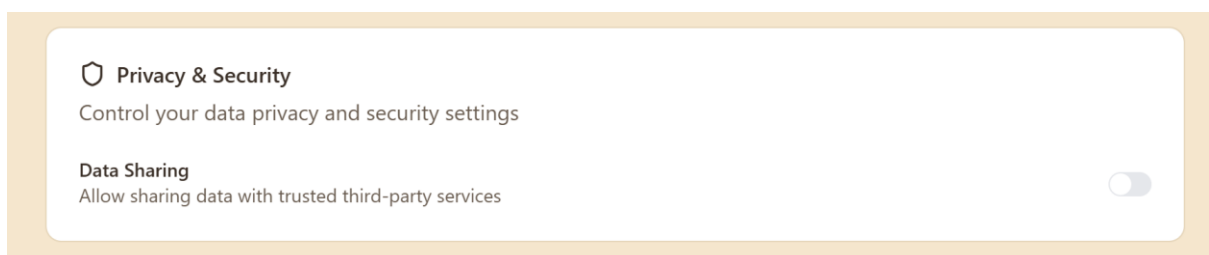
Initial State: Data Sharing OFF

Action:

1. Go to Settings → Privacy & Security.
2. Toggle Data Sharing to ON from OFF.
3. Navigate to another page (exg , Dashboard) and come back to Setting)

Output:

Data sharing will remain Off due to auto-save



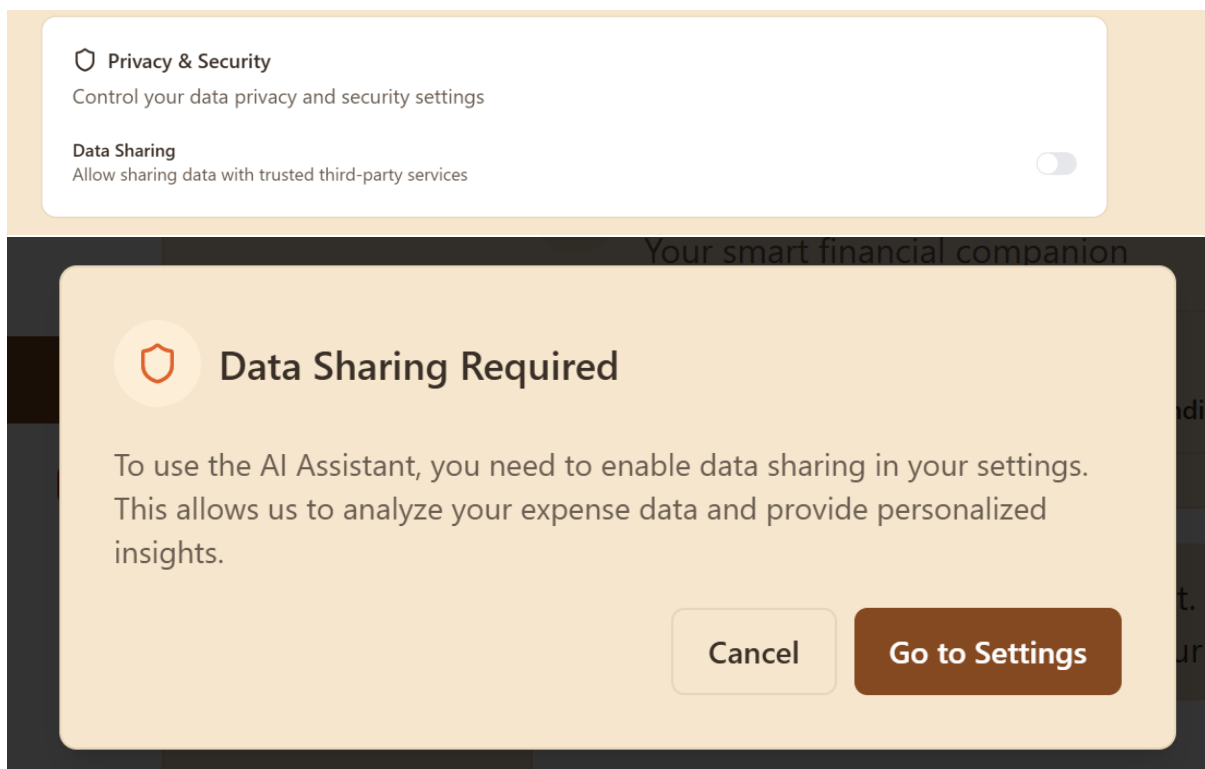
Test 2.1 — Data sharing functionality test

Initial State: Data Sharing OFF

Action:

4. Go to Settings → Privacy & Security.
5. Toggle Data Sharing to off state
6. Navigate to “AI-assistant” to check wheater Chatbot is able to “use data” as a thrid – part based service

Output:



Since the Data sharing was off , using the AI-chatbot is disabled .

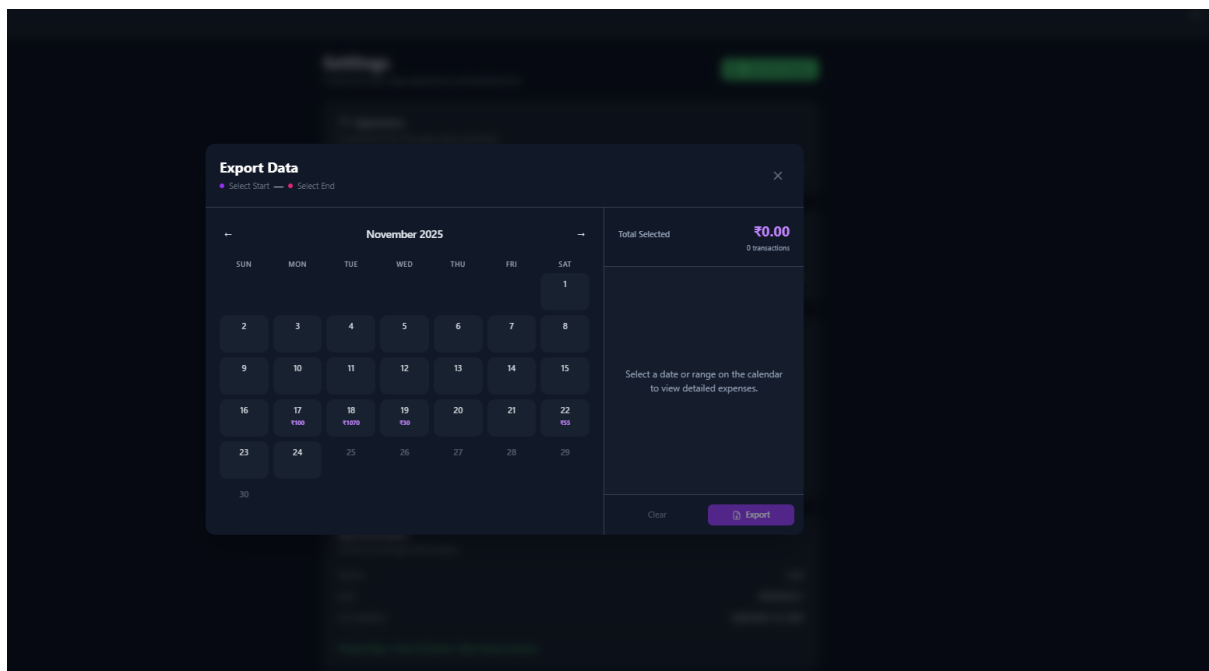
Test 3 — Export Data: No Date Selected

Action:

1. Go to Settings → App Management.
2. Click “Export CSV” to open the Export data page (contains calender)
3. Do not select any date on the calendar.

Expected Output:

- Export button will remain disabled.
- No file can be downloaded.



Test 4 — Export Data: Date With No Transactions

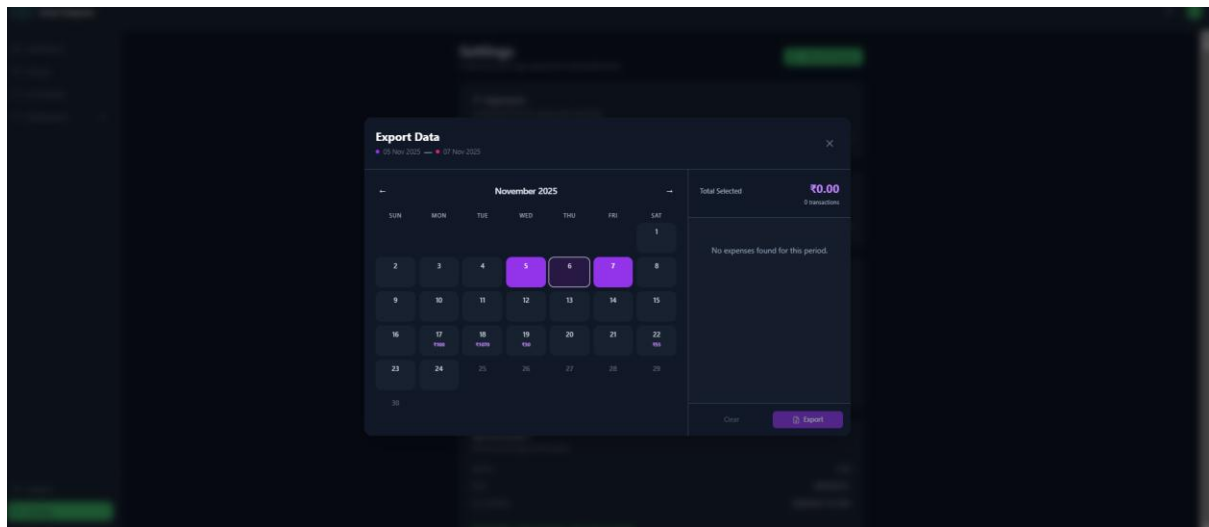
Precondition: Choose a day where your database has 0 expenses.

Action:

1. Open Export Data page .
2. Select that single date.

Expected Output:

- Right panel shows Total Selected: zero transactions
- Export button will remain disabled.
- No CSV file can be downloaded.



Test 5 — Export Data: Valid Date Range With Transactions

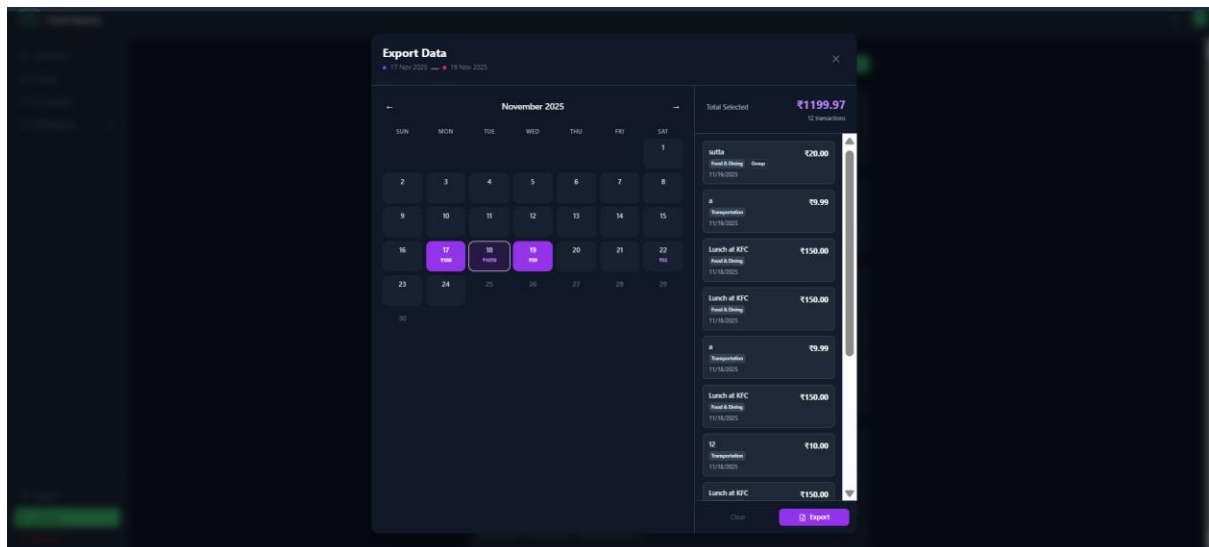
Precondition: There should be a range of dates that cover atleast more than one transactions

Action:

1. Click ontp the export button (Export data model opens up)
2. Select any date/dates that contains atleastone or more than one transactions of payments
3. Click Export.

Expected Output:

- Right panel shows Total Selected > ₹0 and N transactions.
- Export button is enabled.
- A CSV file will be downloaded.
- Opening the CSV it will show columns like: Date, Title, Category, Amount, Type and rows corresponding to the selected period.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Date	Title	Category	Amount	Type													
2	11/19/202	sutta	Food & Di	20	group													
3	11/19/202	a	Transport	9.99	personal													
4	11/18/202	Lunch at K	Food & Di	150	personal													
5	11/18/202	Lunch at K	Food & Di	150	personal													
6	11/18/202		Transport	9.99	personal													
7	11/18/202	Lunch at K	Food & Di	150	personal													
8	11/18/202	12	Transport	10	personal													
9	11/18/202	Lunch at K	Food & Di	150	personal													
10	11/18/202	Lunch at K	Food & Di	150	personal													
11	11/18/202	Lunch at K	Food & Di	150	personal													
12	11/18/202	Lunch at K	Food & Di	150	personal													
13	11/17/202	eating	Food & Di	99.99	personal													
14																		
15																		
16																		
17																		

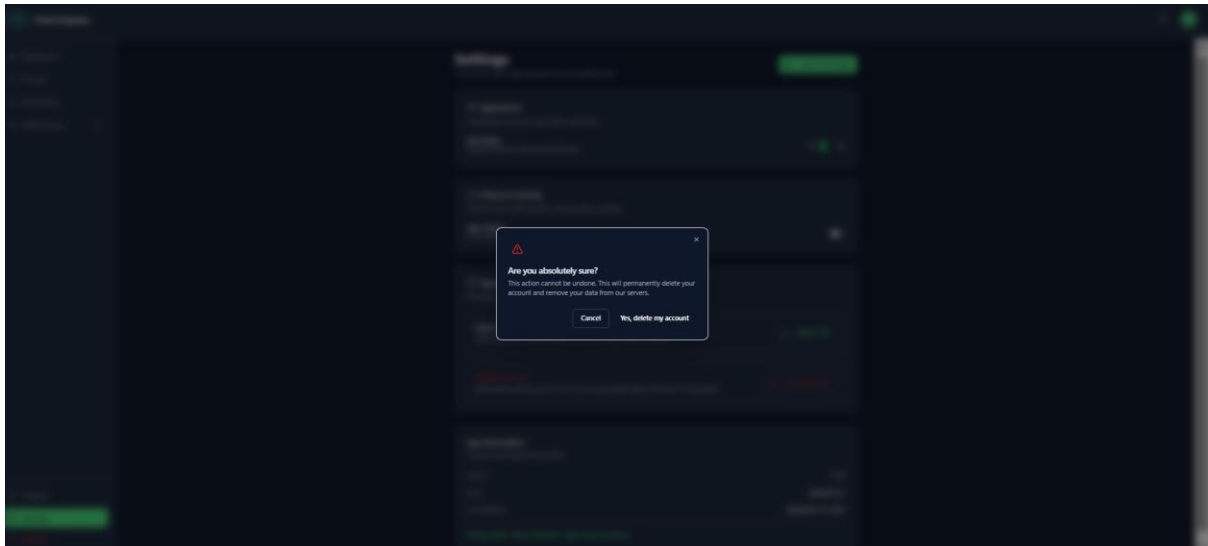
Test 6 — Delete Account Dialog: Cancel Path

Action:

1. Go to Settings → App Management.
2. Click on the “Delete Account” button.
3. In the confirmation popup box, click “Cancel”.

Expected Output:

- Confirmation dialog closes.
- User stays on Settings page.
- No navigation occurs.



BlackBox Testing — Notifications Page

1. Notification's page Constrains

1. Notification list

- Shows all notifications for the logged-in user.
- Each item shows: icon, title, message, time (e.g. "6 days ago"),
- Unread notifications have a highlighted background and a small dot.

2. Tabs

- **All** tab: shows every notification.
- **Unread** tab: shows only unread notifications.
- **Action Required** tab: shows only notifications that have action buttons (e.g. Accept / Decline)
- Counts beside each tab must match what is shown inside that tab.

3. Unread count & Mark All Read

- Total unread count is shown near the bell icon and shows a "x" number of unread messages

- **Mark All Read** button appears only when there is at least one unread notification.
- After clicking **Mark All Read**, all notifications become read and unread count becomes 0.

4. Per-notification buttons

- Mark as read (✓) appears only on unread notifications.
- Delete (X) appears on all notifications.
- Clicking Mark as read changes that notification to read and updates counts.
- Clicking Delete removes that notification from all tabs and updates counts.

2. Equivalence Class Partitioning (ECP)

EC Class	Read?	Needs Action? (buttons)	Active Tab	Expected Behaviour
E1	unread	no	All	Notification visible, highlighted, shows Mark as read and Delete .
E2	unread	no	Unread	Notification visible with unread styling.
E3	read	no	Unread	Notification not visible.
E4	unread	yes (e.g. group invitation, expense owed)	Action Required	Notification visible with the correct action buttons (Accept/Decline or Pay).
E5	read	yes	Action Required	Notification still visible with action buttons, but without unread highlight.
E6	any	no	Action Required	Notification not shown because it has no actions.
E7	any	any	All	All notifications always visible in All tab.

EC Class	Read?	Needs Action? (buttons)	Active Tab	Expected Behaviour
E8	unread	any	All / Unread	Clicking the card (or action button for Pay) marks it as read and updates unread count.

3. Boundary Value Analysis (BVA)

Scenario / State	User Action	Expected Output	Reason (Boundary)
0 notifications	Open Notifications page	"No notifications" card in All tab, unread count = 0, Mark All Read hidden.	Boundary: zero items.
1 unread notification	Open page	Unread count = 1; notification shown in All & Unread; Mark All Read visible.	Smallest non-zero unread.
Several unread notifications	Click Mark All Read	All become read; unread count = 0; Unread tab shows "All caught up!".	Boundary when unread goes from >0 to 0.
1 unread notification	Click Mark as read on that item	That item loses highlight; unread count decreases by 1; disappears from Unread tab.	Single-item change.
1 notification (read or unread)	Click Delete	Notification is removed; all tabs empty; counts become 0.	Deleting the last item.
1 group invitation (unread, action buttons visible)	Click Accept	Notification disappears from all tabs; unread and Action Required counts decrease.	Boundary for resolving an action.
1 expense_owed notification with group link	Click card or Pay ₹...	User is taken to that group's Balances page; notification becomes read (if it was unread).	Navigation behaviour.

Acceptance Testing — Notifications Page

Test 1 — Mark All Read

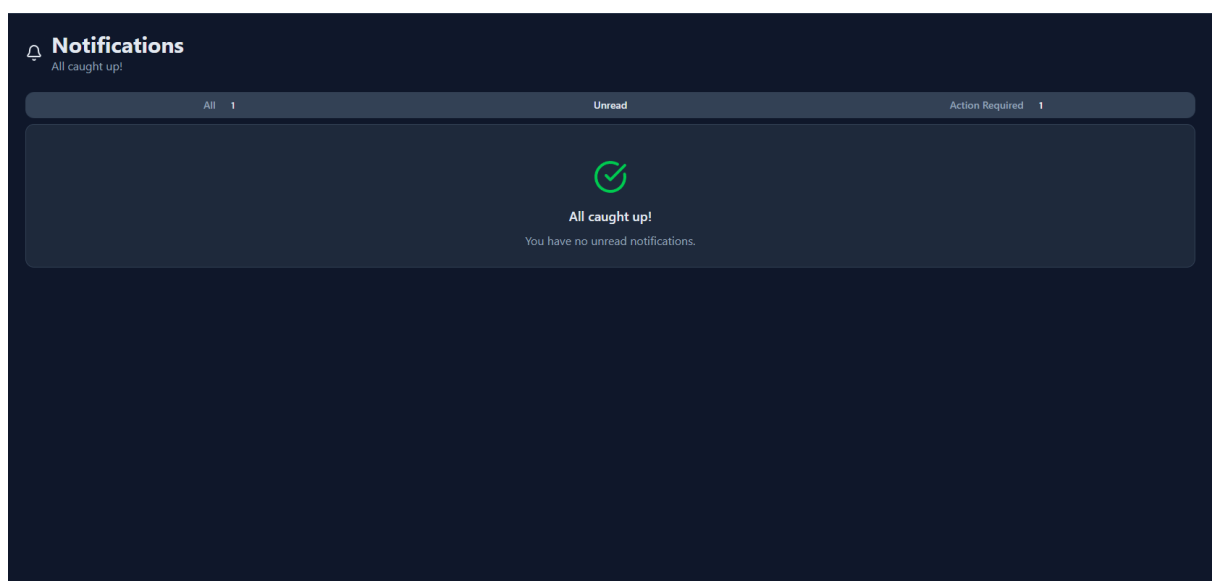
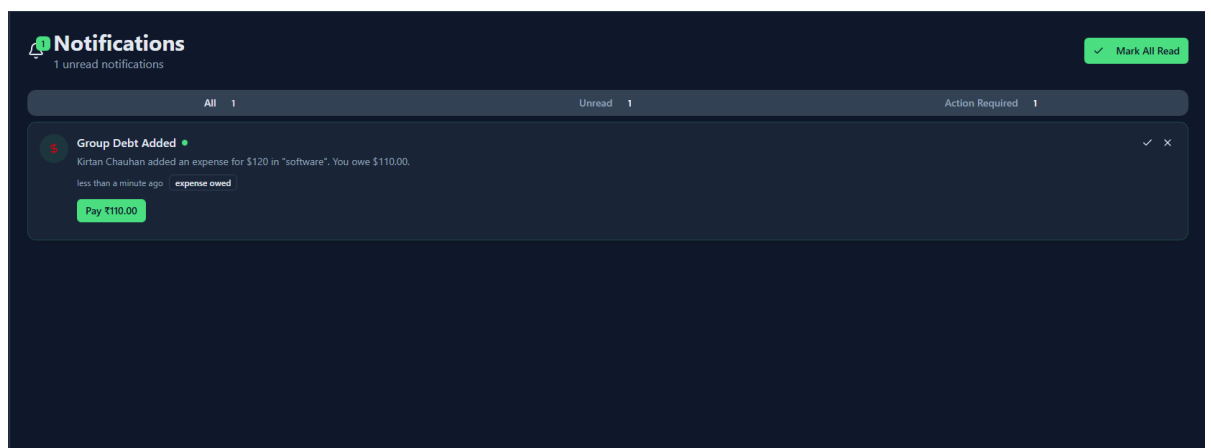
Precondition: At least 1 unread notifications exist.

Steps:

1. Open the Notifications page.
2. Check that the unread count is greater than 0.
3. Click “**Mark All Read**”.

Expected Result:

- All notifications lose the unread highlight.
- Unread count becomes 0.
- **Unread** tab shows the “All caught up!” message.



Test 2 — Mark Single Notification as Read

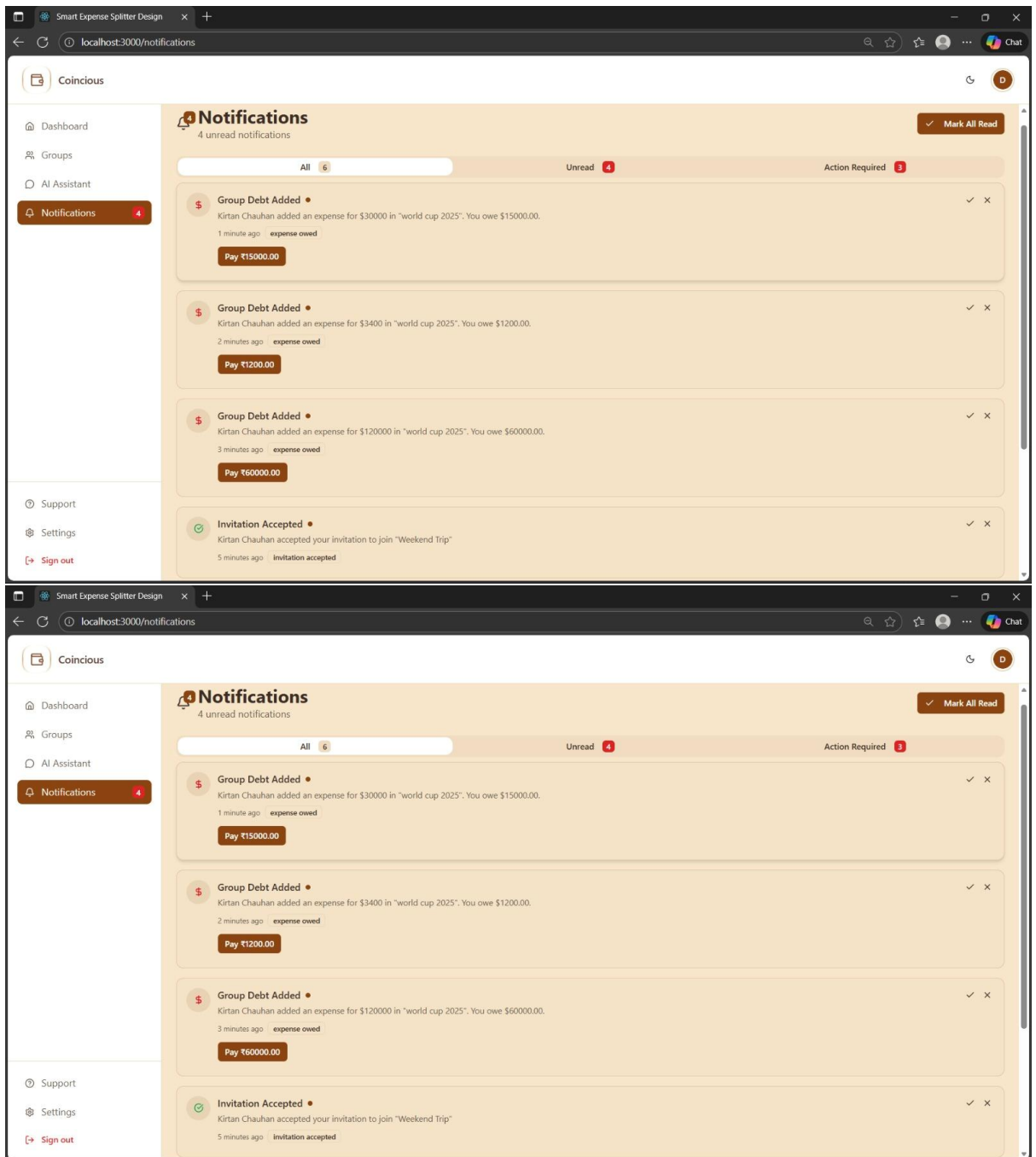
Precondition: At least 1 unread notification is visible in **All** tab.

Steps:

1. Open **All** tab.
2. On an unread notification, click the small tick button, which marks the message as read .

Expected Result:

- That notification now looks “read” (no highlight, no unread dot).
- Unread count decreases by 1.
- That notification no longer appears in **Unread** tab.



Test 3 — Delete a Notification

Precondition: At least 1 notification exists.

Steps:

1. Open **All** tab.
2. Click the **X (Delete)** button on any notification.
3. Switch to **Unread** and **Action Required** tabs.

Expected Result:

- The deleted notification is gone from all tabs.
- Counts (total and unread) are updated correctly.

5

Notifications

5 unread notifications

✓ Mark All Read

All5

Unread5

Action Required4

\$

Group Debt Added

Darshit Ramani added an expense for \$30 in "Weekend Trip". You owe \$15.00.

5 minutes agoexpense owed

Pay ₹15.00

\$

Group Debt Added

Darshit Ramani added an expense for \$1200 in "Weekend Trip". You owe \$850.00.

6 minutes agoexpense owed

Pay ₹850.00

4

Notifications

4 unread notifications

✓ Mark All Read

All4

Unread4

Action Required3

\$

Group Debt Added

Darshit Ramani added an expense for \$1200 in "Weekend Trip". You owe \$850.00.

6 minutes agoexpense owed

Pay ₹850.00

\$

Group Debt Added

Darshit Ramani added an expense for \$56 in "Weekend Trip". You owe \$28.00.

7 minutes agoexpense owed

Pay ₹28.00

4

Notifications

4 unread notifications

✓ Mark All Read

All4

Unread4

Action Required3

\$

Group Debt Added

Darshit Ramani added an expense for \$1200 in "Weekend Trip". You owe \$850.00.

Pay \$850.00

\$

Group Debt Added

Darshit Ramani added an expense for \$56 in "Weekend Trip". You owe \$28.00.

Pay \$28.00

Test 4 — Accept Group Invitation

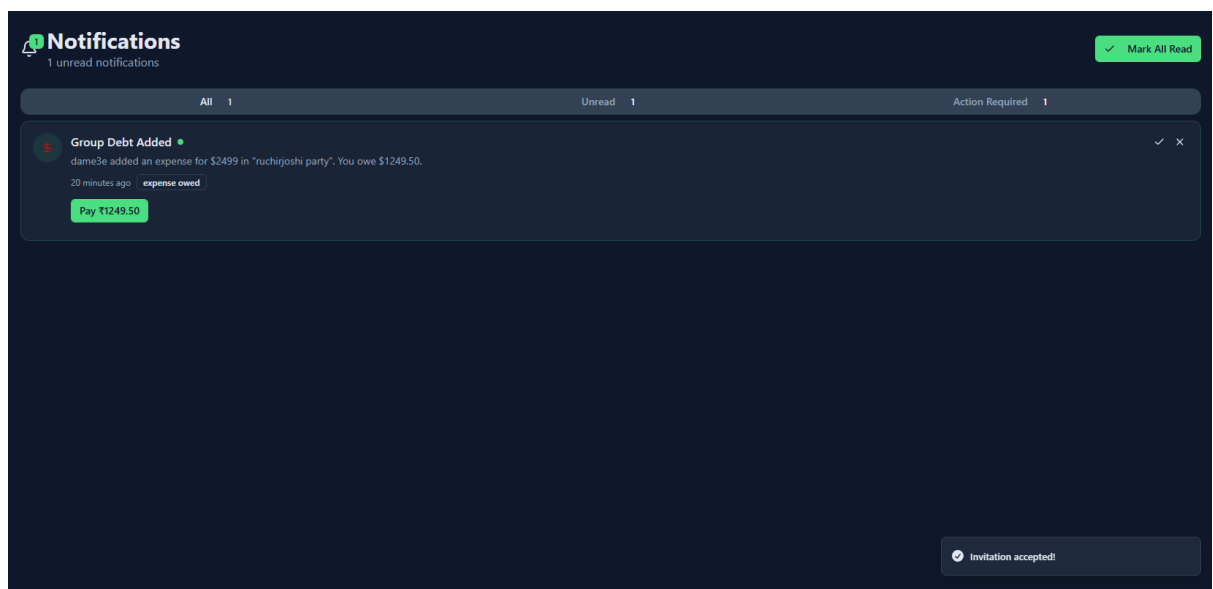
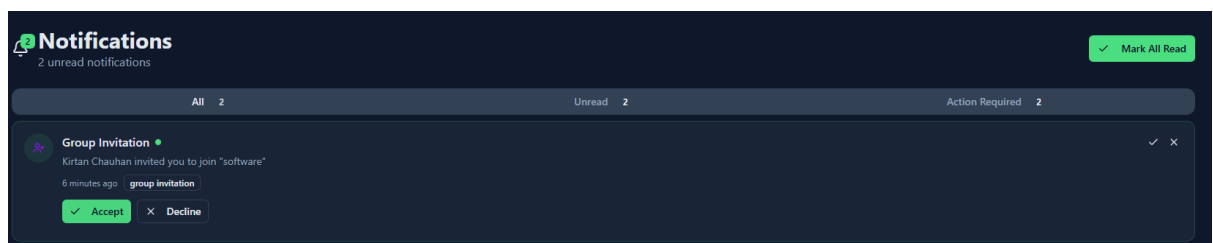
Precondition: A **Group Invitation** notification with **Accept** and **Decline** buttons is visible.

Steps:

1. Go to **Action Required** tab (or All/Unread if it shows there).
2. Click **Accept** on the group invitation.

Expected Result:

- A success message/popup is shown.
- The invitation notification disappears.
- Unread count and Action Required count decrease accordingly by the number times action is performed



Test 5 — Open Group from Expense Notification

Precondition: An expense_owed / settlement / expense notification is visible with a Pay

Steps:

1. Open Notifications page.

2. Click on that notification card or the pay button.

Expected Result:

- The app opens the related **Group** page on the **Balances** tab.
- If the notification was unread, it becomes read and unread count decreases.

