



Dhirubhai Ambani University Technology

Formerly DA-IICT

Group - 28

SYSTEM TESTING

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BlackBox Testing : Dashboard page

1. Dashboard Constraints

Total Expenses

- It Should display the total expenses for the current month by default.
- It Should update when a valid date range is selected from the calendar.
- If there is no expenses in the selected range, total should show ₹0.
- Future dates cannot be selected.

You Owe

- Will show the amount the user owes.
- Value should always be ≥ 0 .
- If value is 0, message should show “All settled up”.

You Are Owed

- Will show the amount other owes to the user.
- Value should always be ≥ 0 .
- If value is 0, than the message should show “All settled up”.

Monthly Budget

- User can only save a positive budget.
- After saving, the progress ring and remaining amount should be updated.

Monthly Savings

- Should be 0 or above (cannot show negative savings).
- Will show over budget If you have spent more than your budget otherwise will show the remaining budget.
- Should be updated whenever expenses change.

Expense Categories (Pie Chart)

- Category-wise total expense should be displayed.
- If no categories exist, “No data for this month” message will be shown.

Daily Spend Trend (Bar Chart)

- Should show day wise total spendings for the current month by default.
- The values on the chart must match the actual expense per day in that range.
- If there are no expenses in the selected range it should show “No data to display” or an empty chart (but no error).

2. Equivalence Class Partitioning (ECP)

Equivalence Class	Total Expenses	You Owe / You Are Owed	Budget	Categories	Result
E1	valid	valid (≥ 0)	valid (> 0)	valid data	success
E2	valid	valid	invalid (empty / non-numeric / ≤ 0)	valid	budget error
E3	no expenses in range	valid	valid	empty categories	show zeros / no-data
E4	valid	invalid negative input	valid	valid	error (should not display negative)
E5	invalid date selection	valid	valid	valid	error / no update
E6	valid	valid	valid	no data for month	pie chart shows empty state

3. Boundary Value Analysis (BVA)

Input	Value	Expected Output	Reason
Date Range	same start & end date	show that day's total	single-day filter
Date Range	range with no expenses	total = ₹0	empty result
Date Range	selecting future date	not allowed	future disabled
Budget	0	cannot save	must be > 0
Budget	minimal positive value (e.g., 1)	saved	lowest valid input
Budget	non-numeric	error	invalid input
You Owe	0	"All settled up!"	zero boundary
You Are Owed	0	"All settled up!"	zero boundary
Categories	all values zero	chart shows no-data state	empty data case
You Owe	₹150.00	Card shows ₹150.00 + "Settlement needed"	positive owe boundary
You Are Owed	₹200.00	Card shows ₹200.00 + "Awaiting repayment"	positive owed boundary
Daily Spend Trend	No expenses in range	Show "No data to display"	empty chart boundary
Daily Spend Trend	Single day expenses	Show single bar for that date	lowest valid data case
Monthly Savings	Budget = Expenses	Savings = ₹0	zero boundary
Monthly Savings	Expenses exceed Budget	Show ₹0	negative prevention boundary

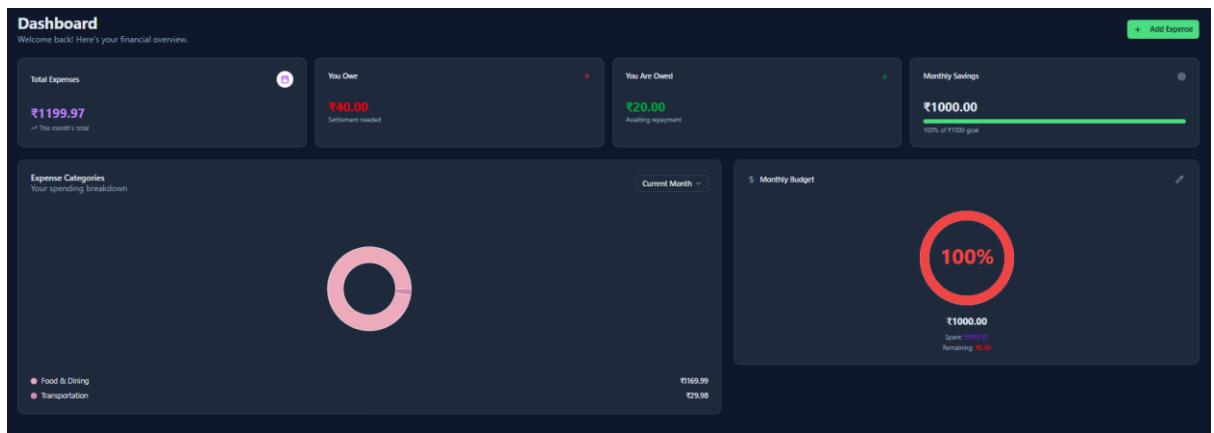
Acceptance Testing — Dashboard Page

Test 1 — Default Month Total Display

Action: Open the Dashboard (no date range selected).

Expected Output:

- Total Expenses card shows the current month total (e.g., ₹1199.97).
- Subtext shows “This month's total”.



Test 2 — Date Range Filter (multiple days)

Action: Click calendar on Total Expenses → select a valid start date and end date (e.g., 17 Nov 2025 → 19 Nov 2025) → Apply.

Expected Output:

- Total Expenses updates to show the sum for that range.
- Right-side list in the calendar modal shows all transactions in that range and the total (e.g., shows 12 transactions and ₹1199.97).

Select Date Range X

From: 17 Nov 2025 To: 19 Nov 2025

November 2025						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17 ₹100	18 ₹1070	19 ₹30	20 •	21	22
23	24	25	26	27	28	29
30	1	2	3	4	5	6

EXPENSES IN RANGE ₹1199.97

12 transactions

- sutta** ₹20.00
Food & Dining Nov 19
- a** ₹9.99
Transportation Nov 19
- Lunch at KFC** ₹150.00
Food & Dining Nov 18
- Lunch at KFC** ₹150.00
Food & Dining Nov 18
- a** ₹9.99
Transportation Nov 18
- Lunch at KFC** ₹150.00
Food & Dining Nov 18
- 12** ₹10.00
Transportation Nov 18
- Lunch at KFC** ₹150.00
Food & Dining Nov 18
- Lunch at KFC** ₹150.00
Food & Dining Nov 18
- Lunch at KFC** ₹150.00
Food & Dining Nov 18

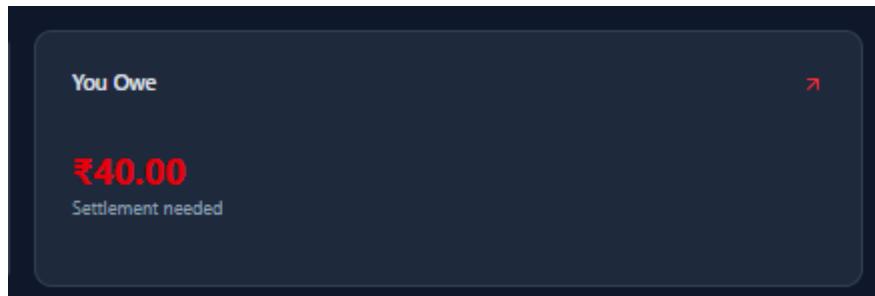
Test 3 — You Owe > 0

Precondition: Create or use a test group state where the user owes ₹40.00.

Action: Open Dashboard.

Expected Output:

- “You Owe” card shows ₹40.00.
- Subtext shows “Settlement needed”.



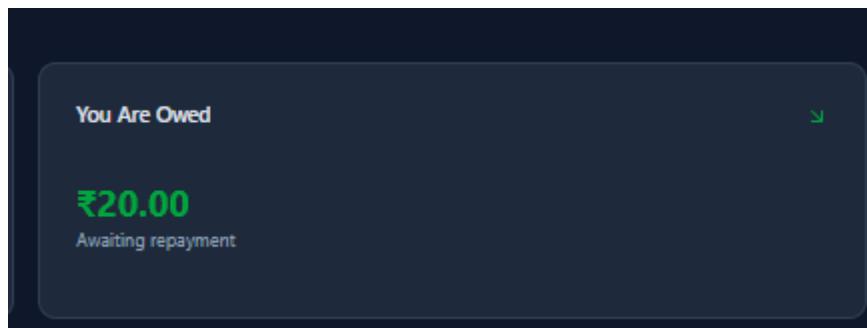
Test 4 — You Are Owed > 0

Precondition / Setup: Create or use a test group state where others owe the user ₹20.00.

Action: Open Dashboard.

Expected Output:

- “You Are Owed” card shows ₹20.00.
- Subtext shows “Awaiting repayment”.



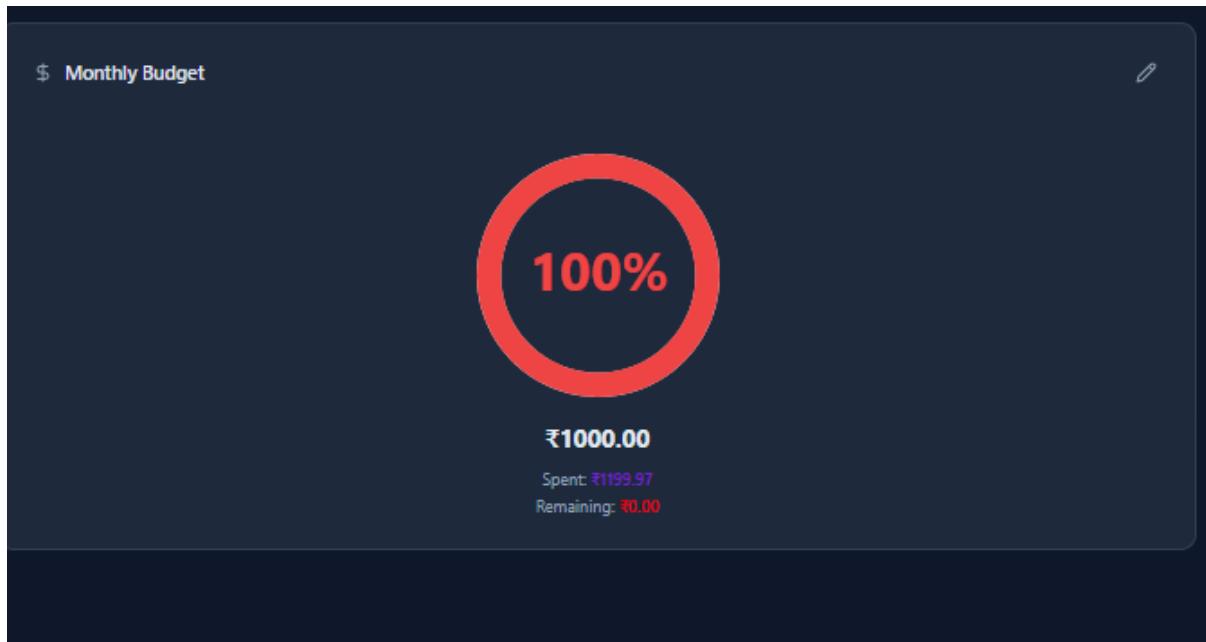
Test 5 — Monthly Budget Save (valid & invalid)

Step A — Valid Save:

Action: Click on Monthly Budget → enter 1000 → Save.

Expected Output:

- Budget saves successfully.

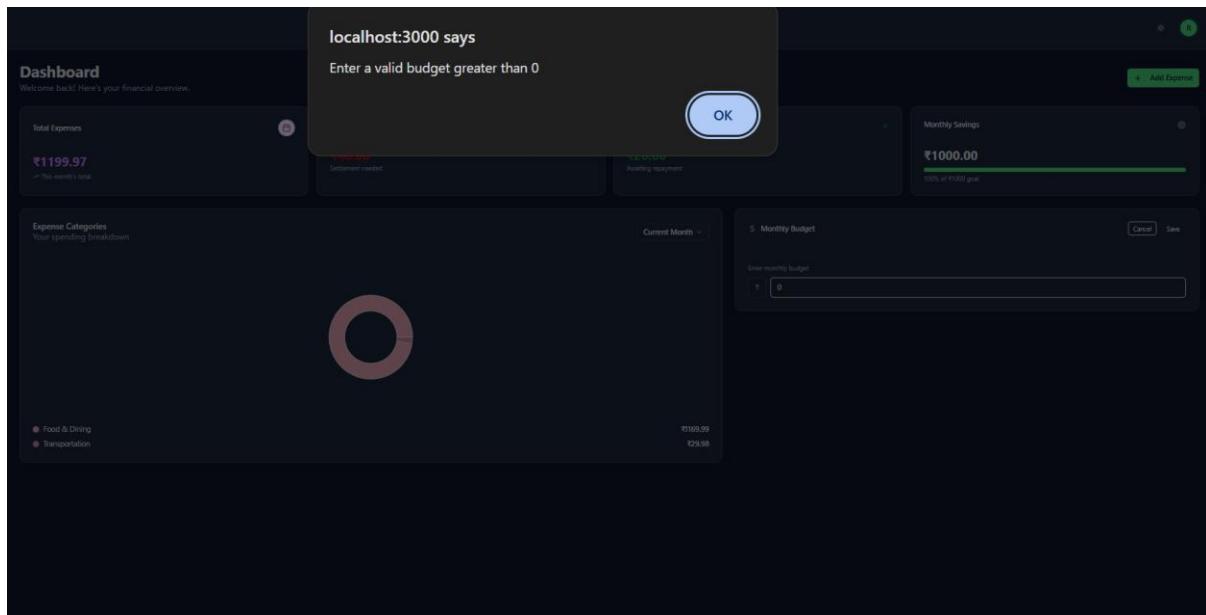


Step B — Invalid Save:

Action: Click pencil → enter 0 or abc → Save.

Expected Output:

- Save is rejected (alert message).
- Budget remains unchanged.

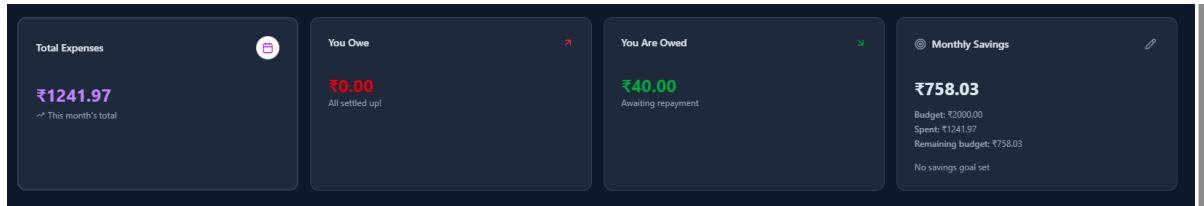


Test 6 — Monthly Savings

Precondition: Budget set to ₹2,000 and existing expenses = ₹1241.97

Expected Result:

- Monthly Savings should be ₹758.03.



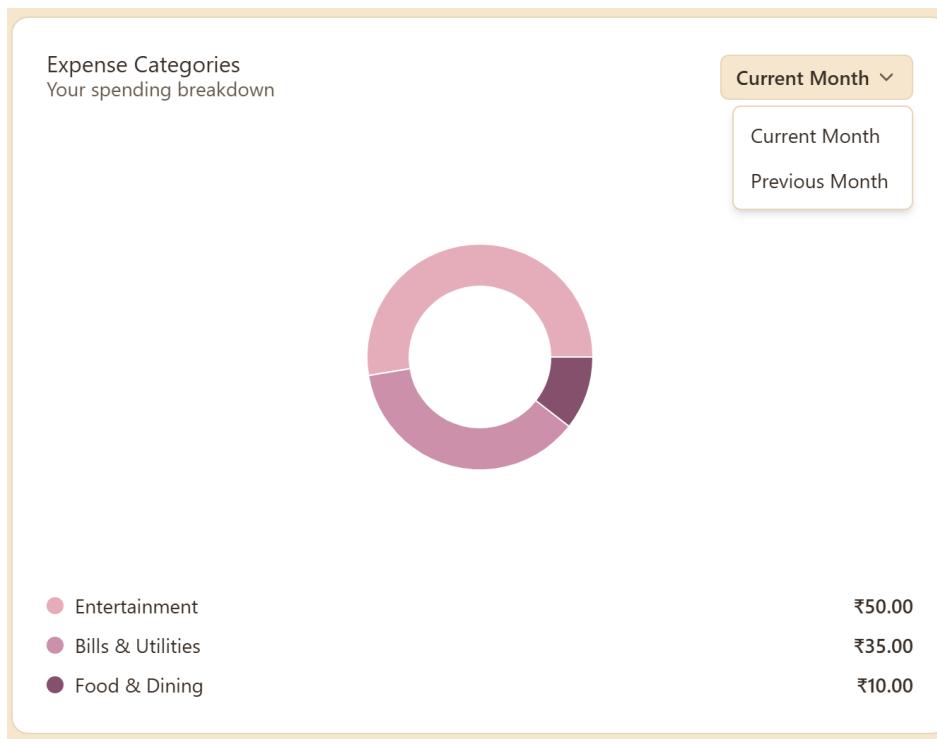
Test 7 — Expense Categories

Categories Display:

Action: On Dashboard, set the period to Current Month (or the Previous Month) by using the dropdown option.

Expected Output:

Pie chart gets updated to show the category divisions and the totals (if there is no data than it will “No data for this month” if empty).





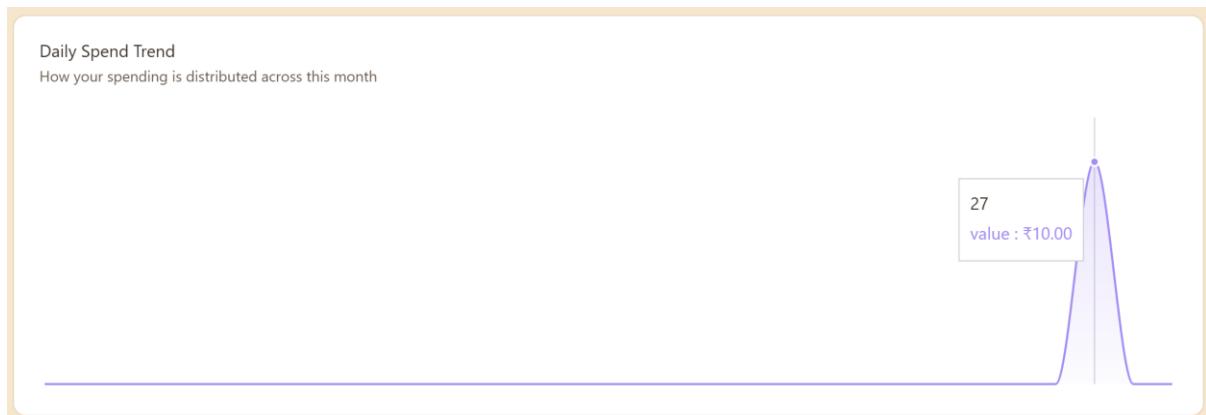
Test 8 – Daily Spend Trend

Precondition:

- Expense have been added by user on multiple days of the month.

Expected Result:

- No point is shown for days with no expense in that range.
- The bars should match exactly with the amount spend on that day.
- When Hovered over the Line , it shows the the amount



Test 9 —Add Expense Navigation

Add Expense Navigation:

Action: On clicking the Add Expense button

Output:

- App should navigate to the add expense page.

Add Expense

Track your personal expense

Personal

Group

Expense Details

Quick Select (Recurring Expenses)

Select a frequently used expense

Select a recurring expense to auto-fill the details.

Title *

e.g., Dinner at Italian Restaurant

Amount *

\$ 0.00

Date *

20-11-2025

Category *

Select a category

⚡ Auto-Categorize with AI

Description (Optional)

Add any additional details...

↑ Receipt (Optional)



Drag and drop your receipt here, or click to browse

Choose File

Supported formats: JPG, PNG, PDF