1 Updated Use Cases
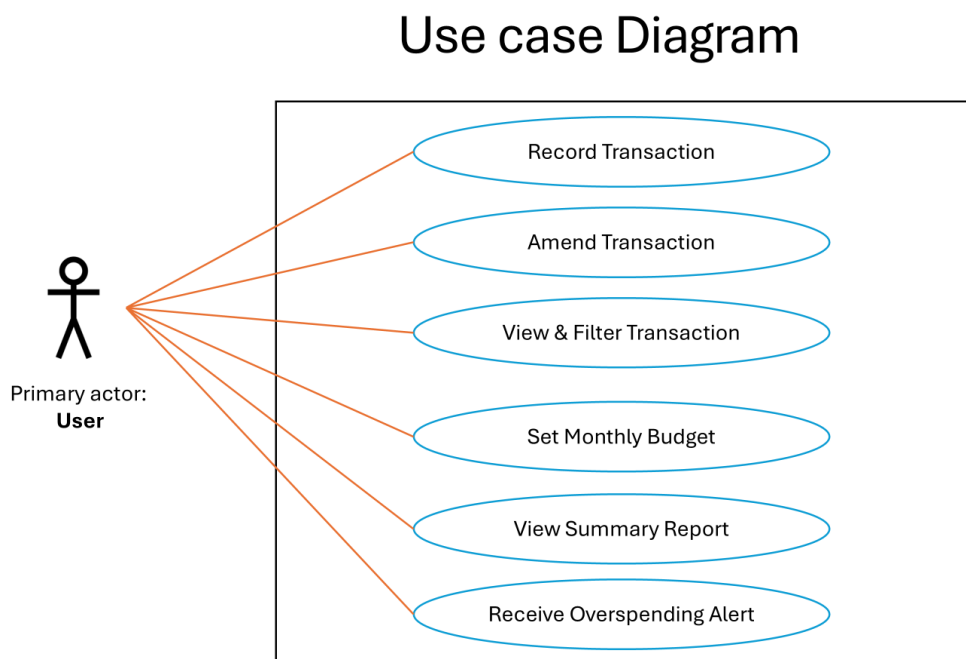
1.1 Actors

- **User** – an individual tracking personal finance.

1.2 Use-Case Diagram

Use case Diagram

1.3 Use-Case Descriptions

1.3.1 UC-1: Record Transaction

- **Actor**: User
- **Goal**: Add a new income or expense.
- **Preconditions**: App is running.

- **Main Flow**: (1) User initiates adding a transaction. (2) System asks for type, amount, date, category, optional note. (3) User confirms. (4) System saves and updates totals.
- **Alternates**: Missing/invalid fields → system requests correction.
- **Postconditions**: Transaction is persisted; summaries reflect it.

1.3.2 UC-2: Amend Transaction

- **Actor**: User
- **Goal**: Modify or delete an existing entry.
- **Preconditions**: At least one transaction exists.
- **Main Flow**: (1) User selects a transaction. (2) System shows details. (3) User edits or deletes. (4) System saves and refreshes totals.
- **Alternates**: Entry not found → system informs user.
- **Postconditions**: History and aggregates reflect the change.

1.3.3 UC-3: View & Filter Transactions

- **Actor**: User
- **Goal**: Review past entries by period/category.
- **Main Flow**: (1) User requests transaction list. (2) System displays entries. (3) User applies filters. (4) System narrows results and updates totals for the selection.
- **Alternates**: No matches → show empty results and zero totals.

1.3.4 UC-4: Set Monthly Budget

- Actor: User
- **Goal**: Define or adjust a per-category spending limit for the current month.
- **Main Flow**: (1) User selects category. (2) System requests limit. (3) User confirms. (4) System stores limit and shows remaining allowance.
- **Alternates**: Invalid limit → system asks for a valid amount.
- **Postconditions**: Budgets available to alerts and reports.

1.3.5 UC-5: View Summary Report

- **Actor**: User
- **Goal**: See totals and category breakdowns for a period.

- **Main Flow**: (1) User selects a period. (2) System computes totals and breakdown. (3) System presents figures and at least one chart.
- **Alternates**: No data in period → system shows zeros and a note.

1.3.6 UC-6: Receive Overspending Alert

- **Actor**: User
- **Goal**: Be notified when a category exceeds its limit.
- **Preconditions**: At least one budget is defined.
- **Main Flow**: (1) System compares spending to limits as transactions are added/viewed. (2) System signals when a limit is reached or exceeded.
- **Alternates**: No budgets defined → no alert.
- Postconditions: User is aware of budget status.