

# Java Expense Tracker Application

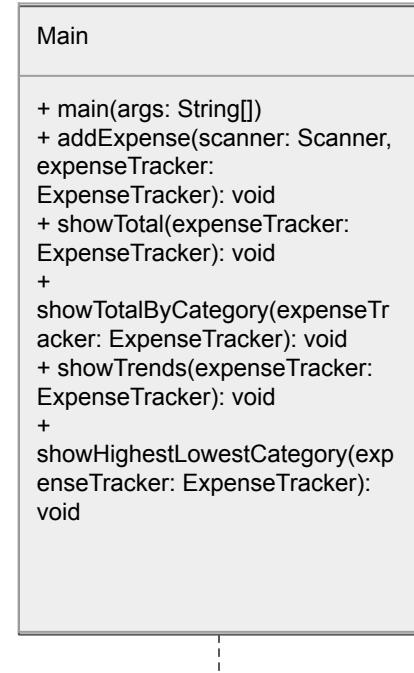
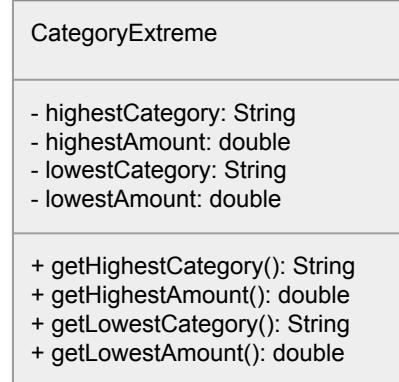
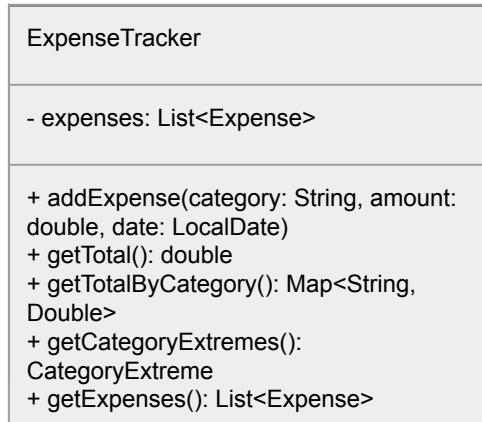
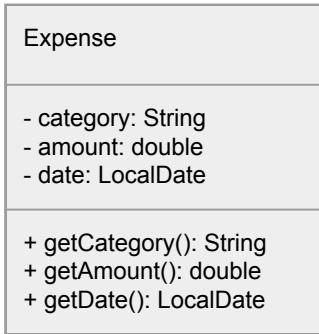


Presented By

**Rovia Simmons**

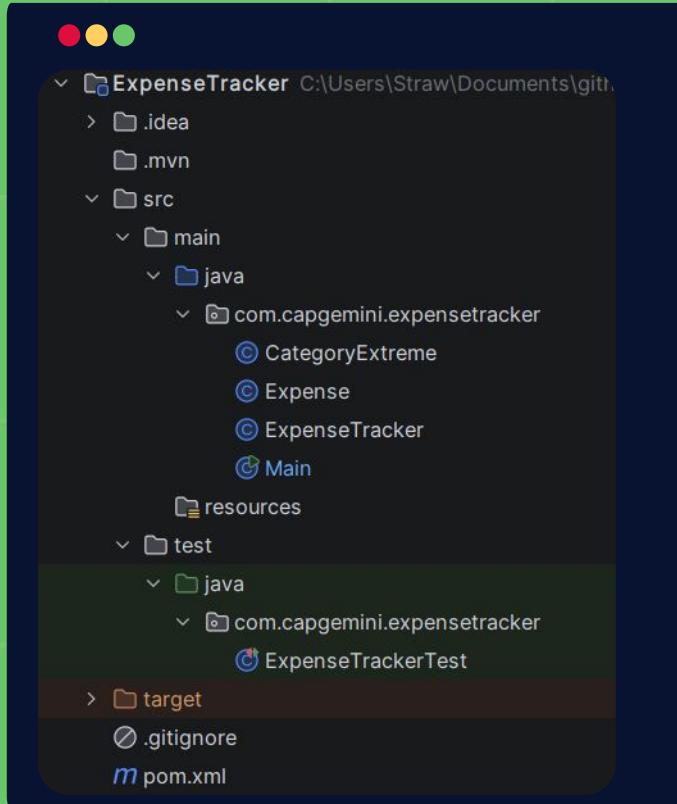
12/14/2025

# Approach and Design



- **Expense** holds data; **ExpenseTracker** manages and analyzes expenses.
- **Main** handles user input/output (CLI).
- Data flows: user → **Main** → **ExpenseTracker** → results.

# Key Files and Folders



Project structure showing main source code and test files



This project uses Maven structure

## Main Files:

- `Main.java`: The application's entry point.
- `ExpenseTracker.java`: Contains the core logic for expense handling.
- `Expense.java`: The data model for an individual expense.

**Test Files:** `ExpenseTrackerTest.java`: Contains the unit tests to verify the functionality

# Process to Run, Test, and Verify



## Run the application

Locate the folder with the POM file in the command line

```
mvn clean compile
```

```
mvn exec:java -Dexec.mainClass="com.capgemini.expensetracker.Main"
```



## Run the tests and verify ExpenseTracker works

```
Mvn test
```



## Add sample/seed data

Enter expenses via CLI prompts

Or pre-populate in Main.java:



## Add sample/seed data

```
public class Main { & Rovia Simmons *
    public static void main(String[] args) { & Rovia Simmons *
        System.out.println("Welcome to the Expense Tracker App!");

        Scanner scanner = new Scanner(System.in);
        ExpenseTracker expenseTracker = new ExpenseTracker();

        // pre-populate here!
        expenseTracker.addExpense( category: "Food", amount: 12.50, LocalDate.of( year: 2025, month: 12, dayOfMonth: 13));
        expenseTracker.addExpense( category: "Transport", amount: 3.75, LocalDate.of( year: 2025, month: 12, dayOfMonth: 14));
        expenseTracker.addExpense( category: "Entertainment", amount: 25.00, LocalDate.of( year: 2025, month: 12, dayOfMonth: 15));
```

# Test Data and Seed Data



Manual data:

```
1 Food 11.60 2025-12-12
1 Transport 1.79 2025-12-12
1 Transport 3.79 2025-12-14
1 Entertainment 25.00 2025-12-13
```

OR pre-populate Main.java:

```
public class Main { & Rovia Simmons *
    public static void main(String[] args) { & Rovia Simmons *
        System.out.println("Welcome to the Expense Tracker App!");

        Scanner scanner = new Scanner(System.in);
        ExpenseTracker expenseTracker = new ExpenseTracker();

        // pre-populate here!
        expenseTracker.addExpense( category: "Food", amount: 12.50, LocalDate.of( year: 2025, month: 12, dayOfMonth: 13));
        expenseTracker.addExpense( category: "Transport", amount: 3.75, LocalDate.of( year: 2025, month: 12, dayOfMonth: 14));
        expenseTracker.addExpense( category: "Entertainment", amount: 25.00, LocalDate.of( year: 2025, month: 12, dayOfMonth: 15));
```