**WEEK-3**

Task – Expense Tracker

import java.util.ArrayList;

import java.util.Scanner;

public class Expense {

private String description;

private double amount;

private String category;

public Expense(String description, double amount, String category) {

this.description = description;

this.amount = amount;

this.category = category;

}

public String getDescription() {

return description;

}

public double getAmount() {

return amount;

}

public String getCategory() {

return category;

}

*@Override*

public String toString() {

return "Description: " + description + ", Amount: " + amount + ", Category: " + category;

}

}

public class ExpenseTracker {

private ArrayList<Expense> expenses;

public ExpenseTracker() {

expenses = new ArrayList<>();

}

public void addExpense(String description, double amount, String category) {

Expense expense = new Expense(description, amount, category);

expenses.add(expense);

}

public void viewExpenses() {

for (Expense expense : expenses) {

System.***out***.println(expense);

}

}

public double getTotalExpenses() {

double total = 0;

for (Expense expense : expenses) {

total += expense.getAmount();

}

return total;

}

public double getTotalExpensesByCategory(String category) {

double total = 0;

for (Expense expense : expenses) {

if (expense.getCategory().equalsIgnoreCase(category)) {

total += expense.getAmount();

}

}

return total;

}

public static void main(String[] args) {

// **TODO** Auto-generated method stub

ExpenseTracker tracker = new ExpenseTracker();

Scanner scanner = new Scanner(System.***in***);

while (true) {

System.***out***.println("\nExpense Tracker Menu:");

System.***out***.println("1. Add Expense");

System.***out***.println("2. View Expenses");

System.***out***.println("3. Expense Summaries");

System.***out***.println("4. Exit");

System.***out***.print("Enter your choice: ");

int choice = scanner.nextInt();

switch (choice) {

case 1:

System.***out***.print("Enter Description: ");

String description = scanner.next();

System.***out***.print("Enter Amount: ");

double amount = scanner.nextDouble();

System.***out***.print("Enter Category: ");

String category = scanner.next();

tracker.addExpense(description, amount, category);

System.***out***.println("Expense added successfully.");

break;

case 2:

tracker.viewExpenses();

break;

case 3:

System.***out***.println("1. Total Expenses");

System.***out***.println("2. Total Expenses by Category");

int summaryChoice = scanner.nextInt();

if (summaryChoice == 1) {

System.***out***.println("Total Expenses: " + tracker.getTotalExpenses());

} else if (summaryChoice == 2) {

System.***out***.print("Enter Category: ");

String summaryCategory = scanner.next();

System.***out***.println("Total Expenses in " + summaryCategory + ": " + tracker.getTotalExpensesByCategory(summaryCategory));

}

break;

case 4:

System.***out***.println("Exiting Expense Tracker. Goodbye!");

scanner.close();

System.*exit*(0);

default:

System.***out***.println("Invalid choice. Please enter a valid option.");

}

}

}

}

**Output**

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 1

Enter Description: vegetables

Enter Amount: 200

Enter Category: groceries

Expense added successfully.

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 1

Enter Description: snacks

Enter Amount: 100

Enter Category: groceries

Expense added successfully.

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 1

Enter Description: movie

Enter Amount: 100

Enter Category: entertainment

Expense added successfully.

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 1

Enter Description: trip

Enter Amount: 2000

Enter Category: entertainment

Expense added successfully.

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 2

Description: vegetables, Amount: 200.0, Category: groceries

Description: snacks, Amount: 100.0, Category: groceries

Description: movie, Amount: 100.0, Category: entertainment

Description: trip, Amount: 2000.0, Category: entertainment

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 3

1. Total Expenses

2. Total Expenses by Category

1

Total Expenses: 2400.0

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 3

1. Total Expenses

2. Total Expenses by Category

2

Enter Category: entertainment

Total Expenses in entertainment: 2100.0

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: 3

1. Total Expenses

2. Total Expenses by Category

2

Enter Category: groceries

Total Expenses in groceries: 300.0

Expense Tracker Menu:

1. Add Expense

2. View Expenses

3. Expense Summaries

4. Exit

Enter your choice: