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Task 02: Task 2: Expense Tracker

- Objective: Develop a basic expense tracking application in Java.

Answer :Creating a complete Expense Tracker in Java is a significant project, but I can provide you with an outline to get you started. You'll likely need additional classes and methods to organize your code effectively, but this will give you a basic structure to build upon:

```
Import java.util.ArrayList;
```

```
Import java.util.Scanner;
```

```
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;
```

```
    }
```

```
    // Getters and setters for the expense properties
```

```
}
```

```
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("Description: " + expense.getDescription());  
        System.out.println("Amount: " + expense.getAmount());  
        System.out.println("Category: " + expense.getCategory());  
    }  
}
```

```
// Implement methods for expense summaries, data persistence, and input validation
```

```
Public static void main(String[] args) {  
    ExpenseTracker tracker = new ExpenseTracker();  
    Scanner input = new Scanner(System.in);  
  
    While (true) {  
        System.out.println("Expense 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 = input.nextInt();
```

```
Switch (choice) {  
    Case 1:  
        // Add Expense  
        System.out.print("Enter Description: ");  
        String description = input.next();  
        System.out.print("Enter Amount: ");  
        Double amount = input.nextDouble();  
        System.out.print("Enter Category: ");  
        String category = input.next();  
        Tracker.addExpense(description, amount, category);  
        Break;  
    Case 2:  
        // View Expenses  
        Tracker.viewExpenses();  
        Break;  
    Case 3:  
        // Implement expense summaries  
        Break;  
    Case 4:  
        System.out.println("Exiting Expense Tracker. Have a nice day!");  
        System.exit(0);  
    Default:  
        System.out.println("Invalid choice. Please try again.");  
}  
}  
}  
}
```

This is a basic starting point for an Expense Tracker application in Java. You can expand and enhance it with additional features, such as data persistence using file handling, more sophisticated summaries, and input validation as needed.