

Group Name  
Project Title

- **Budget Planner**

Group Members Matric Numbers and Names

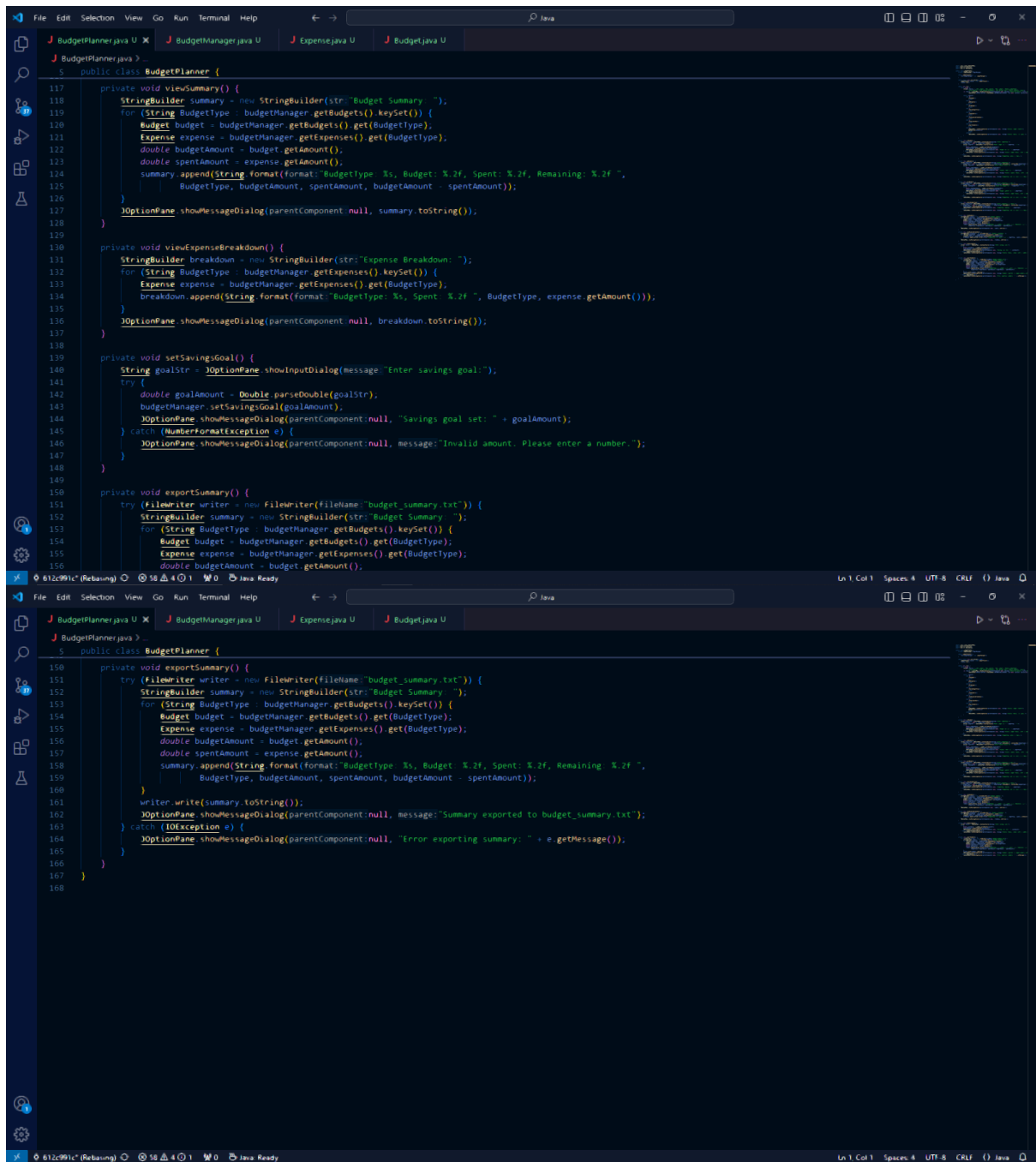
- |                             |                   |
|-----------------------------|-------------------|
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| 2. Daniel Sase Jr           | BHU/22/04/05/0061 |
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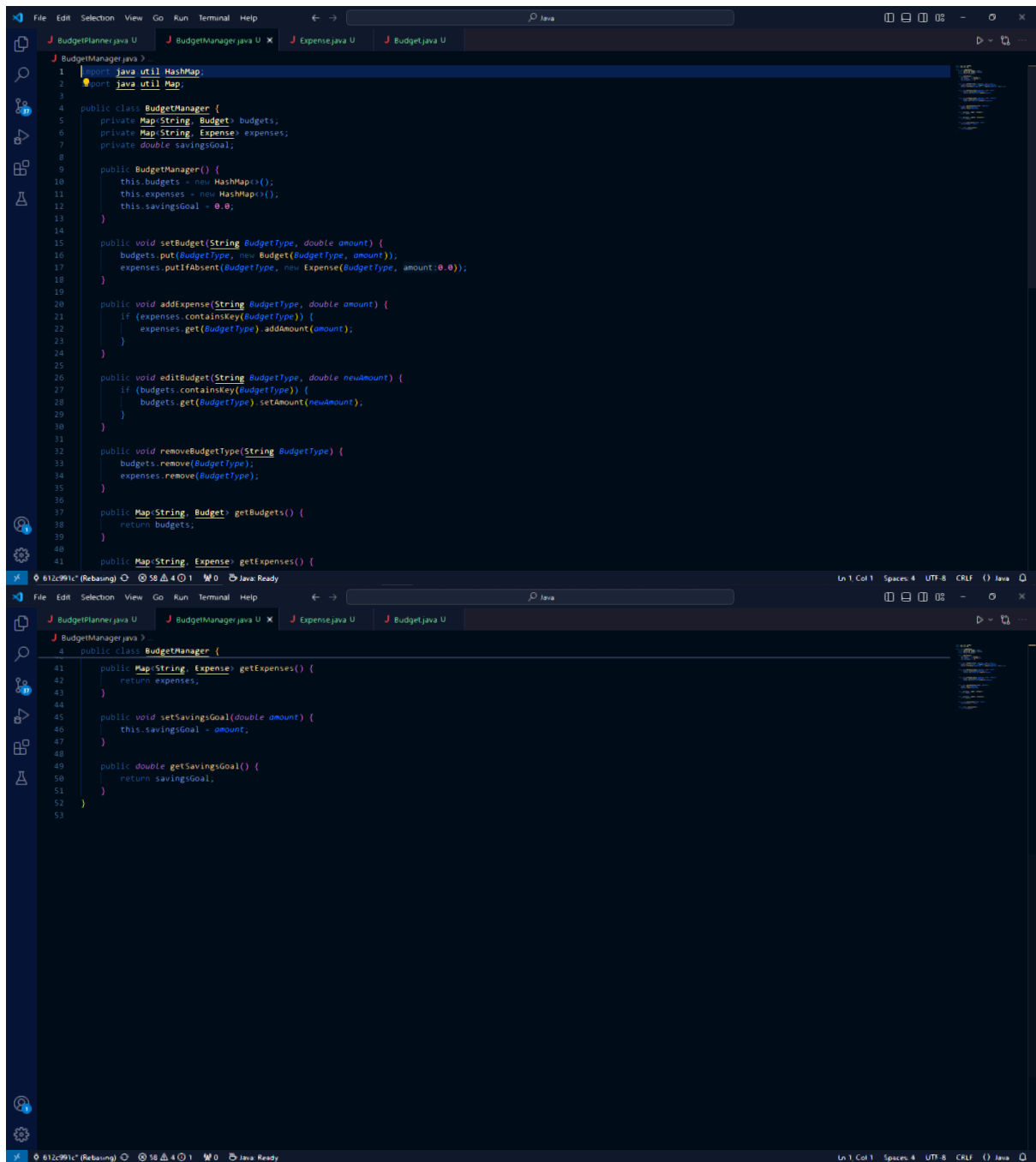
## Project Description and Screenshots

The Budget Planner app is a basic Java program that helps you manage your money. It allows you to set budgets, track expenses, and view financial summaries. The app uses a simple graphical interface with pop-up windows for interacting with the user. Its main parts include:

1. **BudgetPlanner:** The main part of the app that provides the user interface. It lets you do things like set budgets, add expenses, edit budgets, remove categories, view summaries, set savings goals, view expense breakdowns, and export summaries.
2. **BudgetManager:** This part handles the budgets and expenses. It stores data in collections and lets you do things like set budgets, add expenses, edit budgets, remove categories, and set savings goals.
3. **Budget:** This represents a budget for a specific category. It has details about the category and the budgeted amount.
4. **Expense:** This represents expenses for a specific category. It has details about the category and the total amount spent. The app is created using Object-Oriented Programming (OOP) principles. This makes it modular, easy to maintain, and simple to add new features.

```
File Edit Selection View Go Run Terminal Help
J BudgetPlanner.java U J BudgetManager.java U J Expense.java U J Budget.java U
J BudgetPlanner.java >
5 public class BudgetPlanner {
17     public void run() {
40         case 5
41             viewExpenseBreakdown();
42             break;
43         case 6
44             setSavingsGoal();
45             break;
46         case 7
47             exportSummary();
48             break;
49         case 8
50             JOptionPane.showMessageDialog(parentComponent, null, message: "Exiting Budget Planner",
51             System.exit(status:0);
52             break;
53         default
54             JOptionPane.showMessageDialog(parentComponent, null, message: "Invalid choice. Try again.");
55     }
56 }
57
58 private void setBudget() {
59     String BudgetType = JOptionPane.showInputDialog(message: "Enter BudgetType:");
60     if (BudgetType != null && !BudgetType.isEmpty()) {
61         String budgetStr = JOptionPane.showInputDialog("Enter budget for " + BudgetType + ":");
62         try {
63             double budgetAmount = Double.parseDouble(budgetStr);
64             budgetManager.setBudget(BudgetType, budgetAmount);
65             JOptionPane.showMessageDialog(parentComponent, null, "Budget set for " + BudgetType);
66         } catch (NumberFormatException e) {
67             JOptionPane.showMessageDialog(parentComponent, null, message: "Invalid budget amount. Enter a number.");
68         }
69     } else {
70         JOptionPane.showMessageDialog(parentComponent, null, message: "BudgetType cannot be empty.");
71     }
72 }
73
74 private void addExpense() {
75     String BudgetType = JOptionPane.showInputDialog(message: "Enter BudgetType:");
76     if (BudgetType != null && !BudgetType.isEmpty() && budgetManager.getBudgets().containsKey(BudgetType)) {
77         String expenseStr = JOptionPane.showInputDialog("Enter expense amount for " + BudgetType + ":");
78
80         double expenseAmount = Double.parseDouble(expenseStr);
81         budgetManager.addExpense(BudgetType, expenseAmount);
82         JOptionPane.showMessageDialog(parentComponent, null, "Expense added for " + BudgetType);
83     } catch (NumberFormatException e) {
84         JOptionPane.showMessageDialog(parentComponent, null, message: "Invalid expense amount. Enter a number.");
85     } else {
86         JOptionPane.showMessageDialog(parentComponent, null, message: "BudgetType does not exist or is empty.");
87     }
88 }
89
90 private void editBudget() {
91     String BudgetType = JOptionPane.showInputDialog(message: "Enter BudgetType to edit");
92     if (BudgetType != null && !BudgetType.isEmpty() && budgetManager.getBudgets().containsKey(BudgetType)) {
93         String newBudgetStr = JOptionPane.showInputDialog("Enter new budget for " + BudgetType + ":");
94         try {
95             double newBudgetAmount = Double.parseDouble(newBudgetStr);
96             budgetManager.editBudget(BudgetType, newBudgetAmount);
97             JOptionPane.showMessageDialog(parentComponent, null, "Budget updated for " + BudgetType);
98         } catch (NumberFormatException e) {
99             JOptionPane.showMessageDialog(parentComponent, null, message: "Invalid budget amount. Enter a number.");
100         }
101     } else {
102         JOptionPane.showMessageDialog(parentComponent, null, message: "BudgetType does not exist or is empty.");
103     }
104 }
105
106 private void removeBudgetType() {
107     String BudgetType = JOptionPane.showInputDialog(message: "Enter BudgetType to remove");
108     if (BudgetType != null && !BudgetType.isEmpty() && budgetManager.getBudgets().containsKey(BudgetType)) {
109         budgetManager.removeBudgetType(BudgetType);
110         JOptionPane.showMessageDialog(parentComponent, null, "BudgetType removed " + BudgetType);
111     } else {
112         JOptionPane.showMessageDialog(parentComponent, null, message: "BudgetType does not exist or is empty.");
113     }
114 }
115
116 private void viewSummary() {
117     StringBuilder summary = new StringBuilder("Budget Summary ");
118 }
```

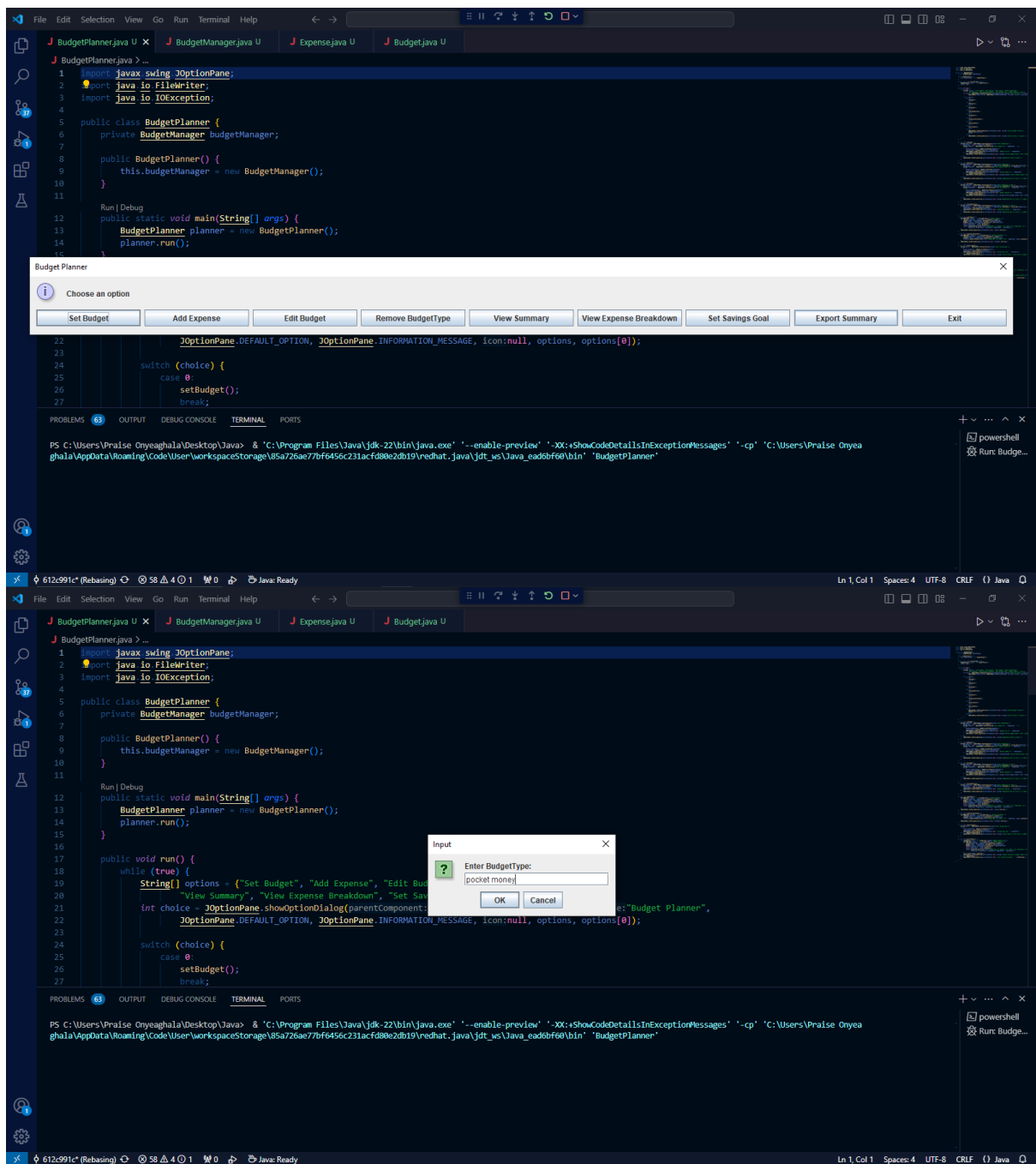




The screenshot shows an IDE window with a dark theme. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. Below the menu bar, there are four tabs: BudgetPlanner.java U, BudgetManager.java U, Expense.java U (active), and Budget.java U. The main editor area displays the following Java code for the Expense class:

```
1 public class Expense {
2     private String BudgetType;
3     private double amount;
4
5     public Expense(String BudgetType, double amount) {
6         this.BudgetType = BudgetType;
7         this.amount = amount;
8     }
9
10    public String getBudgetType() {
11        return BudgetType;
12    }
13
14    public double getAmount() {
15        return amount;
16    }
17
18    public void addAmount(double amount) {
19        this.amount += amount;
20    }
21 }
22
```

The status bar at the bottom indicates the file is 6120991c (Rebasing), has 58 lines, 4 columns, and 0 words. It also shows 'Java Ready' and the current cursor position is Ln 1, Col 1. The encoding is UTF-8, line endings are CRLF, and the language is Java.



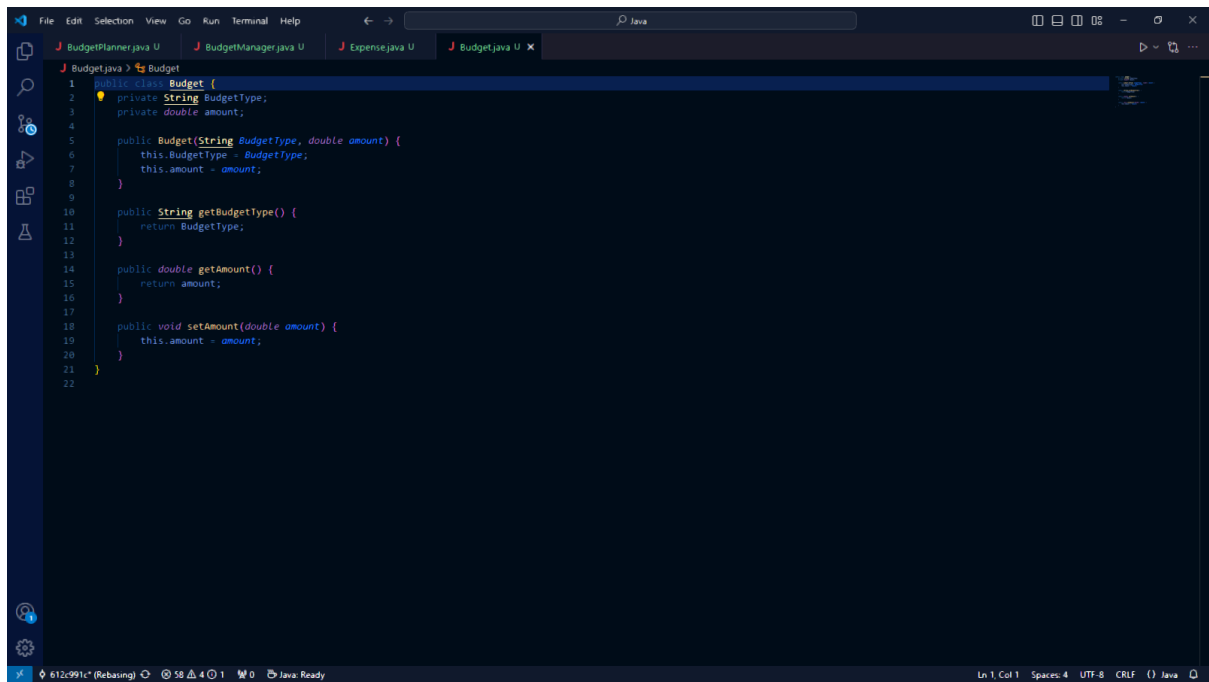












The screenshot shows an IDE window with a dark theme. The top menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. Below the menu bar, there are four tabs: BudgetPlanner.java U, BudgetManager.java U, Expense.java U, and Budget.java U. The Budget.java U tab is active, displaying the following Java code:

```
1 public class Budget {  
2     private String BudgetType;  
3     private double amount;  
4  
5     public Budget(String BudgetType, double amount) {  
6         this.BudgetType = BudgetType;  
7         this.amount = amount;  
8     }  
9  
10    public String getBudgetType() {  
11        return BudgetType;  
12    }  
13  
14    public double getAmount() {  
15        return amount;  
16    }  
17  
18    public void setAmount(double amount) {  
19        this.amount = amount;  
20    }  
21 }  
22
```

The status bar at the bottom shows "6120911" (Rebasing), "58 4 1", "Java Ready", and "Ln 1, Col 1 Spaces: 4 UTF-8 CRLF () Java".

Team Member One Contribution(Praise ikenna Onyeaghala BHU/22/04/05/0092 )

The BudgetPlanner class in the Budget Planner application manages user interactions, using dialog boxes for input and information display. It serves as the controller in the Model-View-Controller design pattern, handling data flow between the user interface and the business logic. Responsibilities include:

- **managing the user interface,**
- **handling events,**
- **interacting with data,**
- **controlling the application flow.**

- Team Member Two Contribution (Daniel Sase Jr BHU/22/04/05/0061)

The BudgetManager class in the Budget Planner application is responsible for managing budgets and expenses. It serves as the "Model" in the Model-View-Controller (MVC) pattern, handling data manipulation and business logic. responsibilities include:

- **data storage,**
- **data manipulation,**
- **business logic implementation.**

Team Member Three Contribution (**Samson Praise Chidera**  
**BHU/22/04/09/0028**)

The Budget class in the Budget Planner application serves as a data model representing the budget allocated for a specific category. It encapsulates all the details associated with a budget, including the category name and the amount allocated. Its responsibilities are

- **data encapsulation,**
- **data manipulation, and**
- **serving as a representation of a specific financial category's budget.**

It provides methods to access and modify the budgeted amount, ensuring structured storage and access of information. This allows for operations such as setting and updating the budget, making it easy to manage and manipulate multiple categories in the application.

The Expense class within the Budget Planner application serves as a data model for managing and encapsulating spending details related to a specific category. It stores information about the category name and the total amount spent, providing ease in tracking and managing expenses across different categories. The class is responsible for:

- **data encapsulation**
- **Manipulation**
- **representation of expenses for a specific category.**



Screenshot of Github Contribution Page for the project

