#### **BudgetPlanner**

An application that can be used for personal budget planning.

#### **Description:**

BudgetPlanner is a C# Console Application created in Visual Studio, that allows users to enter their monthly incomes and expenses and calculates their available monthly money.

### **How to use the BudgetPlanner App:**

- 1) To start off, open up Visual Studio and select the option to open an existing Visual Studio project.
- 2) Select the BudgetPlanner folder and open up the BudgetPlanner.sIn project.
- 3) Once the project is open, run the program by pressing the green arrow/ start button.
- 4) Once the program is running, the user will be prompted to follow the instructions and enter in the requested information such as their gross monthly income, their estimated tax deducted, expenses such as groceries, water and lights, travel costs, phone costs and if the user has any other expenses that have not been asked for, they are prompted to enter how many other expenses they have and then they are prompted to enter what the name of that expense is and what the cost is.
- 5) The user then chooses whether they are renting accommodation or buying a property.
- 6) If the user selects to rent, then the user is prompted to enter their monthly rental amount.
- 7) If the user selects to buy a property, then they will be prompted to enter the purchase price of the property, the total deposit amount, the home loan interest rate as well as the number of months they have to repay the home loan. The home loan is then calculated and if the home loan repayment is more than a third of the user's gross monthly income, then a warning is displayed indicating that the home loan is unlikely.
- 8) Once the relevant information has been provided, the application displays the user's incomes and expenses as well as the calculated amount of money left over for the month.

#### **Examples of various scenarios with the BudgetPlanner App:**

Figure 1 shows that the user chose to include 2 other expenses and since they are renting accommodation, they were prompted to enter their monthly rental amount.

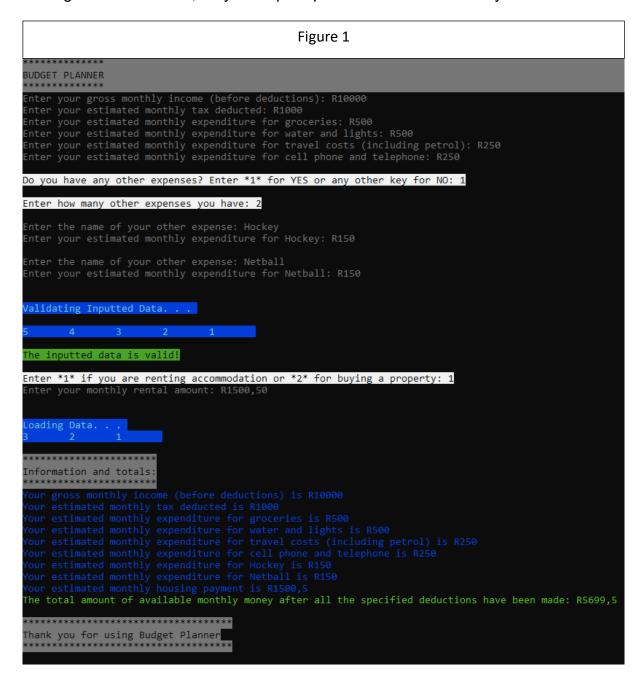


Figure 2 shows that the user chose does not have any other expenses and since they are buying a property, they were prompted to enter the relevant information regarding paying back their home loan.

```
Figure 2
BUDGET PLANNER
 Enter your gross monthly income (before deductions): R100000
Enter your estimated monthly tax deducted: R10000
Enter your estimated monthly expenditure for groceries: R500
 enter your estimated monthly expenditure for water and lights: R500
Enter your estimated monthly expenditure for travel costs (including petrol): R250,50
Do you have any other expenses? Enter *1* for YES or any other key for NO: 0
 alidating Inputted Data.
 he inputted data is valid!
Enter *1* if you are renting accommodation or *2* for buying a property: 2
Enter the purchase price of your property: R50000
Enter the total deposit amount for your property: R10000
Enter the interest rate (percentage) for your property: 5
Enter the number of months (between 240 and 360) to repay your property: 250
 alidating Home Loan Data. . .
 The inputted home loan data is valid!
  oading Data. . .
Information and totals:
 Your gross monthly income (before deductions) is R100000 Your estimated monthly tax deducted is R10000
 he total amount of available monthly money after all the specified deductions have been made: R86239
 ********
 Thank you for using Budget Planner
```

Figure 3 shows that the user chose does not have any other expenses and since they are buying a property, they were prompted to enter the relevant information regarding paying back their home loan, but this time, the loan is unlikely to be approved as the home loan repayment is more than a third of the user's gross monthly income and the user doesn't have any left over money.



Figure 4, Figure 5 and Figure 6 shows some of the possible instances where the user enters invalid numbers so the app displays an error message and re-prompts the user for valid data.

```
Figure 4
BUDGET PLANNER
Enter your gross monthly income (before deductions): Rhjk
Enter your estimated monthly tax deducted: R212.5 Enter your estimated monthly expenditure for groceries: Rui
Enter your estimated monthly expenditure for water and lights: R423d
Enter your estimated monthly expenditure for travel costs (including petrol): R
Do you have any other expenses? Enter *1* for YES or any other key for NO: 1
Enter how many other expenses you have: k
    is not a valid number!
Enter how many other expenses you have: 2
/alidating Inputted Data. . .
 inter your gross monthly income (before deductions): R10000.90
 lease use ',' instead of '.'!
 nter your gross monthly income (before deductions): R10000,90
Frror!
 ui" is not a valid number!
enter your estimated monthly expenditure for groceries: R20
```

```
Figure 5
 rror!
" is not a valid number!
 nter your estimated monthly expenditure for travel costs (including petrol): R30
      e use ',' in R20.78 instead of '.'!
 ds" is not a valid number!
The inputted data is valid!
Enter *1* if you are renting accommodation or *2* for buying a property: hjs
Error! Invalid option.
Enter *1* if you are renting accommodation or *2* for buying a property: 89
Error! Invalid option.
Enter *1* if you are renting accommodation or *2* for buying a property: 2
Enter the purchase price of your property: Rj
Enter the total deposit amount for your property: R90.20
Enter the interest rate (percentage) for your property: 5
Enter the number of months (between 240 and 360) to repay your property: 100
Validating Home Loan Data. . .
Error!
"j" is not a valid number!
enter the purchase price of your property: R10000
:rror!
'100" is not within the 240-360 range!
 400" is not within the 240-360 range!
enter the number of months (between 240 and 360) to repay your property: 290
The inputted home loan data is valid!
 oading Data. . .
```

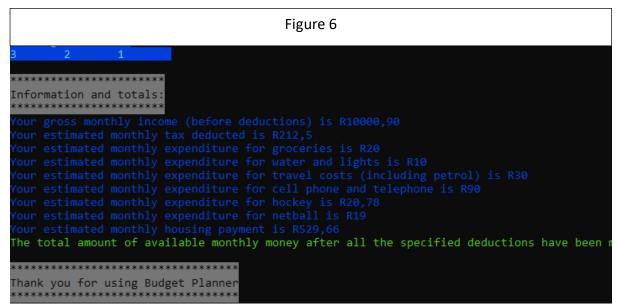


Figure 7 shows that the user has the option to rerun the BudgetPlanner App.

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