# PERSONAL BUDGET PLANNER

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#### **Description**

This application is a personal budget planner. It allows users to enter an income and month for this income. This allows for multiple budgets to be made for different months, during run time. There are 5 screens available to be accessed. The first is to enter an income and month as discussed before. There are 3 screens for expense input. These are generic expenses, vehicle expense and property expense. Generic expenses consist of tax deductions, Groceries, Water and lights, Travel costs, Cell phone/telephone and Other expenses. In property expense, you may choose rent which consists of Monthly rental amount or buying which consists of Purchase price of property, Total deposit, Interest rate and Number of months to repay. A vehicle expense consists of make, model, purchase price, total deposit, interest rate and insurance premium. The application will perform calculations and display a budget report for the user with the total money left over after deducting all expenses. The total money left is updated after every expense is made. A message is displayed if a users Home loan is likely to be approved, if they selected to buy a property. A message is also displayed when the total expenses exceed 75% of the users income. This message will be displayed after every Expense made, where 75% of the income is exceeded. This is done to continually warn a user that the expenses exceed 75% of the income because they may make an expense that is excessive, however forget then make another expense further exceeding the 75% mark, thus the application continually alerts the user so they do not forget. The 5<sup>th</sup> screen offers the user an option to view a report of all budgets calculated during run time. This application persists no data between runs.

## Software required:

Visual Studio 2019

## **Hardware requirements:**

You will need the following hardware requirements to run Visual studio 2019

- 1.8 GHz or faster processor. Quad-core or better recommended.
- 2 GB of RAM; 8 GB of RAM recommended
- Hard disk Space: Minimum of 800MB up to 210 GB of available space.

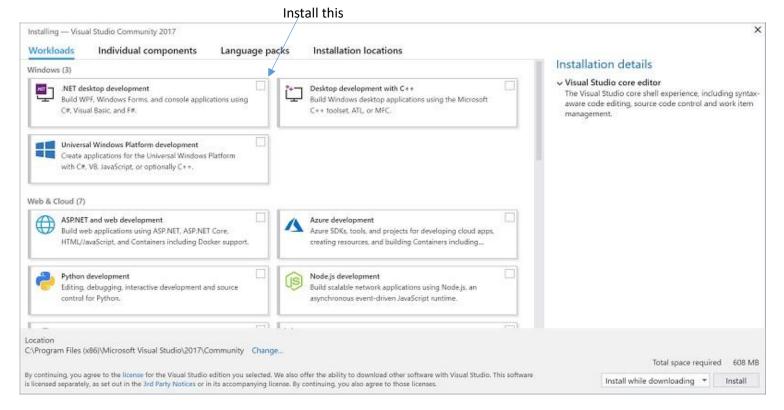
To successfully run this application, you will require Visual Studio 2019 on your device with the following Workloads attached: .NET desktop development & Universal Windows Platform development.

#### Installation:

Link for the installation for Visual Studio 2019:

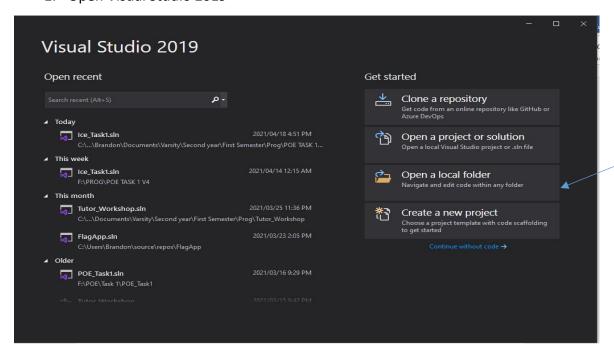
https://visualstudio.microsoft.com/downloads/
Link for the installation tutorial for
Visual Studio 2019: <a href="https://docs.microsoft.com/en-us/visualstudio/install/install-visual-studio?view=vs-2019">https://docs.microsoft.com/en-us/visualstudio/install/install-visual-studio?view=vs-2019</a>

#### Under workloads when installing be sure to select ".Net desktop development"



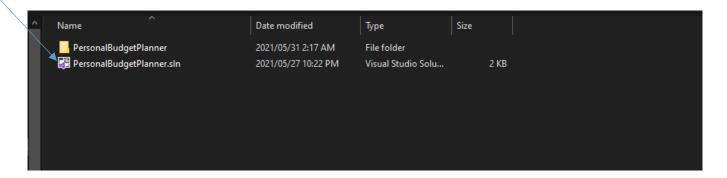
## Running the application in visual studio 2019

1. Open Visual Studio 2019

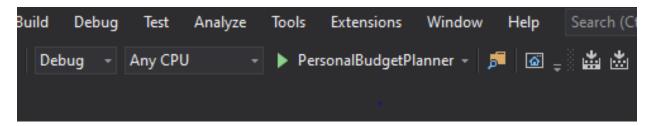


2. Click "Open a project or solution"

3. Unzip if necessary and open the "Budget app" folder then select the "PersonalBudgetPlanner.sln" file

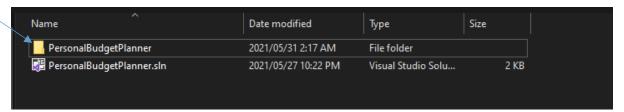


4. When it opens in Visual Studio, click "PersonalBudgetPlanner" with the green play button next to it

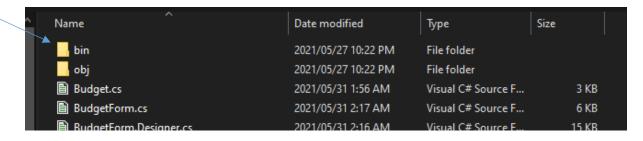


## **Run application file**

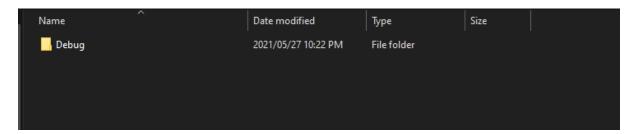
- 1. Unzip if necessary and open the "PersonalBudgetPlanner" folder
- 2. Open the "PersonalBudgetPlanner" folder



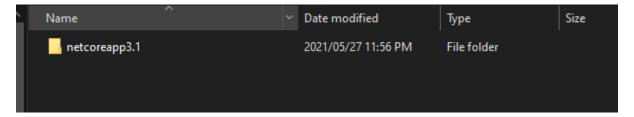
3. Open the "bin" folder



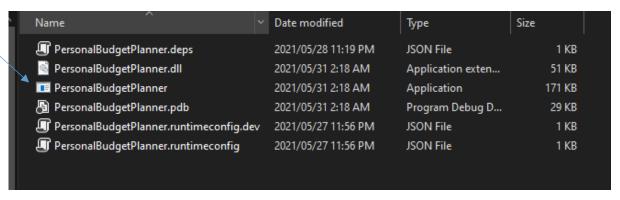
#### 4. Open the "Debug" folder



#### 5. Open the "netcoreapp3.1" folder

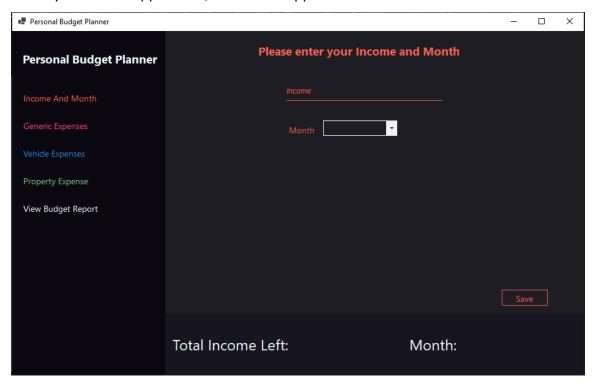


#### 6. Open the "PersonalBudgetPlanner" application file

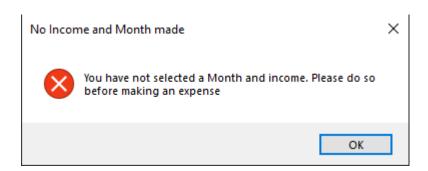


## **Application Use**

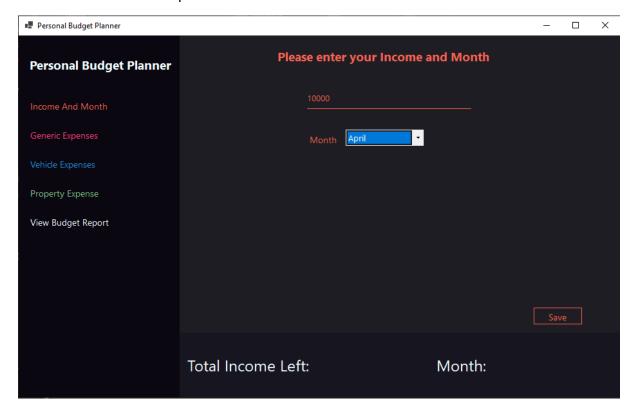
When you run the application, this screen appears



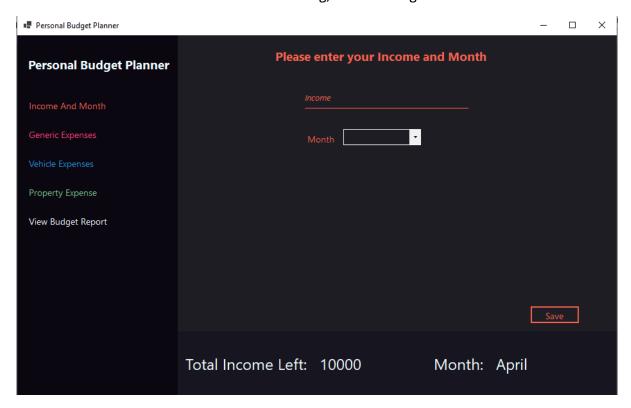
You will be required to enter a gross monthly income and a month for which the budget will be made, before accessing any other features. The following message will be displayed if you do not do this.



#### An income and month input should look similar to this



When you are satisfied with your values click "Save" and your income and month will be saved and the screen will look like the following, after clicking "Save"



If you made an error in your input, you may input the proper values and click "Save" again to overwrite the budget and save these proper values

Input proper values.

Then click "Save"

Personal Budget Planner

Please enter your Income and Month

Income And Month

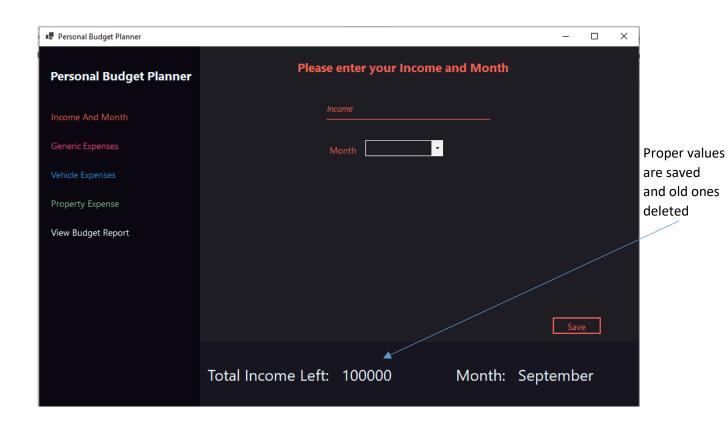
Generic Expenses

Vehicle Expenses

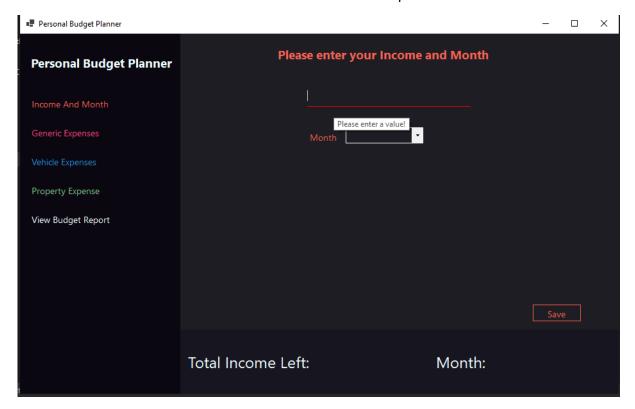
Property Expense

View Budget Report

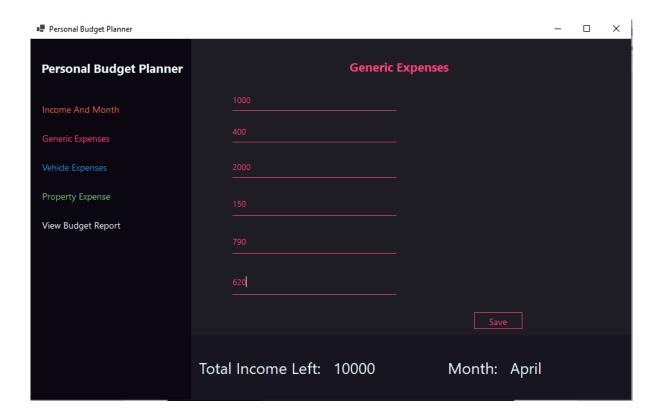
Total Income Left: 10000 Month: April

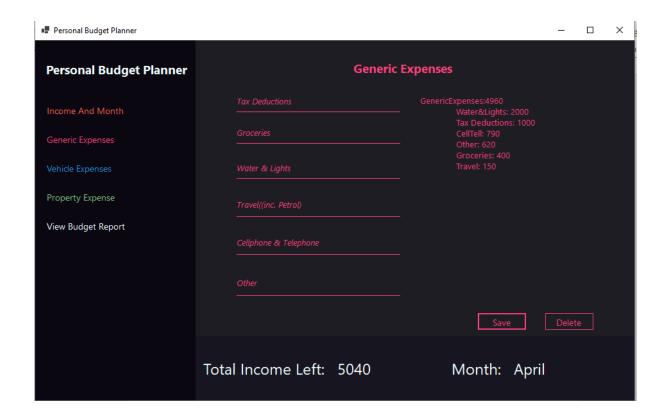


Please note. If an input is incorrect the line under the input will show red. Hover over this line for feedback on what the error is. This is true for all expenses aswell



You can now make any type of expense. Here is an example of a Generic expense input and once it is saved



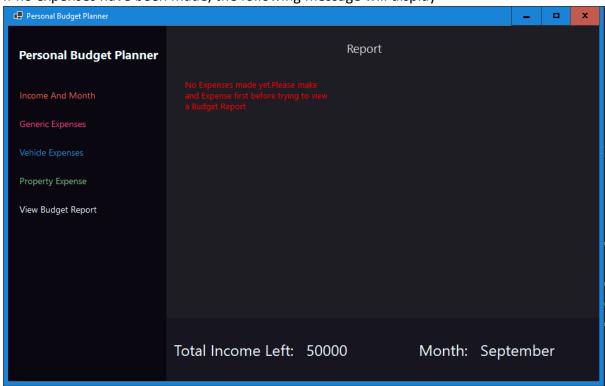


Note that once an expense is made the total Income left is updated and the "Delete" button becomes available to delete that specific expense. Also note that if you click another button and leave the Generic Expenses screen, you can click back on "Generic Expense" and it will display the latest Generic Expense saved. This is true for all expenses.

Once an expense is made you can access the "View Budget Report" to view all expenses made, in descending order. Here all expense types have been made for a budget of R100 000 in Sepember



If no expenses have been made, the following message will display



#### Changes made based on feedback

In the original version of this application (Task 1). For ": Home loan calculations and warning implemented correctly." The Home Loan calculation was incorrect. This result to multiple things being thrown off. This has now been fixed and the home Loan display the correct amount using simple interest as stipulated by the POE for task 1. For ": Available monthly money calculated correctly and displayed", the incorrect Home Loan calculation was throwing this output off. Now that it has been fixed and the money available is correctly calculated and displayed. Inheritance was slightly upside down. For "Application makes use of classes and inheritance in a logical way", The classes have been adjusted and this has been fixed. For ": The expenses are stored in an array", this was altered and the expenses stored in a list but correctly with a list handler class. The expense have now been stored correctly in a generic collection, in the form of a List, with a list handler class being made to correctly work with the list. For "Code is well structured and documented", there was some issues with not renaming component, untidy methods to clear textboxes and check null inputs and there was not enough comments to explain the logic of the application correctly. These have all been fixed. All names are appropriate, methods have been optimised and ample comments given to explain logic. For extra marks, the application has been improved using heavily advanced GUI.

## <u>Support</u>

For support, please contact <a href="mailto:20108381@vcconnect.co.za">20108381@vcconnect.co.za</a>