**Technical Design Document Template**

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**Program Description:**

This program asks the user for his or her monthly expenses and shows them the total monthly expenses that they have plus what their highest and lowest expenses were for that month.

**Functions used in the Program (list in order as they are called):**

1. **Function Name:** main

**Description:** This function holds the entirety of the program. All variables, functions and calculations.

**Parameters:** N/A

**Variables:** expenses: this is a list that holds all of the expenses, with each spot having an expense type and amount.

expenseType: This variable holds the type of monthly expense.

expenseAmount: This variable holds the cost of the expense.

totalExpenses: This variable holds the total monthly cost of all expenses.

highestExpense: This variable holds the highest expense for that month.

lowestExpense: This variable holds the lowest expense for that month.

**Lambda functions:** There are lambda function that are used with the reduce functions to calculate total expenses, highest expense, and lowest expense.

**Logical Steps:** The program creates a list to hold monthly expenses, then it asks the user for the expense type and amount and then appends it to the list. And then it uses the reduce function to calculate the total cost of all expenses as well as the highest expense and the lowest expense. Then it prints the results.

**Returns:** N/A

**Link to your repository:** <https://github.com/Philip7454/COP2373>

**Output Screenshot:**

A screen shot of a computer

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