Technical Design Document

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Program Description:

Write a program asking the user for a list of their monthly expenses. When asking the user for their expenses, ask for the type of expense and the amount

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Logical Steps:

1. Request the user to enter the type of expense and the corresponding amount

2. Store the expense types and amounts in a dictionary

3. Use the reduce function to calculate the total expense

4. Use the max function to find the highest expense

5. Use the min function to find the lowest expense

6. Display the total, highest, and the lowest expenses.

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Variables:

1. expenses: dictionary that will store the type of expense as the key and the amount as the value

2. total\_expense: the sum of all expenses calculated using the reduce function

3. highest\_expense: Tuple representing the highest expense type and its amount

4. lowest\_expense: Tuple representing the lowest expense type and its amount

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Functions:

1. function name: get\_expenses

a. Description: requests the user to enter expenses until they type “done.” It will store the type of expense and the amount in a dictionary.

b. Parameters: None

c. Returns: A dictionary containing the type of expense as keys and the amount as values

2. Function name: analyze\_expenses

a. Description: Uses the reduce, max, and min functions to calculate the total, highest, and lowest expenses

b. Parameters: expenses

c. Returns: None

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Link to repository: https://github.com/AsianInvasion00/COP2373

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