

# Technical Design Document: ZachariahKersey\_ProgrammingExercise\_3

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# Program Description: Analyzes a list of expenses to find the total, highest, and lowest expenses.

## Function: analyzeExpenses

Analyzes a list of expenses to find the total, highest, and lowest values.

Parameters:

expenses (list): A list of all user expenses.

Variables:

total (int): The total expense amount.

highest (dict): A dictionary of highest expense type and amount.

lowest (dict): A dictionary of lowest expense type and amount.

Logic:

1. Calculates the total expense amount.
2. Calculates the highest expense type and amount.
3. Calculates the lowest expense type and amount.
4. Prints the values of the total, highest, and lowest expenses.

Returns:

None

## Function: gatherExpenses

Gathers a list of all user expenses.

Parameters:

None

Variables:

expenses (list): A list of all user expenses.

expenseType (str): The expense type.

amount (int): The expense amount.

more (str): Determines if the user has additional expenses to record.

Logic:

1. Receive an expense type from the user.
2. Receive an expense amount from the user.
3. Try to convert the expense amount to a float.
4. Append the expense type and amount to the list of expenses.
5. Prompt the user if they have additional expenses to record.
6. Return the list of expenses.

Returns:

list: A list of all user expenses.

#Link to your repository: <https://github.com/Z-Money?tab=repositories>

```
"C:\Users\zrun2\OneDrive\Education\2025-2026 12TH Grade\4th COP 2373 - Melichar\.venv\Scripts\python.exe" "C:\Users\zrun2\OneDrive\Education\2025-2026 12TH Grade\4th COP 2373 - Melichar\expenses.py"
Enter expense type: Breakfast
Enter expense amount: 5.25
Add another expense? (y/n): y
Enter expense type: Lunch
Enter expense amount: 15.99
Add another expense? (y/n): y
Enter expense type: Dinner
Enter expense amount: 29.89
Add another expense? (y/n): y
Enter expense type: Movie Ticket
Enter expense amount: 2.29
Add another expense? (y/n): n

Total expenses: $53.42
Highest expense: Dinner - $29.89
Lowest expense: Movie Ticket - $2.29

Process finished with exit code 0
```