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===== Personal Fitness Tracker =====
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1. Load Data
2. Preview Data
3. Handle Missing Data (Median)
4. Data Analysis (NumPy & Pandas)
5. Log New Activity
6. Calculate Metrics
7. Filter by Activity Type
8. Bar Chart: Time per Activity
9. Line Chart: Calories Over Time
10. Pie Chart: Activity Distribution
11. Heatmap: Duration vs Calories
12. Generate Report
0. Exit

```
Enter your choice: 1
```

```
Data-set Loaded from: data/fitness_data.csv
```

```
Shape: (1000, 4)
```

```
Columns: ['date', 'activity type', 'duration', 'calories burned']
```

```
Enter your choice: 2
```

	date	activity type	duration	calories burned
0	2023-05-25	Yoga	62.0	245.6
1	2023-02-11	NaN	33.0	285.0
2	2023-11-21	Dancing	34.0	249.2
3	2024-10-13	Swimming	35.0	439.5
4	2023-09-23	Walking	49.0	211.5

```
Handling Missing Data...
```

```
Missing values before:
```

```
date          34
activity type  28
duration       30
calories burned 38
dtype: int64
```

```
Missing values after:
```

```
date          34
activity type  28
duration       0
calories burned 0
dtype: int64
```

```
Missing data handled using MEDIAN values
```

Enter your choice: 4

===== DATA ANALYSIS (NumPy & Pandas) =====

Average Daily Calories Burned: 724.04

Total Time Spent Per Activity:

activity type

Basketball 5885.0

Cycling 6339.0

Dancing 4259.0

HIIT 2216.0

Running 4523.0

Swimming 3893.0

Tennis 5377.0

Walking 3766.0

Weight Training 5389.0

Yoga 5774.0

Name: duration, dtype: float64

Weekly Calories Burned Trend:

date

2022-12-26/2023-01-01 692.6

2023-01-02/2023-01-08 4549.2

2023-01-09/2023-01-15 1960.3

2023-01-16/2023-01-22 2855.1

2023-01-23/2023-01-29 2046.1

...

2024-11-25/2024-12-01 3320.6

2024-12-02/2024-12-08 5354.1

2024-12-09/2024-12-15 3480.9

2024-12-16/2024-12-22 1812.1

2024-12-23/2024-12-29 5622.8

Freq: W-SUN, Name: calories burned, Length: 105, dtype: float64

Enter your choice: 5

Activity Type: Jumping

Duration (minutes): 120

Calories Burned: 1000

New activity logged successfully

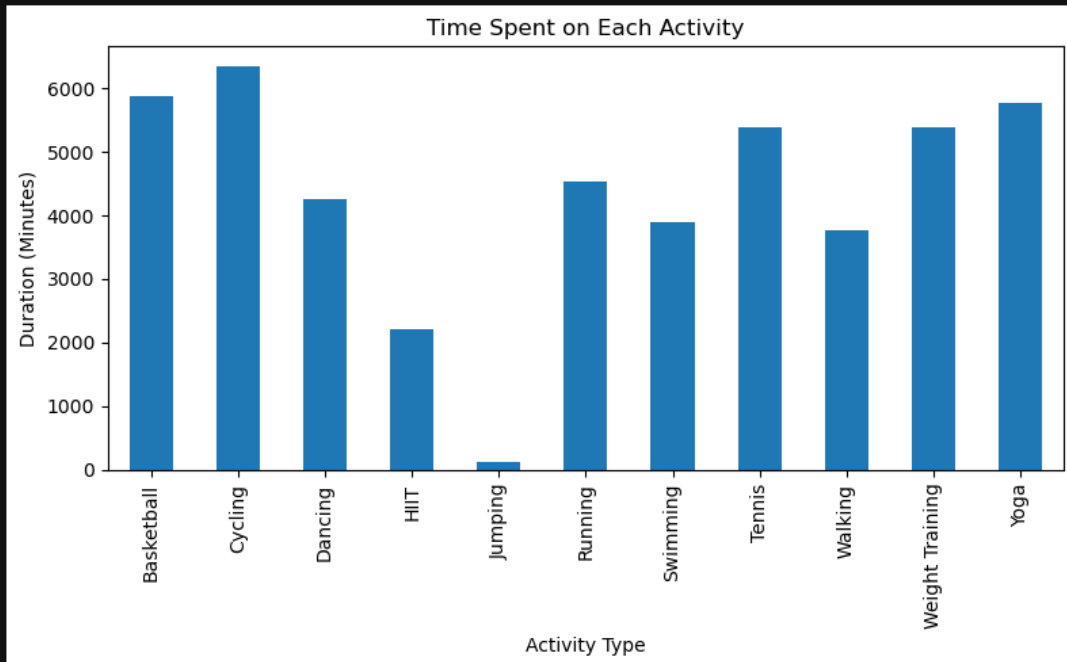
```
Enter your choice: 6
Total Calories Burned: 403658.80000000005
Average Duration: 48.862137862137864
Activity Frequency:
activity type
Running      111
Weight Training  104
Cycling      103
Basketball   102
Walking      98
Swimming     97
Yoga         96
Dancing      95
Tennis       91
HIIT         75
Jumping      1
Name: count, dtype: int64
```

```
Enter your choice: 7
Enter activity type: Running

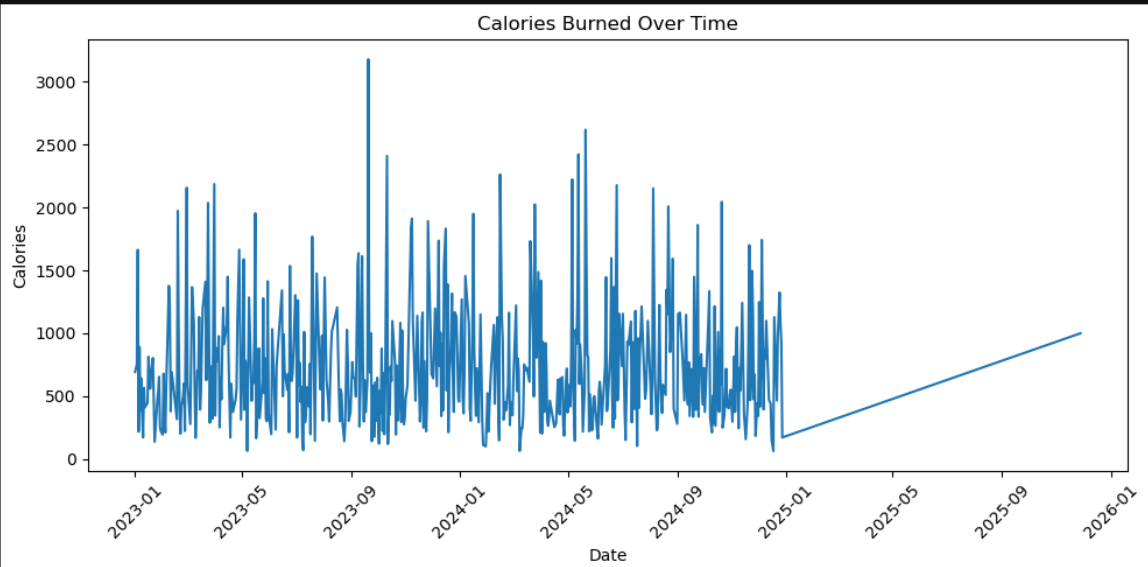
   date activity type  duration  calories burned
6  2023-08-27 00:00:00   Running    27.0         255.6
8  2024-07-20 00:00:00   Running    48.0         406.1
23 2023-07-23 00:00:00   Running    52.0         515.3
26 2023-03-21 00:00:00   Running    23.0         230.8
28 2024-04-27 00:00:00   Running    22.0         186.3
..  ...
970 2023-12-11 00:00:00   Running    34.0         341.1
971 2024-03-13 00:00:00   Running    28.0         411.9
988 2023-02-18 00:00:00   Running    44.0         530.6
989 2024-01-16 00:00:00   Running    27.0         263.1
996 2023-04-02 00:00:00   Running    53.0         474.0

[111 rows x 4 columns]
```

Enter your choice: 8

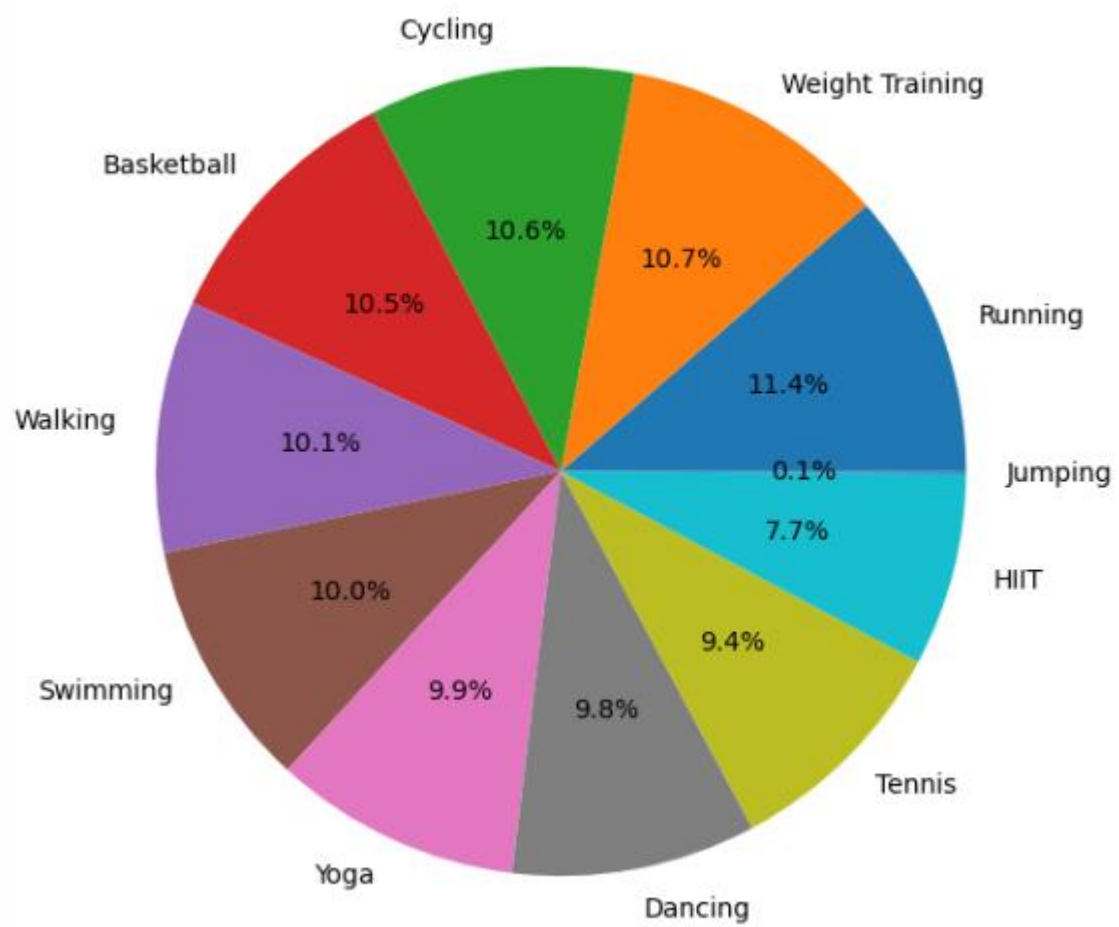


Enter your choice: 9

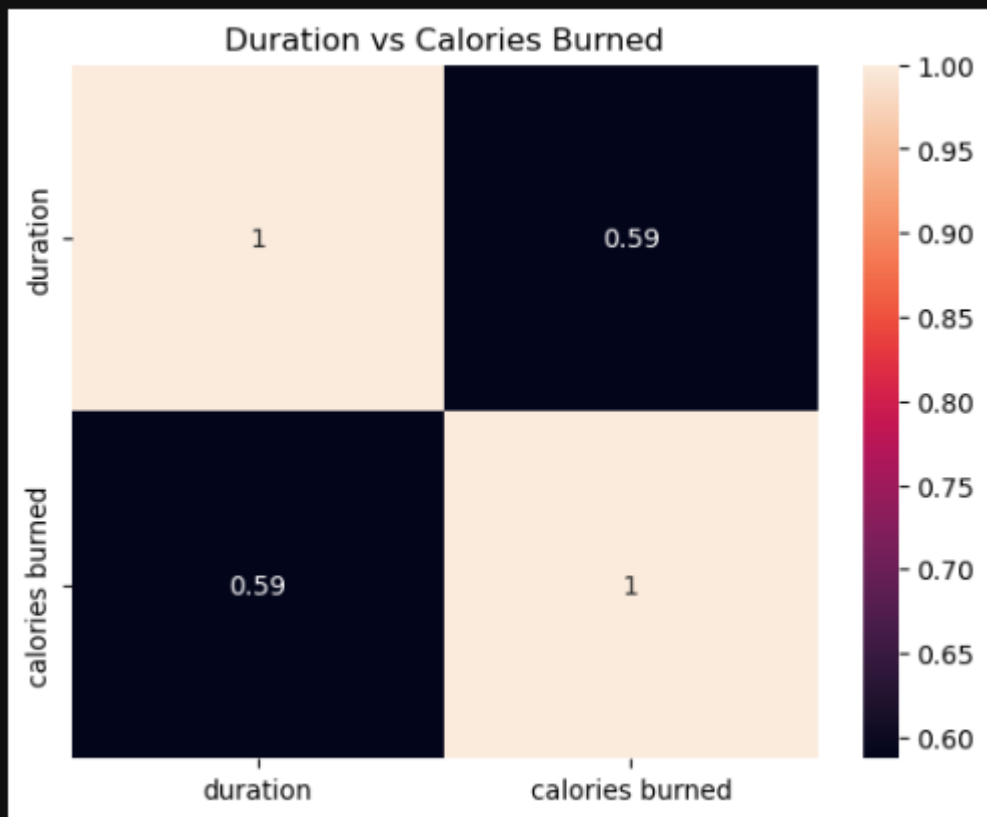


Enter your choice: 10

Activity Distribution



Enter your choice: 11



Enter your choice: 12

===== FITNESS SUMMARY REPORT =====

Total Activities: 1000

Total Calories Burned: 388393.6

Average Duration: 48.85

Most Frequent Activity:

activity type

Running 111

Name: count, dtype: int64

Enter your choice: 0

Exiting the program.....