

INPUT CODE

```
1  import csv
2  import datetime
3  import os
4
5  FILE = 'expenses.csv'
6  HEADER = ['Date', 'Amount', 'Category', 'Description']
7
8  # --- Helper Functions ---
9
10 def init_file():
11     """Initializes CSV file with header if it doesn't exist."""
12     if not os.path.exists(FILE):
13         with open(FILE, 'w', newline='') as f:
14             csv.writer(f).writerow(HEADER)
15             print(f"✅ Created new expense file: {FILE}")
16
17 def get_data():
18     """Reads all data rows from the CSV file."""
19     try:
20         with open(FILE, 'r', newline='') as f:
21             # reader converts each line into a list of strings
22             return list(csv.reader(f))[1:] # [1:] skips the header
23     except FileNotFoundError:
24         print(f"Error: File '{FILE}' not found.")
25         return []
26
27 # --- Main Application ---
28
29 def main():
30     init_file()
31
32     while True:
33         print("\n💡 Expense Tracker\n1. Add\n2. View\n3. Summary\n4. Exit")
34         choice = input("Enter choice: ")
35
36         if choice == '1':
37             try:
38                 amount = float(input("Amount ($): "))
39                 category = input("Category: ")
40                 description = input("Description: ")
41                 date = datetime.datetime.now().strftime('%Y-%m-%d')
42
43                 new_row = [date, amount, category, description]
44
45                 with open(FILE, 'a', newline='') as f:
46                     csv.writer(f).writerow(new_row)
47                     print("Expense added.")
48             except ValueError:
49                 print("Invalid amount. Please enter a number.")
50
51         elif choice == '2':
52             data = get_data()
53             if not data:
54                 print("No expenses recorded.")
55                 continue
56
57             print("\n--- All Expenses ---")
58             for row in data:
59                 print(f>Date: {row[0]}, Amount: ${float(row[1]):.2f}, Category: {row[2]}, Desc: {row[3]}")
60
61
```

```

55         print("No expenses recorded.")
56         continue
57
58     print("\n--- All Expenses ---")
59     for row in data:
60         print(f>Date: {row[0]}, Amount: ${float(row[1]):.2f}, Category: {row[2]}, Desc: {row[3]}")
61
62     elif choice == '3':
63         data = get_data()
64         if not data:
65             print("No expenses recorded for summary.")
66             continue
67
68         summary = {}
69         for _, amount_str, category, _ in data:
70             try:
71                 amount = float(amount_str)
72                 summary[category] = summary.get(category, 0) + amount
73             except ValueError:
74                 continue # Skip invalid entries
75
76         print("\n--- Category Summary ---")
77         for cat, total in summary.items():
78             print(f>{cat}: ${total:.2f}")
79
80     elif choice == '4':
81         print("Goodbye! 🍷")
82         break
83
84     else:
85         print("Invalid choice.")
86
87 if __name__ == "__main__":
88     main()

```

OUTPUTCODE

Invalid choice.

🔥 Expense Tracker

1. Add
2. View
3. Summary
4. Exit

Enter choice: 1

Amount (\$): 547

Category: petrol

Description: going sehore to bhopal

Expense added.

🔥 Expense Tracker

1. Add
2. View
3. Summary
4. Exit

Enter choice: 1

Amount (\$): 6900

Category: shopping

Description: buy cloth and phone for my friend

Expense added.

🔥 Expense Tracker

1. Add
2. View
3. Summary
4. Exit

Enter choice: 1

Amount (\$): 7666

Category: travel expanses

Description: buy something and rent

Expense added.

🔥 Expense Tracker

1. Add
2. View
3. Summary
4. Exit

Enter choice: 2

--- All Expenses ---

Date: 2025-11-23, Amount: \$547.00, Category: petrol, Desc: going sehore to bhopal

Date: 2025-11-23, Amount: \$6900.00, Category: shopping, Desc: buy cloth and phone for my friend

Date: 2025-11-23, Amount: \$7666.00, Category: travel expanses, Desc: buy something and rent