Python Expense Tracker - Source Code

```
import csv
import os

# File name to store expenses
FILE_NAME = "expenses.csv"

# Function to initialize the CSV file if it doesn't exist
def initialize_file():
    if not os.path.exists(FILE_NAME):
        with open(FILE_NAME, mode="w", newline="") as file:
            writer = csv.writer(file)
            writer.writerow(["Description", "Amount"])  # header row

# Function to add a new expense
def add_expense():
    description = input("Enter expense description: ")
    amount = input("Enter expense amount: ")
    try:
        amount = float(amount)
        with open(FILE_NAME, mode="a", newline="") as file:
            writer = csv.writer(file)
            writer.writerow([description, amount])
        print("■ Expense added successfully!")
    except ValueError:
        print("■ Invalid amount! Please enter a number.")

# Function to view all expenses
def view_expenses():
    if not os.path.exists(FILE_NAME):
        print("No expenses found.")
        return
    with open(FILE_NAME, mode="r") as file:
        reader = csv.reader(file)
        next(reader)  # skip header
        print("\n■ All Expenses:")
        total = 0
        for row in reader:
            if len(row) == 2:
                print(f"{row[0]} - ■{row[1]}")
                total += float(row[1])
        print(f"\n■ Total Expenses: ■{total}")

# Function to calculate and view total spent
def view_total():
    if not os.path.exists(FILE_NAME):
        print("No expenses found.")
        return
    total = 0
    with open(FILE_NAME, mode="r") as file:
        reader = csv.reader(file)
        next(reader)
        for row in reader:
            if len(row) == 2:
                total += float(row[1])
    print(f"\n■ Total amount spent: ■{total}")

# Main menu
def main():
    initialize_file()
    while True:
        print("\n===== Expense Tracker =====")
        print("1. Add Expense")
        print("2. View All Expenses")
        print("3. View Total Spent")
        print("4. Exit")

        choice = input("Enter your choice (1-4): ")

        if choice == "1":
            add_expense()
        elif choice == "2":
            view_expenses()
        elif choice == "3":
```

```
            view_total()
        elif choice == "4":
            print("■ Exiting... Have a great day!")
            break
        else:
            print("■ Invalid choice! Please try again.")

# Run the program
if __name__ == "__main__":
    main()
```