import csv

import os

def load\_expenses(filename="expenses.csv"):

expenses = []

if os.path.exists(filename):

with open(filename, "r") as file:

reader = csv.DictReader(file)

for row in reader:

row["amount"] = float(row["amount"])

expenses.append(row)

return expenses

def save\_expenses(expenses, filename="expenses.csv"):

with open(filename, "w", newline="") as file:

fieldnames = ["date", "category", "amount", "description"]

writer = csv.DictWriter(file, fieldnames=fieldnames)

writer.writeheader()

writer.writerows(expenses)

def add\_expense(expenses):

date = input("Enter the date (YYYY-MM-DD): ")

category = input("Enter the category (e.g., Food, Travel): ")

amount = float(input("Enter the amount: "))

description = input("Enter a brief description: ")

expenses.append({"date": date, "category": category, "amount": amount, "description": description})

print("Expense added successfully!\n")

def view\_expenses(expenses):

if not expenses:

print("No expenses recorded.")

return

print("\nRecorded Expenses:")

for expense in expenses:

print(f"Date: {expense['date']}, Category: {expense['category']}, Amount: {expense['amount']}, Description: {expense['description']}")

print()

def set\_budget():

return float(input("Enter your monthly budget: "))

def track\_budget(expenses, budget):

total\_spent = sum(expense["amount"] for expense in expenses)

remaining = budget - total\_spent

print(f"Total spent: {total\_spent}")

if remaining < 0:

print("Warning: You have exceeded your budget!\n")

else:

print(f"You have {remaining} left for the month.\n")

def main():

expenses = load\_expenses()

budget = 0.0

while True:

print("\nPersonal Expense Tracker")

print("1. Add Expense")

print("2. View Expenses")

print("3. Set Budget")

print("4. Track Budget")

print("5. Save and Exit")

choice = input("Choose an option: ")

if choice == "1":

add\_expense(expenses)

elif choice == "2":

view\_expenses(expenses)

elif choice == "3":

budget = set\_budget()

elif choice == "4":

track\_budget(expenses, budget)

elif choice == "5":

save\_expenses(expenses)

print("Expenses saved. Exiting program.")

break

else:

print("Invalid choice. Please select a valid option.")

if \_\_name\_\_ == "\_\_main\_\_":

main()