**Week 3 source**

import json

def load\_data():

try:

with open('expenses.json', 'r') as file:

data = json.load(file)

except (FileNotFoundError, json.decoder.JSONDecodeError):

data = {}

return data

def save\_data(data):

with open('expenses.json', 'w') as file:

json.dump(data, file, indent=2)

def add\_expense(data, date, category, amount):

if date not in data:

data[date] = {}

if category not in data[date]:

data[date][category] = 0

data[date][category] += amount

save\_data(data)

def show\_summary(data):

print("\nExpense Summary:")

for date, categories in data.items():

print(f"\nDate: {date}")

for category, amount in categories.items():

print(f"{category}: ${amount}")

def main():

expenses\_data = load\_data()

while True:

print("\n1. Add Expense\n2. Show Expense Summary\n3. Exit")

choice = input("Enter your choice (1/2/3): ")

if choice == '1':

try:

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

category = input("Enter the expense category: ")

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

add\_expense(expenses\_data, date, category, amount)

print("Expense added successfully!")

except ValueError:

print("Invalid input. Please enter a valid amount.")

elif choice == '2':

show\_summary(expenses\_data)

elif choice == '3':

print("Exiting the program.")

break

else:

print("Invalid choice. Please enter 1, 2, or 3.")

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

main()