TASK-02

PERSONAL BUDGET TRACKER

## PROGRAM:-

import sqlite3

import datetime

# Function to create the database

def create\_database():

conn = sqlite3.connect('budget\_tracker.db')

c = conn.cursor()

c.execute('''CREATE TABLE IF NOT EXISTS transactions (

id INTEGER PRIMARY KEY,

type TEXT NOT NULL,

amount REAL NOT NULL,

date DATE NOT NULL

)''')

conn.commit()

conn.close()

# Function to add a transaction

def add\_transaction(type, amount, date):

conn = sqlite3.connect('budget\_tracker.db')

c = conn.cursor()

c.execute("INSERT INTO transactions (type, amount, date) VALUES (?, ?, ?)",

(type, amount, date))

conn.commit()

conn.close()

# Function to calculate total income and expenses

def calculate\_budget():

conn = sqlite3.connect('budget\_tracker.db')

c = conn.cursor()

c.execute("SELECT type, SUM(amount) FROM transactions GROUP BY type")

rows = c.fetchall()

conn.close()

budget = {'Income': 0, 'Expense': 0}

for row in rows:

budget[row[0]] = row[1]

return budget

# Function to analyze expenses

def analyze\_expenses():

conn = sqlite3.connect('budget\_tracker.db')

c = conn.cursor()

c.execute("SELECT type, SUM(amount) FROM transactions WHERE type = 'Expense' GROUP BY type")

expense = c.fetchone()[1]

conn.close()

return expense

# Main function

def main():

create\_database()

while True:

print("\n1. Add Income")

print("2. Add Expense")

print("3. View Budget")

print("4. Analyze Expenses")

print("5. Exit")

choice = input("Enter your choice: ")

if choice == '1':

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

date = datetime.date.today()

add\_transaction('Income', amount, date)

print("Income added successfully!")

elif choice == '2':

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

date = datetime.date.today()

add\_transaction('Expense', amount, date)

print("Expense added successfully!")

elif choice == '3':

budget = calculate\_budget()

print("\n--- Budget Summary ---")

print(f"Total Income: {budget['Income']}")

print(f"Total Expense: {budget['Expense']}")

print(f"Net Income: {budget['Income'] - budget['Expense']}")

elif choice == '4':

expense = analyze\_expenses()

print(f"\nTotal Expense: {expense}")

elif choice == '5':

print("Exiting program...")

break

else:

print("Invalid choice!")

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

main()

## OUTPUT:-



