import sqlite3  
import datetime  
from unicodedata import category  
  
  
def connect\_db():  
 Conn =sqlite3.connect("expense.db")  
 cursor = conn.cursor ()  
 cursor.execute('''CREATE TABLE IF NOT EXISTS expenses(  
 id INTEGER PRIMARY KEY AUTOINCREMENT,  
 amount REAL,  
 category TEXT,  
 description TEXT,  
 date TEXT)''')  
 conn.commit()  
 return (conn,cursor)  
  
def add\_expense(conn, cursor):  
 amount = float(input("Enter amount: "))  
 category = input("Enter category (Food, Transport, Bills, etc.): ")  
 description = input ("Enter description: ")  
 date = datetime.date.today()  
  
 cursor.execute("INSERT INTO expenses (amount, category, description")  
 (amount,category,description, date)  
  
 conn.commit()  
 print("Expense added successfully\n")  
  
def view\_expenses(cursor):  
 cursor.execute("SELECT\* FROM expenses")  
 expenses = cursor.fetchall()  
 if not expenses:  
 print("No expenses found.\n")  
 return  
 print("ID | Amount | Category | Description | Date")  
 print("-" \* 50)  
 for expense in expenses :  
 print(f"{expense[0]} | {expense[1]} | {expense[2]} | {expense[3]}")  
 print("\n")  
  
  
def update\_expense(conn,cursor):  
 view\_expenses(cursor)  
 exp\_id = int(input("Enter expense ID to update: "))  
 amount = float(input("Enter new amount: "))  
 category = input("Enter new category: ")  
 description = input("Enter new description: ")  
  
 cursor.execute("UPDATE expenses SET amount= ?, category=?, description=?")  
 (amount, category, description, exp\_id)  
  
 conn.commit()  
 print("Expense updated successfully!\n")  
  
def delete\_expense(conn, cursor):  
 view\_expenses(cursor)  
 exp\_id = int(input("Enter expense ID to delete: "))  
 cursor.execute("DELETE FROM expenses WHERE id=?", (exp\_id))  
 conn.commit()  
 print("Expense deleted successfully!\n")  
  
def total\_expenses(cursor):  
 cursor.execute("SELECT SUM(amount) FROM expenses")  
 total = cursor.fetchone()[0]  
 print(f"Total expenses: {total}\n")  
  
def main():  
 conn, cursor = connect\_db()  
 while True:  
 print("Expense Tracker Menu")  
 print("1. Add Expense")  
 print("2. View Expenses")  
 print("3.Update Expenses")  
 print("4. Delete Expenses")  
 print("5. Total Expenses")  
 print("6. Exit")  
  
 choice = input("Enter choise: ")  
 if choice == "1":  
 add\_expense(conn,cursor)  
 elif choice == "2":  
 view\_expenses(cursor)  
 elif choice == "3":  
 update\_expense(conn, cursor)  
 elif choice =="4":  
 delete\_expense(conn, cursor)  
 elif choice == "5":  
 total\_expenses(cursor)  
 elif choice == "6":  
 print("Exiting... Goodbye!")  
 break  
 else:  
 print("Invalid choice, please try again.\n")  
 conn.close()  
main()