```
import sqlite3
import matplotlib.pyplot as plt
from datetime import datetime
# Database setup
def setup_database():
   conn = sqlite3.connect('workouts.db')
   cursor = conn.cursor()
   cursor.execute(''
       CREATE TABLE IF NOT EXISTS workouts (
           id INTEGER PRIMARY KEY AUTOINCREMENT,
            date TEXT NOT NULL,
            exercise TEXT NOT NULL,
            sets INTEGER NOT NULL,
            reps INTEGER NOT NULL,
            weight REAL NOT NULL
   conn.commit()
    conn.close()
# Add a workout
def add_workout():
   date = input("Enter the date (YYYY-MM-DD): ")
    exercise = input("Enter the exercise name: ")
    sets = int(input("Enter the number of sets: "))
   reps = int(input("Enter the number of reps: "))
    weight = float(input("Enter the weight (in kg/lbs): "))
   conn = sqlite3.connect('workouts.db')
   cursor = conn.cursor()
    cursor.execute('
       INSERT INTO workouts (date, exercise, sets, reps, weight)
       VALUES (?, ?, ?, ?, ?)
    ''', (date, exercise, sets, reps, weight))
    conn.commit()
   conn.close()
    print("Workout added successfully!")
# View workout history
def view_history():
   conn = sqlite3.connect('workouts.db')
   cursor = conn.cursor()
   cursor.execute('SELECT * FROM workouts')
   rows = cursor.fetchall()
   conn.close()
   if not rows:
        print("No workout history found.")
        return
    print("\nWorkout History:")
    for row in rows:
       print(f"ID: \{row[0]\}, Date: \{row[1]\}, Exercise: \{row[2]\}, Sets: \{row[3]\}, Reps: \{row[4]\}, Weight: \{row[5]\}")
# Generate progress report
def generate_report():
    exercise = input("Enter the exercise name to generate a report: ")
    conn = sqlite3.connect('workouts.db')
   cursor = conn.cursor()
    cursor.execute('
       SELECT date, weight FROM workouts WHERE exercise = ? ORDER BY date
    ''', (exercise,))
   data = cursor.fetchall()
   conn.close()
    if not data:
       print(f"No data found for exercise: {exercise}")
        return
    dates = [row[0] for row in data]
    weights = [row[1] for row in data]
    plt.plot(dates, weights, marker='o')
    plt.xlabel('Date')
    plt.ylabel('Weight Lifted')
    plt.title(f'Progress for {exercise}')
    plt.grid(True)
   plt.show()
```

```
# Main menu
def main_menu():
    while True:
       print("\nWorkout Progress Tracker")
       print("1. Add Workout")
       print("2. View Workout History")
       print("3. Generate Progress Report")
       print("4. Exit")
       choice = input("Enter your choice: ")
       if choice == '1':
           try:
               add_workout()
            except ValueError:
               print("Invalid input! Please enter numeric values for sets, reps, and weight.")
        elif choice == '2':
           view_history()
        elif choice == '3':
           generate_report()
        elif choice == '4':
           print("Exiting the application. Goodbye!")
        else:
           print("Invalid choice! Please try again.")
# Entry point
if __name__ == "__main__":
    setup_database()
    main_menu()
```

...

```
Workout Progress Tracker
1. Add Workout
2. View Workout History
3. Generate Progress Report
4. Exit
Enter your choice: 1
Enter the date (YYYY-MM-DD): 20000813
Enter the exercise name: pushup
Enter the number of sets: 5
Enter the number of reps: 3
Enter the weight (in kg/lbs): 78
Workout added successfully!
Workout Progress Tracker
1. Add Workout
2. View Workout History
3. Generate Progress Report
4. Exit
Enter your choice: 2
Workout History:
ID: 1, Date: 20000813, Exercise: pushup, Sets: 5, Reps: 3, Weight: 78.0
Workout Progress Tracker
1. Add Workout
2. View Workout History
3. Generate Progress Report
4. Exit
Enter your choice: 3
Enter the exercise name to generate a report: pushup
```