1. Implement the below question in C++.

   A table gives a list of car models and the number of units sold in each type in a specified period. Write a program to store this table in a suitable container and to display interactively the total value of a particular model sold, given the unit-cost of that model.

2. Implement the below question in Prolog:
   - **Domains**
     Disease -> indication = symbol
     Patient -> name = string

     Patient(P_Id,name,address(building_name,city,zipcode),[treatment(doctor_code, disease]).

   - **Predicates**
     symptom(name,indication)
     hypothesis(name,disease)
     response(char)
     Where,
     - ➢ indication = fever, rash, headache, runny_nose, conjunctivitis, cough, body_ache, chills, sore_throat, sneezing
     - ➢ name= Patient's name
     - ➢ disease are as follow:

     1. **Flu** if patient has fever, headache, body_ache, conjunctivitis, chills, sore_throat, runny_nose, cough
     2. **Common cold** if patient has headache, sneezing, sore_throat, runny_nose, chills
     3. **Chicken pox** if patient has fever, chills, body_ache, rash
     4. **Measles** if patient has cough, sneezing, runny_nose

   - **Clauses**

     Example:

     symptom(Patient’s name,fever) :-

     write(\"Does \",Patient,\" have a fever (y/n) ?\"),

     response(Reply),

Reply=\'y\'.

- ☐ For 3 patients, enter symptoms. Make sure every patient should be having more than one disease for data purposes.
- ☐ Enter that 3 patients details (P_Id,Name, Address, treatment)

Find the results for following questions using PROLOG program:

1. Find the total number of diseases for each patient.
2. Find the name and zip code of each patient.
3. Write P_Id and name of all patients staying in **Delhi**.
4. List name of all patients treated by doctor **D1**.
5. List roll no. of all patients suffering from **Common cold**
6. List building_name and city_code for all patients in the given format (format: [(building_name, citycode)]).
7. List all doctors for each given patient.