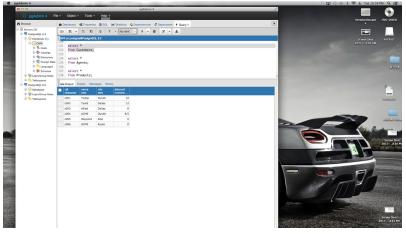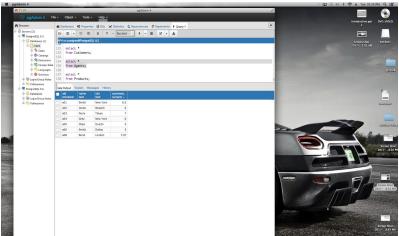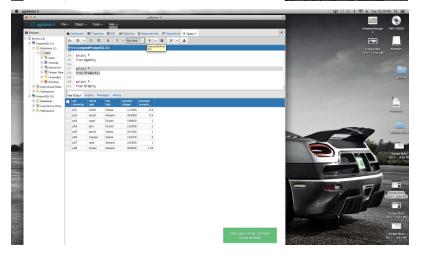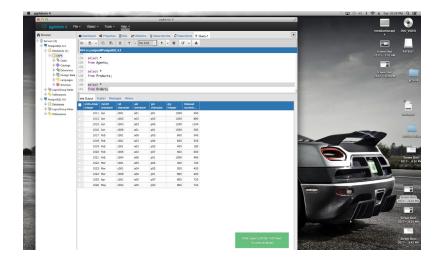Name- Natnael Mengistu

CMPT 308

 Lab2

1)

2) Primary key - is the columns a database designer uses to maintain unique identification of each row in a database.
Example - Employee ID , SSN

Candidate Key- are individual columns in a table that uniquely identifies a record.
- is a minimal super key meaning none of its proper subsets identify a super key

Super key- any attribute or combination of attributes that uniquely identify a table is called a super key.

3) Data types are classifications of data that the database designer intends to use in the record (table). For example, if you are entering a numeric value, that field needs to have a data type indicating what type of numeric value is being entered.

Example :-   CREATE TABLE employees
            Id   **INT** PRIMARY KEY ,
            First Name **VARCHAR(25)** ,
            Last Name   **VARCHAR (25)**,
            Date **TIMESTAMP**
);
On this employees table we have INT, VARCHAR and TIMESTAMP data types.

4)
   a) The first normal form rule :- The first normal rule sets the basic rules to build an organized database. These rule contains three main rules that are used to define the required data items ,prevent repetition and ensure that there is a primary key for each table that we created.
   b) The access rows by content only rule :- we access rows by content not by row and column as the third row or fourth row because it disallows pointers to row. You cannot access rows by pointer

or the number of rows. An example from the CAP4 database accessing "OrdNumber1015" instead of accessing the row by saying "Row5".

c) The all rows must be unique rule :- In every row, some column must contain a unique value. If no single column has this property, the values of some group of columns taken as a whole must be different in every row. Two tuples in a relation cannot be identical in all columns at once.