Jaypee Institute of Information Technology

Database Systems & Web Lab (15B11CI372)

Lab Test-1

INSTRUCTIONS

1. Test has two sets Set A and Set B. **Set A for Even Roll Nos. and Set B for Odd Roll Nos.**
2. Paste the snapshots of the queries, HTML and JavaScript code in a word file along with their outputs and submit in following format SET name_Rollno_Name_Batch like Set A_991913203_Mohit_F2
3. You have to submit your test on respective classrooms in an assignment created for test.
4. Test submission time is upto 2:15PM after that submitted test won't be considered.
5. Test is having Two questions with of 10 marks each

SET-A (Even Roll Nos)

Q1. [CO1]Following is the database of Cars24 store where sale and purchase of 4-wheeler is done

Vehicle(ID: integer, Name: string, PrevOwner:string, DateofStorage: date, Type:string)

Where, ID and name are vehicle ID and name, PrevOwner is previous owner of the vehicle, Date of storage means date at which vehicle came in to CARS24 store, Type is car, bus, bike etc.

Buyer(BID: integer, Name: string, Address: string, othervehicles: integer)

Where BID and Name and Address is Buyer ID and name and Address respectively, other vehicles means number of other vehicles the owner previously having at home.

Purchase (VID:integer, BID:integer, PurchaseDate:date, ModelNo: integer)

Where, VID is vehicle ID, BID is buyer ID, PurchaseDate is date of purchase and ModelNo is Model number of vehicle.

Write and execute the following queries in MySQL

(a) List the types of cars who have not had any Buyer, i.e., not purchased by any Buyer.
(b) For each Buyer who has made at least two purchases, list their names and addresses.
(c) List the name of the Buyer who has purchased every type of vehicle
(d) For each vehicle type, list the vehicle type and total number of purchases on 14 September 2021

Q2. [CO2] Design a user registration form with text input fields First name, Last name, Password and Adhaar Card Number using HTML and JavaScript. The form should have Submit and Reset Button. Write JavaScript code to perform following validations:

1. All Fields are mandatory
2. Person first name and last name should not contain anything except small and upper case letters or spaces and should have minimum 3 and maximum 30 Characters.
3. Password ... ensure it shall contain at least 2 small, 1 upper case, 2 digit and 2 special characters..
4. Adhaar Card number. Its format must be valid i.e. xxxx-xxxx-xxxx i.e. 12 digits with dash at right place.

Reset button should clear all the fields. When user submit the form, it shall be submitted only if all input data as valid as per above described rules. In case of invalid, show alert message. Please note, form should not be submitted if any field contains invalid data.

SET-B (ODD Roll Nos)

Q1. [CO1]Consider following relations

Census(StateID int,CountryID int, population_count_statewise int)
Country(CountryID int, Country_name varchar)
State(StateID int, Statename varchar)
City(CityID int, cityname varchar, StateID)
Write and execute the following queries in MySQL

a) Find the names of country with maximum population
b) Find pairs of states of same country.
   PS: the pairs should not be the same for example: if 1,2 has come then 2, 1 should not come.
c) Find the names of states of India whose population is greater than 50% of the total population of India

d) Find the names of state which has more than 5 cities.

Q2. [CO2] Design a user registration form with text input fields First name, Last name, Date of Birth, Email ID and Mobile Number using HTML and JavaScript. The form should have Submit and Reset Button. Write JavaScript code to perform following validations:

1. All the fields are mandatory.

2. First name and Last name should not contain any special characters and of minimum 3 character and maximum 50 characters.

3. The format of date of birth should be mm/dd/yyyy.
4. Mobile number should be of format 91xxxxxxxxxx i.e. 12 digits. And should contain numbers only.

Reset button should clear all the fields. When user submit the form, it shall be submitted only if all input data as valid as per above described rules. In case of invalid, show alert message. Please note, form should not be submitted if any field contains invalid data