

## Assingment-1

Q.1 Write a SQL statement to create a simple table countries including columns country\_id, country\_name and region\_id which already exist.

```
cdac=# create table if not exists countries(country_id integer, country_name varchar(50), region_id varchar(20));
CREATE TABLE
cdac=# insert into countries values(142, 'India', 'IN'), (13, 'America', 'AM'), (32, 'Chad', 'TW');
INSERT 0 3
cdac=# select* from countries;
 country_id | country_name | region_id
-----+-----+-----
        142 | India       | IN
         13 | America    | AM
         32 | Chad       | TW
(3 rows)

cdac=#
```

\*\*\*\*\*Q2 is created by dropping existing table countries.

Q.2 Write a SQL statement to create a simple table countries including columns country\_id, country\_name and region\_id.

```
cdac=# create table countries(country_id integer, country_name varchar(50), region_id varchar(20));
CREATE TABLE
cdac=# insert into countries values(142, 'India', 'IN'), (13, 'America', 'AM'), (32, 'Chad', 'TW');
INSERT 0 3
cdac=# select *from countries;
 country_id | country_name | region_id
-----+-----+-----
        142 | India       | IN
         13 | America    | AM
         32 | Chad       | TW
(3 rows)
```

\*\*\*\*\* Difference between create table if not exist and create table is summarised below:

```
cdac=# create table if not exists countries(country_id integer, country_name varchar(50), region_id varchar(20));
NOTICE: relation "countries" already exists, skipping ✓
CREATE TABLE ✓
cdac=# create table countries(country_id integer, country_name varchar(50), region_id varchar(20));
✓ ERROR: relation "countries" already exists
cdac=#
```

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Q3. Write a SQL statement to create the structure of a table dup\_countries similar to countries.

```
cdac=# create table dup_countries as table countries WITH NO DATA;
CREATE TABLE AS
cdac=# select *from dup_countries;
 country_id | country_name | region_id
-----+-----+-----
(0 rows)
```

Q.4 Write a SQL statement to create a duplicate copy of countries table including structure and data by name dup\_countries.

```
cdac=# create table dup_countries as table countries WITH DATA;
SELECT 3
cdac=# select *from dup_countries;
 country_id | country_name | region_id
-----+-----+-----
          142 | India        | IN
           13 | America     | AM
           32 | Chad        | TW
(3 rows)
```

Q.5 Write a SQL statement to create a table named countries, including country\_id, country\_name and region\_id and make sure that no duplicate data against column country\_id will be allowed at the time of insertion.

\*\*\* Using NOT NULL and UNIQUE

```
cdac=# create table countries(country_id integer not null unique,country_name varchar(50),region_id varchar(20));
CREATE TABLE
cdac=# select * from countries;
 country_id | country_name | region_id 
-----+-----+-----
(0 rows)
```

```
cdac=# insert into countries values(1,'India','IN'),(1,'America','AM');
ERROR: duplicate key value violates unique constraint "countries_country_id_key"
DETAIL: Key (country_id)=(1) already exists.
```

\*\*\*\*\* Using primary key

```
cdac=# create table countries(country_id integer,country_name varchar(50),region_id varchar(20),primary key(country_id));
CREATE TABLE
cdac=# select * from countries;
 country_id | country_name | region_id 
-----+-----+-----
(0 rows)
```

```
cdac=# insert into countries values(1,'India','IN'),(1,'America','AM');
ERROR: duplicate key value violates unique constraint "countries_pkey"
DETAIL: Key (country_id)=(1) already exists.
```