### ****# Question – 1: - Write a program in Python to produce Star triangle.****

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**Answer:** n = 5

for i in range(n):

    for j in range (i,n,2):

        print(' ',end=' ')

    for j in range(i+1):

        if i%2==0:

            print("#",end=' ')

    print( )

**# Question - 2: - Iterate the below object to get the specified output.**

**obj = {**

**'customer\_details' : { 'id' : '1', 'name' : 'customer-1' },**

**'customer\_users' : [**

**{ 'user\_id' : 1, 'user\_name' : 'user-1' },**

**{ 'user\_id' : 2, 'user\_name' : 'user-2' },**

**]**

**};**

**# Output:-**

**customer details**

**Customer Id : 1**

**Customer Name : customer-1**

**User Id User Name**

**1 user-1**

**2 user-2**

**# Question - 3: - Iterate the below array of objects to get the specified output.**

**arrRec = [**

**{'customer\_id' : 1,'customer\_name' :'customer-1','user\_id' :1,'user\_name' :'user-1' },**

**{'customer\_id' : 1,'customer\_name' :'customer-1','user\_id' :2,'user\_name' :'user-2' },**

**{'customer\_id' : 1,'customer\_name' :'customer-1','user\_id' :3,'user\_name' :'user-3' },**

**{'customer\_id' : 2,'customer\_name' :'customer-2','user\_id' :4,'user\_name' :'user-4' },**

**{'customer\_id' : 2,'customer\_name' :'customer-2','user\_id' :5,'user\_name' :'user-5' },**

**{'customer\_id' : 2,'customer\_name' :'customer-2','user\_id' :6,'user\_name' :'user-6' }**

**];**

**# Output:-**

**arrObj = [**

**{**

**‘customer\_details’ : {**

**‘customer\_id’ : 1, ‘customer\_name’ :’customer-1’**

**},**

**‘user\_details’ : [**

**{‘user\_id’ :1, ‘user\_name’ :’user-1’ },**

**{‘user\_id’ :2, ‘user\_name’ :’user-2’ },**

**{‘user\_id’ :3, ‘user\_name’ :’user-3’ }**

**]**

**},**

**{**

**‘customer\_details’ : {**

**‘customer\_id’ : 2, ‘customer\_name’ :’customer-2’**

**},**

**‘user\_details’ : [**

**{‘user\_id’ : 4, ‘user\_name’ :’user-4’ },**

**{‘user\_id’ :5, ‘user\_name’ :’user-5’ },**

**{‘user\_id’ :6, ‘user\_name’ :’user-6’ }**

**]**

**}**

**];**

**# Question – 4:- How to delete duplicate rows from the table through SQL?**

Let’s assume the following table as our dataset:

|  |  |  |
| --- | --- | --- |
| **Table Name :** **employees** | | |
| **ID** | **Name** | **Age** |
| **1** | **A** | **21** |
| **2** | **B** | **23** |
| **2** | **B** | **23** |
| **4** | **D** | **22** |
| **5** | **E** | **25** |
| **6** | **G** | **26** |
| **5** | **E** | **25** |

**# Desired Output: -**

|  |  |  |
| --- | --- | --- |
| **Table Name :** **employees** | | |
| **ID** | **Name** | **Age** |
| **1** | **A** | **21** |
| **4** | **D** | **22** |
| **6** | **G** | **26** |

**Answer:** select id,count(\*) from employees groupby id having count(\*)>1;

**# Question – 5:- Write a SQL to get the highest employee salary in each department.**

Let’s assume the following table as our dataset:

|  |  |  |  |
| --- | --- | --- | --- |
| **Table Name : employees** | | | |
| **emp\_id** | **emp\_name** | **department\_id** | **salary** |
| **1** | **Ashok** | **1** | **17,000** |
| **2** | **Rahul** | **1** | **15,000** |
| **3** | **Venkat** | **1** | **20,000** |
| **4** | **Reddy** | **2** | **10,000** |
| **5** | **Johan** | **2** | **12,000** |
| **6** | **Riya** | **2** | **9,000** |

|  |  |
| --- | --- |
| **Table Name : departments** |  |
| **department\_id** | **department\_name** |
| **1** | **IT** |
| **2** | **HR** |

**# Desired Output: -**

|  |  |  |  |
| --- | --- | --- | --- |
| **Table Name : employee\_department\_salary** | | | |
| **emp\_id** | **emp\_name** | **department\_name** | **salary** |
| **1** | **Venkat** | **IT** | **20,000** |
| **2** | **Johan** | **HR** | **12,000** |

Answer: select max(salary) from employees where emp\_name in (select department\_id from employess) ;