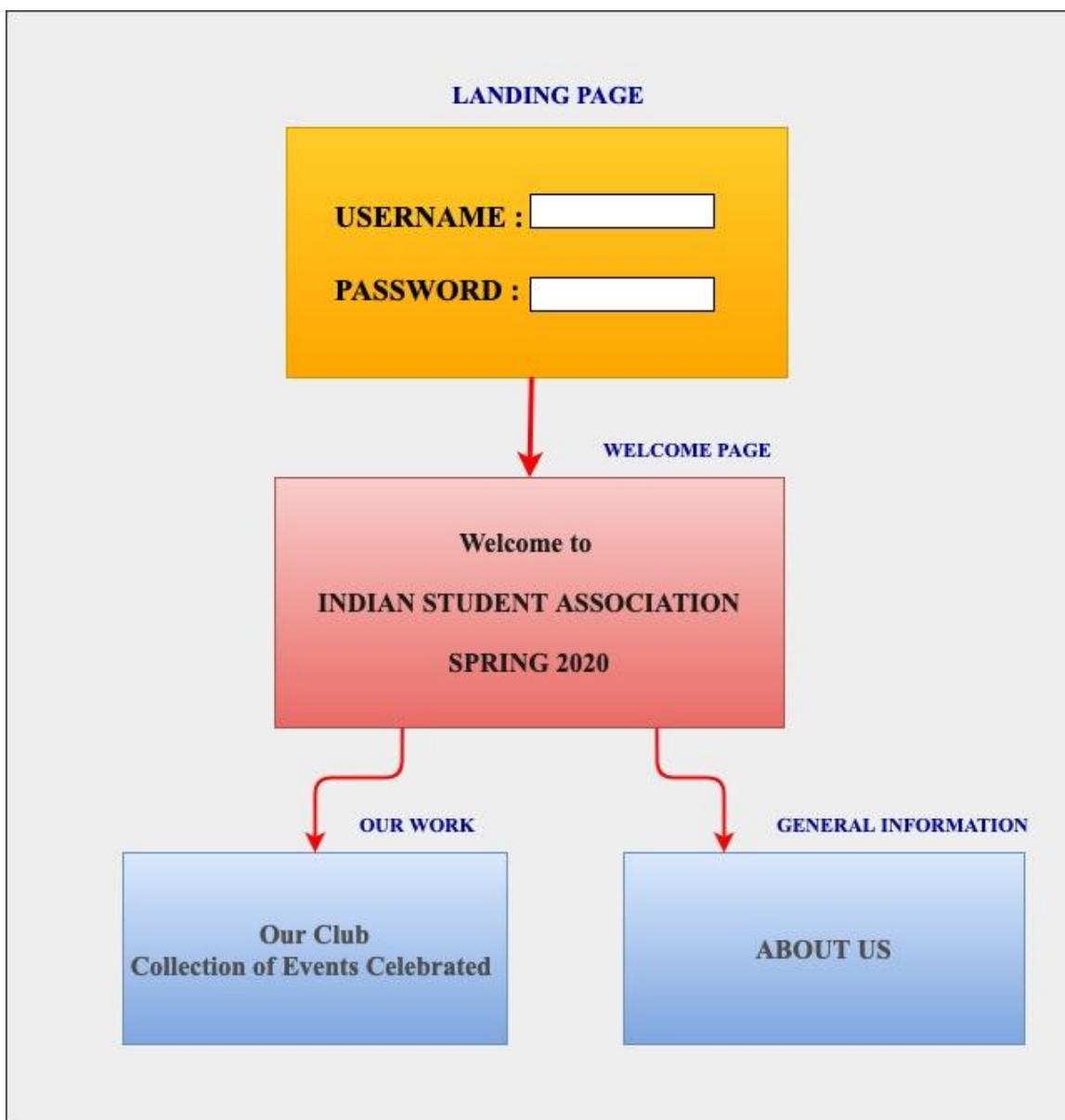


## CINS 370 Team Project Assignment 3

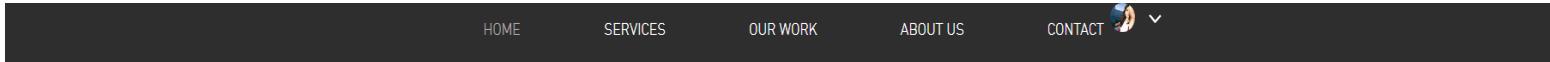
### **Group 1 Members**

Mansi Dogra  
Viraj Sonavane  
Adhaar Jaiswal

### High level hierarchy layout:



## Web design concept:



CHICO STATE  
**INDIAN STUDENT ASSOCIATION**  
JOIN US TODAY!



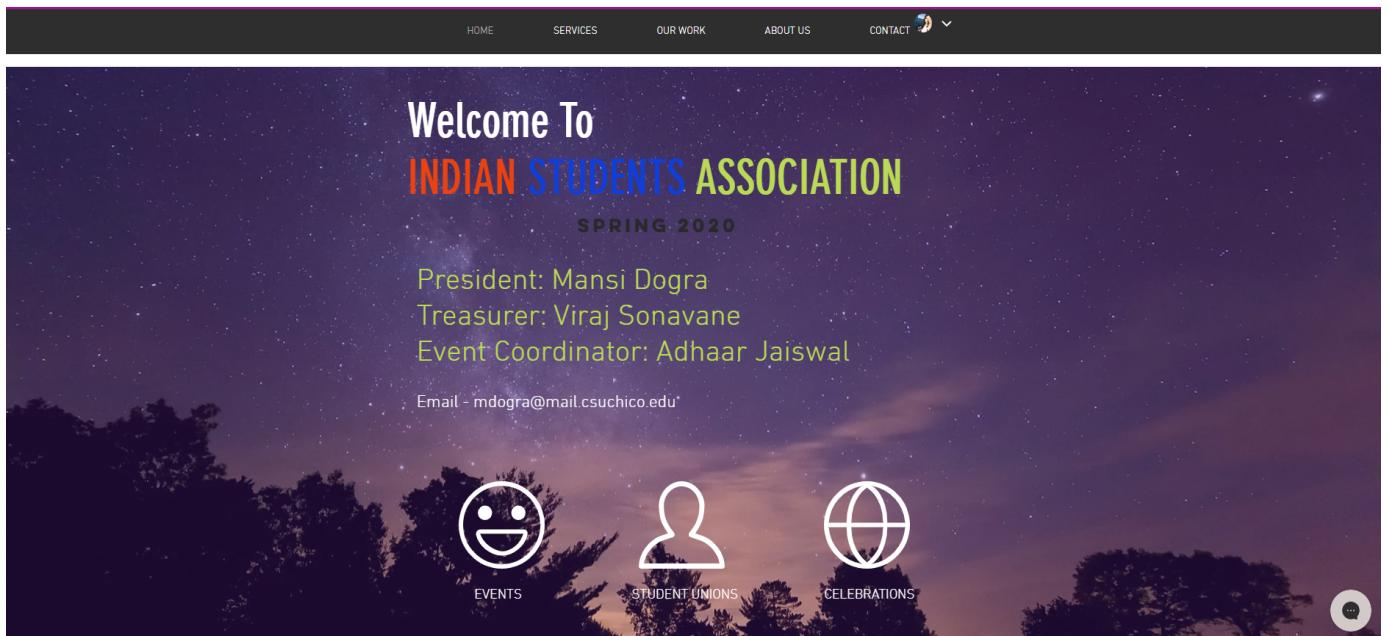
USERNAME:   
PASSWORD:

HOME SERVICES OUR WORK ABOUT US CONTACT 

Welcome To  
**INDIAN STUDENTS ASSOCIATION**  
SPRING 2020

President: Mansi Dogra  
Treasurer: Viraj Sonavane  
Event Coordinator: Adhaar Jaiswal

Email - mdogra@mail.csuchico.edu\*



EVENTS   
STUDENT UNIONS   
CELEBRATIONS 

## OUR CLUB

A collection of events we've celebrated over the year



## ABOUT US

The Indian Student Association represents the Indian community here on campus. We aim to represent the diversity of Indian culture in boulder by means of organizing various cultural events and activities. We provide support and encouragement to the members of our community and also aim to share our culture with members of different communities. We organize various cultural events throughout the year. We celebrate Indian festivals like Ganpati, Dushera, Diwali, and Holi. We also carry out various other events like Q&A sessions and Fresher's Night for the new batch every year. Every year, ISA also plays a key role in the orientation of the new batch of students coming from India and helps them via airport pickups, temporary accommodations so that the students adapt to the new environment and the education system at CU smoothly and start their life at CU with much ease.



## Load Data

Table 1 : Income

```
SQL> desc income;
   Name                           Null?    Type
   -----
   COUNTRY_CODE                    NOT NULL CHAR(3)
   REGION                          VARCHAR2(25)
   INCOME_GROUP                   VARCHAR2(25)
   COUNTRY                         VARCHAR2(25)

SQL> select * from income
  2  where rownum <= 10;

COU REGION                  INCOME_GROUP
--- -----
COUNTRY
-----
USA North America            High income
United States

ABW Latin America & Caribbean High income
Aruba

AFG South Asia               Low income
Afghanistan

COU REGION                  INCOME_GROUP
```

```
[t] Production  
adhaar@adhaar-VirtualBox:~$ sqlldr adhaar/AdhaarChico17 control='/home/adhaar/D  
ownloads/load_income_data.ctl'  
  
SQL*Loader: Release 11.2.0.2.0 - Production on Wed Mar 25 18:32:03 2020  
  
Copyright (c) 1982, 2009, Oracle and/or its affiliates. All rights reserved.  
  
Commit point reached - logical record count 64  
Commit point reached - logical record count 128  
Commit point reached - logical record count 192  
Commit point reached - logical record count 256  
adhaar@adhaar-VirtualBox:~$
```

```
Samoa
```

COU REGION	INCOME_GROUP
-----	-----
COUNTRY	
-----	
ZAF Sub-Saharan Africa	Upper middle income
South Africa	
ZMB Sub-Saharan Africa	Lower middle income
Zambia	
ZWE Sub-Saharan Africa	Low income
Zimbabwe	

COU REGION	INCOME_GROUP
-----	-----
COUNTRY	
-----	
TWN East Asia & Pacific	Lower middle income
Taiwan	

```
220 rows selected.
```

```
SQL>
```

**Table 2 : Product**

```
SQL> describe product;
Name                           Null?    Type
----                         -----
PRODUCT_COUNTRY_CODE          NOT NULL CHAR(3)
REGION                        NOT NULL VARCHAR2(25)
COUNTRY                       NOT NULL VARCHAR2(25)
ITEM_TYPE                     NOT NULL VARCHAR2(25)

SQL> select * from product where rownum <= 10;

PRO REGION                  COUNTRY
---  -----
ITEM_TYPE
----- 
USA North America            United States of America
Meat

CAN North America            Canada
Vegetables

JPN Asia                     Japan
Cereal

PRO REGION                  COUNTRY
---  -----
ITEM_TYPE
-----
```

```
c:\product\control
adhaar@adhaar-VirtualBox:~$ sqlldr adhaar/AdhaarChico17 control='/home/adhaar/D
ownloads/load_product_data.ctl'

SQL*Loader: Release 11.2.0.2.0 - Production on Wed Mar 25 21:59:04 2020

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Commit point reached - logical record count 64
Commit point reached - logical record count 128
```

Activities Terminal ▾ Wed 22:06  
adhaar@adhaar-VirtualBox: ~

```
File Edit View Search Terminal Help
-----
TON Australia and Oceania      Tonga
Household
TUV Australia and Oceania      Tuvalu
Snacks
GAB Sub-Saharan Africa         Gabon
Household
PRO REGION                      COUNTRY
-----
ITEM_TYPE
-----
TLS Australia and Oceania      East Timor
Vegetables
CYP Europe                       Cyprus
Snacks
MWI Sub-Saharan Africa          Malawi
Vegetables
60 rows selected.
SQL> |
```

**Table 3 : Population**

Activities Terminal ▾ Thu 22:05  
adhaar@adhaar-VirtualBox: ~

File Edit View Search Terminal Help  
51 rows selected.

```
SQL> describe Population;
Name Null? Type
-----
STATE NOT NULL VARCHAR2(25)
COUNTRY NOT NULL CHAR(3)
TOTAL_POPULATION NOT NULL NUMBER(15)

SQL> select * from Population where rownum <= 10;
```

STATE	COUNTRY	TOTAL_POPULATION
California	USA	39776830
Texas	USA	28704330
Florida	USA	21312211
New York	USA	19862512
Pennsylvania	USA	12823989
Illinois	USA	12768320
Ohio	USA	11694664
Georgia	USA	10545138
North Carolina	USA	10390149
Michigan	USA	9991177

10 rows selected.

```
SQL> ■
```

```
SQL*Loader-309: System error: No such file or directory
adhaar@adhaar-VirtualBox:~$ sqlldr adhaar/AdhaarChico17 control='/home/adhaar/Downloads/load_population_data.ctl'

SQL*Loader: Release 11.2.0.2.0 - Production on Thu Mar 26 21:54:41 2020

Copyright (c) 1982, 2009, Oracle and/or its affiliates. All rights reserved.

Commit point reached - logical record count 53
adhaar@adhaar-VirtualBox:~$ ■
```

Activities Terminal Thu 22:03 adhaar@adhaar-VirtualBox: ~

```
STATE          COU TOTAL_POPULATION
-----
Mississippi    USA   2982785
Kansas          USA   2918515
New Mexico      USA   2090708
Nebraska         USA   1932549
West Virginia    USA   1803077
Idaho            USA   1753860
Hawaii           USA   1426393
New Hampshire    USA   1350575
Maine            USA   1341582
Montana          USA   1062330
Rhode Island     USA   1061712

STATE          COU TOTAL_POPULATION
-----
Delaware        USA   971180
South Dakota    USA   877790
North Dakota    USA   755238
Alaska           USA   738068
District of Columbia USA   703608
Vermont          USA   623960
Wyoming          USA   573720

51 rows selected.

SQL> |
```

**Table 4 : Poverty**

```

SQL> desc poverty;
Name                           Null?    Type
----- -----
STATE                         NOT NULL VARCHAR2(20)
LOWER_LEVEL_PEOPLE           NOT NULL VARCHAR2(20)
UPPER_LEVEL_PEOPLE           NOT NULL VARCHAR2(20)
UPPER_BOUND_CHILDREN         NOT NULL VARCHAR2(20)
LOWER_BOUND_CHILDREN         NOT NULL VARCHAR2(20)

SQL> select * from poverty where rownum <= 10;

STATE          LOWER_LEVEL_PEOPLE   UPPER_LEVEL_PEOPLE
-----          -----          -----
UPPER_BOUND_CHILDREN LOWER_BOUND_CHILDREN
-----          -----
STATE          Lower_Level_People   Upper_Level_People
Lower_Bound_Children Upper_Bound_Children
-----          -----
Alabama        784517             820009
253694        272124

```

```

adhaar@adhaar-VirtualBox:~$ sqlldr adhaar/AdhaarChico17 control='/home/adhaar/D
ownloads/load_poverty_data.ctl'

SQL*Loader: Release 11.2.0.2.0 - Production on Thu Mar 26 22:25:42 2020

Copyright (c) 1982, 2009, Oracle and/or its affiliates. All rights reserved.

Commit point reached - logical record count 61

```

Activities Terminal Thu 22:30 adhaar@adhaar-VirtualBox: ~

STATE	LOWER_LEVEL_PEOPLE	UPPER_LEVEL_PEOPLE
UPPER_BOUND_CHILDREN	LOWER_BOUND_CHILDREN	
Virginia	856763	896113
247583	268493	
Washington	781803	817547
219520	240494	
West Virginia	316875	336129
83372	91830	
STATE	LOWER_LEVEL_PEOPLE	UPPER_LEVEL_PEOPLE
UPPER_BOUND_CHILDREN	LOWER_BOUND_CHILDREN	
Wisconsin	627066	653282
175854	191036	
Wyoming	57678	64960
15694	18938	

53 rows selected.

SQL> █

Table 5 : Immigration

```
SQL> desc immigration;
Name Null? Type
-----
PORT_CODE NOT NULL NUMBER(15)
PORT_NAME NOT NULL VARCHAR2(25)
STATE NOT NULL VARCHAR2(25)
BORDER NOT NULL VARCHAR2(25)
CROSSING_DATE DATE
CONTAINER NOT NULL VARCHAR2(45)
VALUE NOT NULL NUMBER(25)
LOCATION NOT NULL VARCHAR2(45)

SQL> select * from immigration where rownum<=10;

PORT_CODE PORT_NAME STATE
-----
BORDER CROSSING_
-----
CONTAINER VALUE
-----
LOCATION
-----
2507 Calexico East California
US-Mexico Border 02-MAR-19
Trucks 34447
POINT (-115.48433000000001 32.67524)
```

Activities Terminal ▾ Fri 18:00  
adhaar@adhaar-VirtualBox: ~

File Edit View Search Terminal Help

t Production

```
adhaar@adhaar-VirtualBox:~$ sqldr control='/home/adhaar/Downloads/load_immigration_data.ctl', LOG='/home/adhaar/Downloads/sample.log', USERID=adhaar/AdhaarChico17, ERRORS=999, LOAD=2000, DISCARDMAX=5
```

SQL\*Loader: Release 11.2.0.2.0 - Production on Fri Mar 27 18:00:05 2020

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Commit point reached - logical record count 64  
Commit point reached - logical record count 128  
Commit point reached - logical record count 192  
Commit point reached - logical record count 256  
Commit point reached - logical record count 320  
Commit point reached - logical record count 384  
Commit point reached - logical record count 448  
Commit point reached - logical record count 512  
Commit point reached - logical record count 576  
Commit point reached - logical record count 640  
Commit point reached - logical record count 704  
Commit point reached - logical record count 768  
Commit point reached - logical record count 832  
Commit point reached - logical record count 896  
Commit point reached - logical record count 960  
Commit point reached - logical record count 1024  
Commit point reached - logical record count 1088  
Commit point reached - logical record count 1152

```
adhaar@adhaar-VirtualBox:~$
```

Activities Terminal Fri 18:00  
adhaar@adhaar-VirtualBox: ~

```
CONTAINER VALUE
LOCATION
-----  
3814 Algonac Michigan
US-Canada Border 01-SEP-18
Personal Vehicles 4553
POINT (-83.04676 42.33222)

PORT_CODE PORT_NAME STATE
BORDER CROSSING_
CONTAINER VALUE
LOCATION
-----  
101 Portland Maine
US-Canada Border 01-SEP-18
Personal Vehicles 2304
POINT (-70.27676 43.65539)

111 rows selected.

SQL> ■
```

## SQL Commands

### a) Select :

```
SQL> select * from income where region='South Asia';

COU REGION           INCOME_GROUP
--- -----
COUNTRY
-----
AFG South Asia       Low income
Afghanistan

BGD South Asia       Lower middle income
Bangladesh

BTN South Asia       Lower middle income
Bhutan

COU REGION           INCOME_GROUP
--- -----
COUNTRY
-----
IND South Asia        Lower middle income
```

b) Update:

Activities Terminal Fri 18:10 adhaar@adhaar-VirtualBox: ~

```
File Edit View Search Terminal Help
SQL> select * from Product where REGION = 'Australia and Oceania';
PRO REGION          COUNTRY
-----
ITEM_TYPE
-----
FJI Australia and Oceania    Fiji
Vegetables

VUT Australia and Oceania    Vanuatu
Vegetables

TON Australia and Oceania    Tonga
Household

PRO REGION          COUNTRY
-----
ITEM_TYPE
-----
TUV Australia and Oceania    Tuvalu
Snacks

TLS Australia and Oceania    East Timor
Vegetables

SQL> ■
```

```
SQL> Update Product set ITEM_TYPE='Snacks'
   2  where REGION='Australia and Oceania';
5 rows updated.
```

Activities Terminal Fri 18:13 adhaar@adhaar-VirtualBox: ~

```
File Edit View Search Terminal Help
SQL> select * from Product where REGION = 'Australia and Oceania';
PRO REGION          COUNTRY
-----
ITEM_TYPE
-----
FJI Australia and Oceania    Fiji
Snacks
VUT Australia and Oceania    Vanuatu
Snacks
TON Australia and Oceania    Tonga
Snacks
PRO REGION          COUNTRY
-----
ITEM_TYPE
-----
TUV Australia and Oceania    Tuvalu
Snacks
TLS Australia and Oceania    East Timor
Snacks
SQL> ■
```

c) JOIN

```
SQL> Select Immigration.Port_Code, Population.State, Population.Country, Immigration.Crossing_Date from Immigration,Population where Immigration.State = Population.State;
```

PORT_CODE	STATE	COU	CROSSING_
2507	California	USA	02-MAR-19
108	Maine	USA	01-MAR-19
2506	California	USA	01-MAR-19
2604	Arizona	USA	01-MAR-19
715	New York	USA	02-MAR-19
109	Maine	USA	01-MAR-19
3401	North Dakota	USA	01-MAR-19
2309	Texas	USA	01-MAR-19
3403	North Dakota	USA	02-MAR-19
712	New York	USA	01-MAR-19
3317	Montana	USA	01-MAR-19

PORT_CODE	STATE	COU	CROSSING_
3404	North Dakota	USA	01-MAR-19
3430	Minnesota	USA	01-MAR-19
209	Vermont	USA	01-MAR-19
3409	North Dakota	USA	01-MAR-19
3323	Montana	USA	01-MAR-19
3023	Washington	USA	01-MAR-19

d) Create View

Activities Terminal Fri 18:35  
adhaar@adhaar-VirtualBox: ~

```
SQL> quit
Disconnected from Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production
adhaar@adhaar-VirtualBox:~$ rlwrap sqlplus

SQL*Plus: Release 11.2.0.2.0 Production on Fri Mar 27 18:33:57 2020

Copyright (c) 1982, 2011, Oracle. All rights reserved.

Enter user-name: adhaar
Enter password:

Connected to:
Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production

SQL> create view poverty_view as select * from poverty;
View created.

SQL> select * from poverty_view;

STATE          LOWER_LEVEL_PEOPLE    UPPER_LEVEL_PEOPLE
-----          -----
UPPER_BOUND_CHILDREN LOWER_BOUND_CHILDREN
-----          -----
STATE          Lower_Level_People    Upper_Level_People
Lower_Bound_Children Upper_Bound_Children
```

e) GROUP BY :

```
SQL> select count(*) as "Number of countries" from income where region = 'Sub-Saharan Africa' group by income_group;

Number of countries
-----
27
7
1
12

SQL>
```

### EXTRA CREDIT QUERIES :

#### Referential Integrity Constraint Violations :

```
SQL> select * from product,income where product.product_country_code = income.country_code;

PRO REGION          COUNTRY
-----          -----
ITEM_TYPE          COU REGION
-----          -----
INCOME_GROUP        COUNTRY
-----          -----
USA North America   United States of America
Meat                USA North America
High income         United States

ARM Europe          Armenia
Cereal              ARM Europe & Central Asia
Lower middle income Armenia

PRO REGION          COUNTRY
-----          -----
ITEM_TYPE          COU REGION
-----          -----
INCOME_GROUP        COUNTRY
-----          -----
AUT Europe          Austria
Office Supplies     AUT Europe & Central Asia
```

a) Delete :

```
SQL> delete from income where country_code = 'UZB';
delete from income where country_code = 'UZB'
*
ERROR at line 1:
ORA-02292: integrity constraint (ADHAAR.FK_PRODUCT_COUNTRY_CODE) violated -
child record found
```

```
SQL> █
```

b) Update :

```
SQL> update income set country_code = 'IND' where country_code = 'VUT';
update income set country_code = 'IND' where country_code = 'VUT'
*
ERROR at line 1:
ORA-00001: unique constraint (ADHAAR.COUNTRY_CODE_PK) violated
```

```
SQL> █
```

c) Insert :

```
SQL> insert into product values ('MYS','East Asia & Pacific','Upper Middle Income','Malaysia');
Enter value for pacific:
old  1: insert into product values ('MYS','East Asia & Pacific','Upper Middle Income','Malaysia')
new  1: insert into product values ('MYS','East Asia ','Upper Middle Income','Malaysia')
insert into product values ('MYS','East Asia ','Upper Middle Income','Malaysia')
)
*
ERROR at line 1:
ORA-02291: integrity constraint (ADHAAR.FK_PRODUCT_COUNTRY_CODE) violated -
parent key not found
```

```
SQL> █
```

## 2) Query for getting countries grouped according to their income groups :

```
SQL> select count(*) as "Number of countries", income_group from income group by income_group order by count(*) desc;
```

Number of countries	INCOME_GROUP
70	High income
48	Upper middle income
45	Lower middle income
31	Low income
25	

```
SQL> █
```

## Number of Countries vs. Income Group

