

## Introduction

In this project we will use india's export forecast with different countries.

## Connection

```
In [2]: %load_ext sql
import pandas as pd
%sql postgresql://postgres:2003@localhost/Export_data
%sql SELECT * FROM export_ind LIMIT 5;

* postgresql://postgres:***@localhost/Export_data
5 rows affected.
```

```
Out[2]:
```

hscode	commodity	value	country	year
2	MEAT AND EDIBLE MEAT OFFAL	1.40	AFGHANISTAN	2010
3	FISH AND CRUSTACEANS, MOLLUSCS AND OTHER AQUATIC INVERTABRATES.	0.08	AFGHANISTAN	2010
4	DAIRY PRODUCE, BIRDS' EGGS; NATURAL HONEY; EDIBLE PROD. OF ANIMAL ORIGIN, NOT ELSEWHERE SPEC. OR INCLUDED.	3.89	AFGHANISTAN	2010
5	PRODUCTS OF ANIMAL ORIGIN, NOT ELSEWHERE SPECIFIED OR INCLUDED.	None	AFGHANISTAN	2010
6	LIVE TREES AND OTHER PLANTS; BULBS, ROOTS AND THE LIKE; CUT FLOWERS AND ORNAMENTAL FOLIAGE.	None	AFGHANISTAN	2010

## Number of Countries in dataset

Note: There are different regions of same country so count is 249 as there are not 249 countries in world.

```
In [9]: %sql SELECT COUNT(DISTINCT country) FROM export_ind;

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[9]:
```

count
249

## Number of Distinct Commodities

```
In [10]: %sql SELECT COUNT(DISTINCT commodity) FROM export_ind;

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[10]:
```

count
98

```
In [12]: %sql SELECT DISTINCT commodity FROM export_ind LIMIT 10;

* postgresql://postgres:***@localhost/Export_data
10 rows affected.
```

```
Out[12]:
```

commodity
AIRCRAFT, SPACECRAFT, AND PARTS THEREOF.
RUBBER AND ARTICLES THEREOF.
MISCELLANEOUS GOODS.
MEAT AND EDIBLE MEAT OFFAL
PREPARED FEATHERS AND DOWN AND ARTICLES MADE OF FEATHERS OR OF DOWN; ARTIFICIAL FLOWERS; ARTICLES OF HUMAN HAIR
SHIPS, BOATS AND FLOATING STRUCTURES.
ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS.
MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES.
COFFEE, TEA, MATE AND SPICES.
OTHER VEGETABLE TEXTILE FIBRES; PAPER YARN AND WOVEN FABRICS OF PAPER YARN.

## Total export of india in year 2021 in million US\$

```
In [13]: %sql SELECT SUM(value) FROM export_ind WHERE year=2021;

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[13]:
```

sum
421984.37

## COMPARING EXPORT TO USA IN 2010 Vs 2021;

```
In [16]: %sql SELECT SUM(value) FROM export_ind WHERE (year = 2010) AND (country = 'U S A');

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[16]:
```

sum
25291.56

```
In [17]: %sql SELECT SUM(value) FROM export_ind WHERE (year=2021) AND (country='U S A');

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[17]:
```

sum
76166.63

## Largest Exporter of India in 2021

```
In [20]: %sql SELECT country, commodity FROM export_ind WHERE year = 2021 AND value = (SELECT MAX(value) FROM export_ind WHERE year = 2021);

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

Out[20]:	<table><tr><th>country</th><th>commodity</th></tr><tr><td>U S A</td><td>NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.</td></tr></table>	country	commodity	U S A	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.
country	commodity				
U S A	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.				

Largest Exporter of India in 2010

In [21]:	<pre>%sql SELECT country,commodity FROM export_ind WHERE year=2010 AND value=(SELECT MAX(value) FROM export_ind WHERE year=2010); * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
----------	--

Out[21]:	<table><tr><th>country</th><th>commodity</th></tr><tr><td>U ARAB E MTS</td><td>NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.</td></tr></table>	country	commodity	U ARAB E MTS	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.
country	commodity				
U ARAB E MTS	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.				

Most Valued Product India exported to USA the most in 2021

In [22]:	<pre>%sql SELECT commodity FROM export_ind WHERE year=2021 AND value=(SELECT MAX(value) FROM export_ind WHERE year=2021); * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
----------	--

Out[22]:	<table><tr><th>commodity</th></tr><tr><td>NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE METALS,CLAD WITH PRE METAL AND ARTCLS THEREOF;IMIT,JEWELRY;COIN.</td></tr></table>	commodity	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE METALS,CLAD WITH PRE METAL AND ARTCLS THEREOF;IMIT,JEWELRY;COIN.
commodity			
NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE METALS,CLAD WITH PRE METAL AND ARTCLS THEREOF;IMIT,JEWELRY;COIN.			

Import data of India

In [23]:	<pre>%sql SELECT * FROM import_ind LIMIT 5; * postgresql://postgres:***@localhost/Export_data 5 rows affected.</pre>
----------	--

Out[23]:

hscode	commodity	value	country	year
7	EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS.	9.14	AFGHANISTAN	2010
8	EDIBLE FRUIT AND NUTS; PEEL OR CITRUS FRUIT OR MELONS.	93.82	AFGHANISTAN	2010
9	COFFEE, TEA, MATE AND SPICES.	2.54	AFGHANISTAN	2010
12	OIL SEEDS AND OLEA. FRUITS; MISC. GRAINS, SEEDS AND FRUIT; INDUSTRIAL OR MEDICINAL PLANTS; STRAW AND FODDER.	0.32	AFGHANISTAN	2010
13	LAC; GUMS, RESINS AND OTHER VEGETABLE SAPS AND EXTRACTS.	37.67	AFGHANISTAN	2010

Number of Countries in dataset

In [25]:	<pre>%sql SELECT COUNT(DISTINCT country) FROM import_ind; * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
----------	--

Out[25]:	<table><tr><th>count</th></tr><tr><td>243</td></tr></table>	count	243
count			
243			

India's Largest Importer in 2010 Vs 2021

In [29]:	<pre>%sql SELECT country,commodity FROM import_ind WHERE year=2010 AND value=(SELECT MAX(value) FROM import_ind WHERE year=2010); * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
----------	--

Out[29]:	<table><tr><th>country</th><th>commodity</th></tr><tr><td>SWITZERLAND</td><td>NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.</td></tr></table>	country	commodity	SWITZERLAND	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.
country	commodity				
SWITZERLAND	NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT,JEWELRY,COIN.				

In [30]:	<pre>%sql SELECT country,commodity FROM import_ind WHERE year=2021 AND value=(SELECT MAX(value) FROM import_ind WHERE year=2021); * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
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Out[30]:	<table><tr><th>country</th><th>commodity</th></tr><tr><td>IRAQ</td><td>MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES.</td></tr></table>	country	commodity	IRAQ	MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES.
country	commodity				
IRAQ	MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES.				

Commodities India import

In [31]:	<pre>%sql SELECT DISTINCT commodity FROM import_ind LIMIT 10; * postgresql://postgres:***@localhost/Export_data 10 rows affected.</pre>
----------	---

Out[31]:

commodity
AIRCRAFT, SPACECRAFT, AND PARTS THEREOF.
RUBBER AND ARTICLES THEREOF.
MISCELLANEOUS GOODS.
MEAT AND EDIBLE MEAT OFFAL.
PREPARED FEATHERS AND DOWN AND ARTICLES MADE OF FEATHERS OR OF DOWN; ARTIFICIAL FLOWERS; ARTICLES OF HUMAN HAIR.
SHIPS, BOATS AND FLOATING STRUCTURES.
ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS.
MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES.
COFFEE, TEA, MATE AND SPICES.
OTHER VEGETABLE TEXTILE FIBRES, PAPER YARN AND WOVEN FABRICS OF PAPER YARN.

Total import in 2010 vs 2021

In [32]:	<pre>%sql SELECT SUM(value) FROM import_ind WHERE year=2010; * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
----------	---

Out[32]:	<table><tr><th>sum</th></tr><tr><td>369762.25</td></tr></table>	sum	369762.25
sum			
369762.25			

In [33]:	<pre>%sql SELECT SUM(value) FROM import_ind WHERE year=2021; * postgresql://postgres:***@localhost/Export_data 1 rows affected.</pre>
----------	---

Out[33]:	<table><tr><th>sum</th></tr><tr><td>613045.41</td></tr></table>	sum	613045.41
sum			
613045.41			

## Most Valued Commodity India imported the most from USA in 2010 Vs 2021

```
In [34]: %sql SELECT commodity FROM import_ind WHERE year=2010 AND value=(SELECT MAX(value) FROM import_ind WHERE year=2010);

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[34]:
```

commodity
NATURAL OR CULTURED PEARLS,PRECIOUS OR SEMIPRECIOUS STONES,PRE.METALS,CLAD WITH PRE.METAL AND ARTCLS THEREOF,IMIT.JEWELRY,COIN.

```
In [35]: %sql SELECT commodity FROM import_ind WHERE year=2021 AND value=(SELECT MAX(value) FROM import_ind WHERE year=2021);

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[35]:
```

commodity
MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES.

## India's total import from USA in 2021 Vs 2010

```
In [37]: %sql SELECT SUM(value) FROM import_ind WHERE year=2021 AND (country='U S A');

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[37]:
```

sum
43313.75

```
In [38]: %sql SELECT SUM(value) FROM import_ind WHERE year=2010 AND (country='U S A');

* postgresql://postgres:***@localhost/Export_data
1 rows affected.
```

```
Out[38]:
```

sum
20050.41

END