

# MINI PROJECT DBMS (DBMS-I + DBMS-II)

**TITLE:- PROJECT 4**

**SUBMITTED BY:-**

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# Problem Definition

❖ DATASET A:

ICC Test Batting Figures.csv

❖ PROBLEM STATEMENT :

Test cricket is the form of the sport of cricket with the longest match duration and is considered the game's highest standard. Test matches are played between national representative teams that have been granted 'Test status', as determined and conferred by the International Cricket Council (ICC). The term Test stems from the fact that the long, gruelling matches are mentally and physically testing. Two teams of 11 players each play a four-innings match, which may last up to five days (or longer in some historical cases). It is generally considered the most complete examination of a team's endurance and ability.

The Data consists of runs scored by the batsmen from 1877 to 2019 December.

# Data Set Description

Sl No	Column Name	Column Description
1	Player	Name of the player and country the player belongs to
2	Span	The duration of years between which the player was active
3	Mat	No of matches played by the player
4	Inn	No of innings played by the player
5	NO	No of matches the player was NOT OUT by the end of the match.
6	Runs	Total number of runs scored by the player
7	HS	Highest Score of the player
8	Avg	Average runs scored by the player in all the matches
9	100	No of centuries scored by the player
10	50	No of fifties scored by the player
11	0	No of Duck outs of the player
12	Player Profile	Link to the profiles of the players

# Business Importance of Problem

This ICC project, will help in sports analytics in the following aspects –

- ❖ Teams performance and Players Performance
- ❖ Ad campaigning and Sponsorships
- ❖ Player Performance Analysis and Historical Trends and Patterns

This Supply Chain project will help in the following aspects-

- ❖ Inventory Management
- ❖ Supplier Relationship Management
- ❖ Order Fulfillment: Supply Chain Efficiency
- ❖ Data-Driven Decision Making
- ❖ Business Performance Analysis

# Problem Definition

- ❖ DATASET B :

- Supply Chain

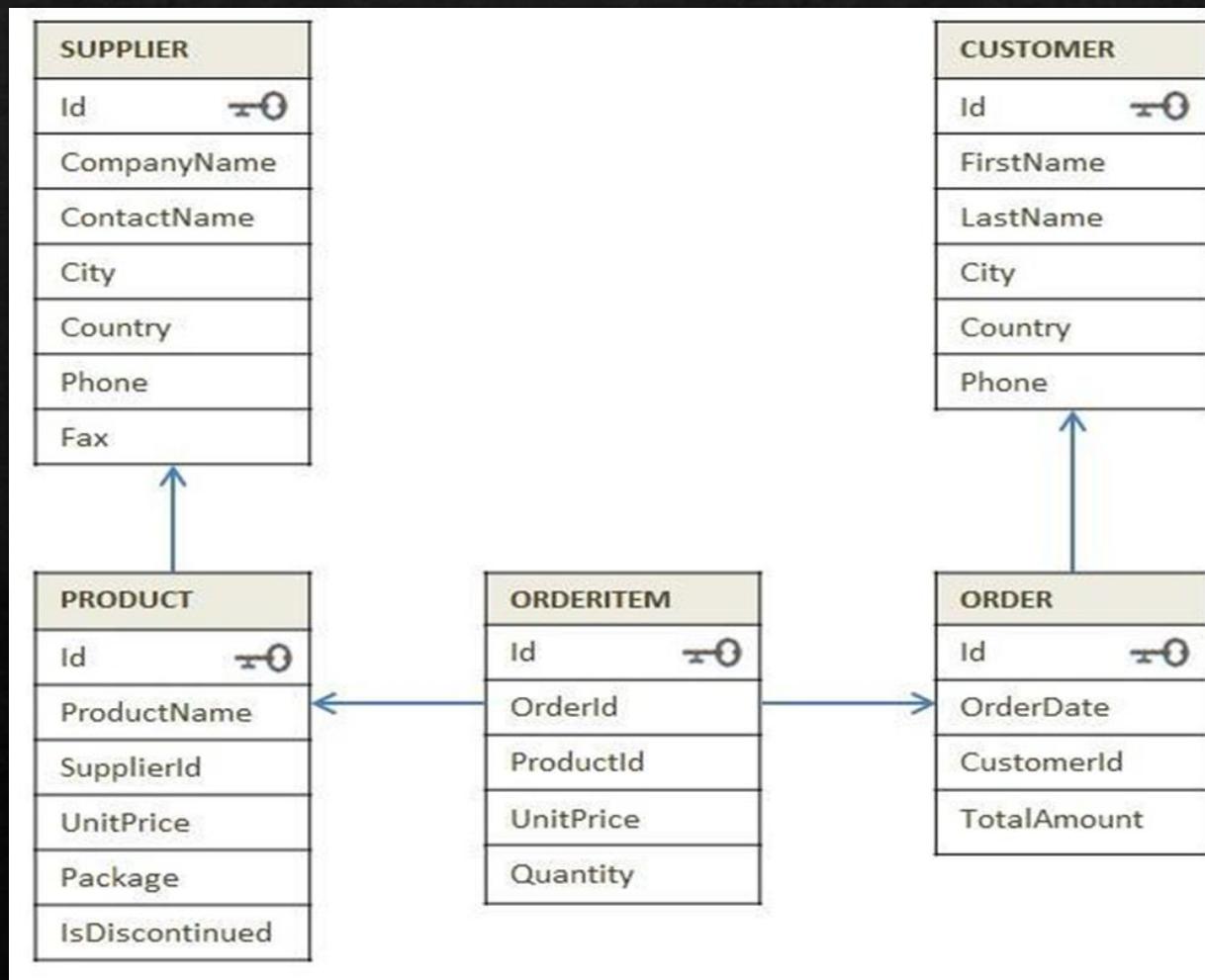
- ❖ PROBLEM STATEMENT :

“Richard’s Supply” is a company which deals with different food products. The company is associated with a pool of suppliers. Every Supplier supplies different types of food products to Richard’s supply.

This company also receives orders for the food products from various customers. Each order may have multiple products mentioned along with the quantity.

The company has been maintaining the database for 2 years.

# Data Set Description

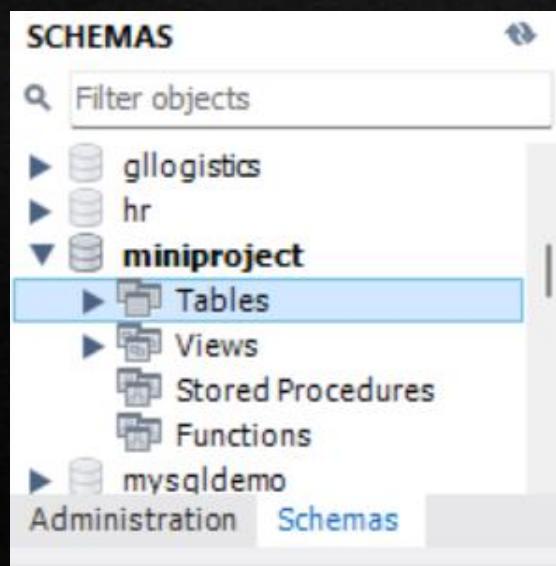


# PART A

## Project Flow – Question 1

- ❖ Write the question

Import the csv file to a table in the database.



## Code snippet

```
-- 1. Import the csv file to a table in the database.  
select * from `icc test batting figures`;
```

## Solution :-

Result Grid													Player Profile
	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0		
	A Bacher (SA)	1965-1970	12	22	1	679	73	32.33	0	6	1		<a href="http://stats.espncricinfo.com/ci/content/player/...">http://stats.espncricinfo.com/ci/content/player/...</a>
	A Balbirnie (IRE)	2018-2019	3	6	0	146	82	24.33	0	2	2		<a href="http://stats.espncricinfo.com/ci/content/player/...">http://stats.espncricinfo.com/ci/content/player/...</a>
▶	A Chopra (INDIA)	2003-2004	10	19	0	437	60	23	0	2	1		<a href="http://stats.espncricinfo.com/ci/content/player/...">http://stats.espncricinfo.com/ci/content/player/...</a>
	A Coningham (AUS)	1894-1895	1	2	0	13	10	6.5	0	0	0		<a href="http://stats.espncricinfo.com/ci/content/player/...">http://stats.espncricinfo.com/ci/content/player/...</a>
	A Cotter (AUS)	1904-1912	21	37	2	457	45	13.05	0	0	6		<a href="http://stats.espncricinfo.com/ci/content/player/...">http://stats.espncricinfo.com/ci/content/player/...</a>

# Project Flow – Question 2

## ❖ Question

Remove the column 'Player Profile' from the table.

Code snippet:-

```
-- 2. Remove the column 'Player Profile' from the table.  
alter table `icc test batting figures (1)` drop column `Player Profile`;
```

Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0
▶	SR Tendulkar (INDIA)	1989-2013	200	329	33	15921	248*	53.78	51	68	14
	RT Ponting (AUS)	1995-2012	168	287	29	13378	257	51.85	41	62	17
	JH Kallis (ICC/SA)	1995-2013	166	280	40	13289	224	55.37	45	58	16
	R Dravid (ICC/INDIA)	1996-2012	164	286	32	13288	270	52.31	36	63	8
	AN Cook (ENG)	2006-2018	161	291	16	12472	294	45.35	33	57	9

# Project Flow – Question 3

## ❖ Question

Extract the country name and player names from the given data and store it in separate columns for further usage.

Understanding:-

In the dataset ICC there is a column player which consists both the player name as well as the player's country. Here we are splitting the player name and country into two different columns.

## Code snippet:-

```
alter table `icc test batting figures (1)` add Player_Name varchar(50);
alter table `icc test batting figures (1)` add Country varchar(50);

update `icc test batting figures (1)` set Player_Name = trim(' ' From SUBSTRING_INDEX(player,'(,1));
update `icc test batting figures (1)` set Country = trim(')' from SUBSTRING_INDEX(player,'(,-1));

update `icc test batting figures (1)` set Country =  SUBSTRING_INDEX(Country,'/',-1) where Country like 'ICC/%';
update `icc test batting figures (1)` set Country = SUBSTRING_INDEX(Country,'/',1) where Country like '%/ICC';
update `icc test batting figures (1)` set Country = SUBSTRING_INDEX(Country,'/',-1) where country not like 'ICC/%'
and country not like '%/ICC' and country like '%/%';
```

## Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country
▶	SR Tendulkar (INDIA)	1989-2013	200	329	33	15921	248*	53.78	51	68	14	SR Tendulkar	INDIA
	RT Ponting (AUS)	1995-2012	168	287	29	13378	257	51.85	41	62	17	RT Ponting	AUS
	JH Kallis (ICC/SA)	1995-2013	166	280	40	13289	224	55.37	45	58	16	JH Kallis	SA
	R Dravid (ICC/INDIA)	1996-2012	164	286	32	13288	270	52.31	36	63	8	R Dravid	INDIA
	AN Cook (ENG)	2006-2018	161	291	16	12472	294	45.35	33	57	9	AN Cook	ENG
	KC Sangakkara (SL)	2000-2015	134	233	17	12400	319	57.4	38	52	11	KC Sangakkara	SL
	BC Lara (ICC/WI)	1990-2006	131	232	6	11953	400*	52.88	34	48	17	BC Lara	WI

# Project Flow – Question 4

- ❖ Question

From the column 'Span' extract the start\_year and end\_year and store them in separate columns for further usage.

- ❖ Understanding:-

In the dataset ICC there is a column span which consists both the start and end year of the player. Here we are splitting the player's start and end year into two different columns.

## Code snippet:-

```
alter table `icc test batting figures (1)` add Start_Year int;
alter table `icc test batting figures (1)` add End_Year int;

update `icc test batting figures (1)` set Start_Year = SUBSTRING_INDEX(Span,'-',1);
update `icc test batting figures (1)` set End_Year = SUBSTRING_INDEX(Span,'-',-1);
```

## Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year
▶	SR Tendulkar (INDIA)	1989-2013	200	329	33	15921	248*	53.78	51	68	14	SR Tendulkar	INDIA	1989	2013
	RT Ponting (AUS)	1995-2012	168	287	29	13378	257	51.85	41	62	17	RT Ponting	AUS	1995	2012
	JH Kallis (ICC/SA)	1995-2013	166	280	40	13289	224	55.37	45	58	16	JH Kallis	SA	1995	2013
	R Dravid (ICC/INDIA)	1996-2012	164	286	32	13288	270	52.31	36	63	8	R Dravid	INDIA	1996	2012
	AN Cook (ENG)	2006-2018	161	291	16	12472	294	45.35	33	57	9	AN Cook	ENG	2006	2018
	KC Sangakkara (SL)	2000-2015	134	233	17	12400	319	57.4	38	52	11	KC Sangakkara	SL	2000	2015
	BC Lara (ICC/WI)	1990-2006	131	232	6	11953	400*	52.88	34	48	17	BC Lara	WI	1990	2006

# Project Flow – Question 5

## ❖ Question

The column 'HS' has the highest score scored by the player so far in any given match. The column also has details if the player had completed the match in a NOT OUT status.

Extract the data and store the highest runs and the NOT OUT status in different columns.

## ❖ Understanding:-

The column HS consists the data of the player's highest score as well as the player who are still playing the match. A new column is being added to the table which displays the status of the player.

## Code snippet:-

```
alter table `icc test batting figures (1)` add Status varchar(10); # adding column
update `icc test batting figures (1)` set                      #Updating Values
Status = CASE
when HS like '%*' then 'NOT OUT'
else 'OUT'
END;
update `icc test batting figures (1)` set HS = trim('*' from HS);
alter table `icc test batting figures (1)` modify HS int;
select * from `icc test batting figures (1)` order by HS desc;
```

## Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year	Status
▶	SR Tendulkar (INDIA)	1989-2013	200	329	33	15921	248	53.78	51	68	14	SR Tendulkar	INDIA	1989	2013	NOT OUT
	RT Ponting (AUS)	1995-2012	168	287	29	13378	257	51.85	41	62	17	RT Ponting	AUS	1995	2012	OUT
	JH Kallis (ICC/SA)	1995-2013	166	280	40	13289	224	55.37	45	58	16	JH Kallis	SA	1995	2013	OUT
	R Dravid (ICC/INDIA)	1996-2012	164	286	32	13288	270	52.31	36	63	8	R Dravid	INDIA	1996	2012	OUT
	AN Cook (ENG)	2006-2018	161	291	16	12472	294	45.35	33	57	9	AN Cook	ENG	2006	2018	OUT
	KC Sangakkara (SL)	2000-2015	134	233	17	12400	319	57.4	38	52	11	KC Sangakkara	SL	2000	2015	OUT
	BC Lara (ICC/WI)	1990-2006	131	232	6	11953	400	52.88	34	48	17	BC Lara	WI	1990	2006	NOT OUT

# Project Flow – Question 6

## ❖ Question

Using the data given, considering the players who were active in the year of 2019, create a set of batting order of best 6 players using the selection criteria of those who have a good average score across all matches for India.

## ❖ Understanding:-

Here we are extracting best 6 players with highest average score who played for India in the year 2019.

## Code snippet:-

```
select * from `icc test batting figures (1)`
where (start_year<=2019 and End_Year >= 2019)
and Country like '%india%'
order by Avg Desc
limit 6;
```

## Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year	Status
▶	MA Agarwal (INDIA)	2018-2019	9	13	0	872	243	67.07	3	3	0	MA Agarwal	INDIA	2018	2019	OUT
	V Kohli (INDIA)	2011-2019	84	141	10	7202	254	54.97	27	22	10	V Kohli	INDIA	2011	2019	NOT OUT
	CA Pujara (INDIA)	2010-2019	75	124	8	5740	206	49.48	18	24	7	CA Pujara	INDIA	2010	2019	NOT OUT
	RG Sharma (INDIA)	2013-2019	32	53	7	2141	212	46.54	6	10	4	RG Sharma	INDIA	2013	2019	OUT
	RR Pant (INDIA)	2018-2019	11	18	1	754	159	44.35	2	2	1	RR Pant	INDIA	2018	2019	NOT OUT
	AM Rahane (INDIA)	2013-2019	63	105	11	4112	188	43.74	11	22	6	AM Rahane	INDIA	2013	2019	OUT

# Project Flow – Question 7

## ❖ Question

Using the data given, considering the players who were active in the year of 2019, create a set of batting order of best 6 players using the selection criteria of those who have the highest number of 100s across all matches for India.

## ❖ Understanding:-

Here we are extracting best 6 players with highest number of centuries who played for India in the year 2019.

Code snippet:-

```
select * from `icc test batting figures (1)`
where (start_year<=2019 and End_Year >= 2019)
and Country like '%india%'
order by `100` Desc
limit 6;
```

Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year	Status
▶	V Kohli (INDIA)	2011-2019	84	141	10	7202	254	54.97	27	22	10	V Kohli	INDIA	2011	2019	NOT OUT
	CA Pujara (INDIA)	2010-2019	75	124	8	5740	206	49.48	18	24	7	CA Pujara	INDIA	2010	2019	NOT OUT
	AM Rahane (INDIA)	2013-2019	63	105	11	4112	188	43.74	11	22	6	AM Rahane	INDIA	2013	2019	OUT
	RG Sharma (INDIA)	2013-2019	32	53	7	2141	212	46.54	6	10	4	RG Sharma	INDIA	2013	2019	OUT
	KL Rahul (INDIA)	2014-2019	36	60	2	2006	199	34.58	5	11	6	KL Rahul	INDIA	2014	2019	OUT
	R Ashwin (INDIA)	2011-2019	70	96	13	2385	124	28.73	4	11	3	R Ashwin	INDIA	2011	2019	OUT

# Project Flow – Question 8

- ❖ Question

Using the data given, considering the players who were active in the year of 2019, create a set of batting order of best 6 players using 2 selection criteria of your own for India.

- ❖ Understanding:-

Here we are extracting best 6 players who played for India in the year 2019 and

1st Selection Criteria - Runs must be more than 5000

2nd Selection Criteria – At-least Player must have 20 Centuries

Code snippet:-

```
select * from `icc test batting figures (1)`  
where (start_year<=2019 and End_Year >= 2019) #2019 Active Players  
and (Runs >=5000) and (^100^ > 20 ) #Two Criteria's  
and Country like '%india%'  
limit 6 ;
```

Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year	Status
▶	V Kohli (INDIA)	2011-2019	84	141	10	7202	254	54.97	27	22	10	V Kohli	INDIA	2011	2019	NOT OUT

# Project Flow – Question 9

## ❖ Question

Create a View named ‘Batting\_Order\_GoodAvgScorers\_SA’ using the data given, considering the players who were active in the year of 2019, create a set of batting order of best 6 players using the selection criteria of those who have a good average score across all matches for South Africa.

## ❖ Understanding:-

Here we are creating a view by extracting best 6 players with highest average score who played for SA in the year 2019.

## Code snippet:-

```
create view Batting_Order_GoodAvgScorers_SA as
select * from `icc test batting figures (1)`
where (start_year<=2019 and End_Year >= 2019) and Country like '%SA'
order by Avg desc limit 6;
select * from Batting_Order_GoodAvgScorers_SA;
```

## Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year	Status
▶	S Muthusamy (SA)	2019-2019	2	4	2	98	49	49	0	0	0	S Muthusamy	SA	2019	2019	NOT OUT
	HM Amla (SA)	2004-2019	124	215	16	9282	311	46.64	28	41	13	HM Amla	SA	2004	2019	NOT OUT
	F du Plessis (SA)	2012-2019	62	106	14	3799	137	41.29	9	21	9	F du Plessis	SA	2012	2019	OUT
	Q de Kock (SA)	2014-2019	44	74	5	2683	129	38.88	5	18	5	Q de Kock	SA	2014	2019	NOT OUT
	D Elgar (SA)	2012-2019	60	104	9	3666	199	38.58	12	13	10	D Elgar	SA	2012	2019	OUT
	AK Markram (SA)	2017-2019	20	37	0	1424	152	38.48	4	6	5	AK Markram	SA	2017	2019	OUT

# Project Flow – Question 10

## ❖ Question

Create a View named ‘Batting\_Order\_HighestCenturyScorers\_SA’ Using the data given, considering the players who were active in the year of 2019, create a set of batting order of best 6 players using the selection criteria of those who have highest number of 100s across all matches for South Africa.

## ❖ Understanding:-

Here we are creating a view by extracting best 6 players with highest number of centuries who played for SA in the year 2019.

## Code snippet:-

```
create view Batting_Order_HighestCenturyScorers_SA as
select * from `icc test batting figures (1)`
where (Start_Year>=2019 or End_Year = 2019) and Country like '%SA%'
order by `100` desc limit 6;
select * from Batting_Order_HighestCenturyScorers_SA;
```

## Solution:-

	Player	Span	Mat	Inn	NO	Runs	HS	Avg	100	50	0	Player_Name	Country	Start_Year	End_Year	Status
▶	HM Amla (SA)	2004-2019	124	215	16	9282	311	46.64	28	41	13	HM Amla	SA	2004	2019	NOT OUT
	D Elgar (SA)	2012-2019	60	104	9	3666	199	38.58	12	13	10	D Elgar	SA	2012	2019	OUT
	F du Plessis (SA)	2012-2019	62	106	14	3799	137	41.29	9	21	9	F du Plessis	SA	2012	2019	OUT
	Q de Kock (SA)	2014-2019	44	74	5	2683	129	38.88	5	18	5	Q de Kock	SA	2014	2019	NOT OUT
	AK Markram (SA)	2017-2019	20	37	0	1424	152	38.48	4	6	5	AK Markram	SA	2017	2019	OUT
	T Bavuma (SA)	2014-2019	39	65	7	1812	102	31.24	1	13	7	T Bavuma	SA	2014	2019	NOT OUT

# Project Flow – Question 11

## ❖ Question

Using the data given, Give the number of player\_played for each country.

Code snippet:-

```
select Country,count(*) as count from `icc test batting figures (1)` group by Country;
```

Solution:-

	Country	count
▶	INDIA	277
	AUS	437
	SA	333
	ENG	674
	SL	147
	WI	312
	PAK	225

# Project Flow – Question 12

- ❖ Question

Using the data given, Give the number of player\_played for Asian and Non-Asian continent

- ❖ Understanding:-

Firstly we are segregating the countries into Asian and Non-Asian continent and then counting the number of players belonging to the same.

Code snippet:-

```
select continent,count(*) as Count from  
(select *, case  
when country in ('INDIA','SL','PAK','BDESH','AFG') then 'Asian'  
else 'Non-Asian' end as Continent  
FROM `icc test batting figures (1)` temp  
group by continent ;
```

Solution:-

	Continent	Count
▶	Asian	762
	Non-Asian	2151

# PART-B

## Project Flow – Question 13

### ❖ Question

Company sells the product at different discounted rates. Refer actual product price in product table and selling price in the order item table. Write a query to find out total amount saved in each order then display the orders from highest to lowest amount saved.

### ❖ Understanding:-

We are calculating the total amount saved in each order by subtracting the selling price from the actual product price, and then display the orders in descending order based on the amount saved.

Code snippet:-

```
use supply_chain;
select orderid,sum(p.unitprice-o.unitprice) as Total_Amount_saved
from orderitem o inner join product p on o.ProductId = p.id
group by orderid
order by Total_Amount_saved desc;
```

Solution:-

	orderid	Total_Amount_saved
▶	113	92.24
	125	82.70
	232	76.95
	82	67.39
	104	62.85
	170	60.20
	177	58.80

# Project Flow – Question 14

## ❖ Question

Mr. Kavin want to become a supplier. He got the database of "Richard's Supply" for reference. Help him to pick:

- a. List few products that he should choose based on demand
- b. Who will be the competitors for him for the products suggested in above questions

Understanding:-

- a. Based on the database of "Richard's Supply," we are assisting Mr. Kavin by listing high-demand products he should consider as a supplier and identify potential competitors for those products.

a. List few products that he should choose based on demand

```
select productid,productName,count(*) as 'No_of_orders_placed'  
from orderitem oi join product p on p.id = oi.productid  
group by productid order by count(*) desc;
```

Solution:-

	productid	productName	No_of_orders_placed
▶	59	Radette Courdavault	54
	31	Gorgonzola Telino	51
	24	Guaraná Fantástica	51
	60	Camembert Pierrot	51
	56	Gnocchi di nonna Alice	50
	62	Tarte au sucre	48
	41	Jack's New England Clam Chowder	47
	.	.	.

b. Who will be the competitors for him for the products suggested in above questions

```
select productid,productName,count(*) as 'No_of_orders_placed' ,CompanyName as 'Cometitors_Company_Name'  
from orderitem oi join product p on p.id = oi.productid join supplier s on s.id = p.SupplierId  
group by productid order by count(*) desc;
```

Solution:-

	productid	productName	No_of_orders_placed	Cometitors_Company_Name
▶	59	Radette Courdavault	54	Gai pâturage
	60	Camembert Pierrot	51	Gai pâturage
	24	Guaraná Fantástica	51	Refrescos Americanas LTDA
	31	Gorgonzola Telino	51	Formaggi Fortini s.r.l.
	56	Gnocchi di nonna Alice	50	Pasta Buttini s.r.l.
	62	Tarte au sucre	48	Forêts d'éables
	41	Jack's New England Clam Chowder	47	New England Seafood Cannery

# Project Flow – Question 15

## ❖ Question

Create a combined list to display customers and suppliers details considering the following criteria

- a. Both customer and supplier belong to the same country
- b. Customer who does not have supplier in their country
- c. Supplier who does not have customer in their country

a. Both customer and supplier belong to the same country

```
select distinct c.* , s.*  
from customer c  join orders o join orderitem oi join product p join supplier s  
on c.id = o.customerid and o.id = oi.orderid and oi.productid = p.id and p.supplierid = s.id  
where c.Country = s.Country ;
```

Solution:-

	Id	FirstName	LastName	City	Country	Phone	Id	CompanyName	ContactName	ContactTitle	City	Country	Phone	Fax
▶	53	Simon	Crowther	London	UK	(171) 555-7733	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	(171) 555-2222	NULL
	72	Hari	Kumar	London	UK	(171) 555-1717	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	(171) 555-2222	NULL
	19	Ann	Devon	London	UK	(171) 555-0297	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	(171) 555-2222	NULL
	16	Elizabeth	Brown	London	UK	(171) 555-2282	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	(171) 555-2222	NULL
	4	Thomas	Hardy	London	UK	(171) 555-7788	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	(171) 555-2222	NULL
	38	Helen	Bennett	Cowes	UK	(198) 555-8888	1	Exotic Liquids	Charlotte Cooper	NULL	London	UK	(171) 555-2222	NULL

b. Customer who does not have supplier in their country

```
select * from customer where Country not in (select country from supplier);
```

Solution:-

	Id	FirstName	LastName	City	Country	Phone
▶	2	Ana	Trujillo	México D.F.	Mexico	(5) 555-4729
	3	Antonio	Moreno	México D.F.	Mexico	(5) 555-3932
	12	Patricia	Simpson	Buenos Aires	Argentina	(1) 135-5555
	13	Francisco	Chang	México D.F.	Mexico	(5) 555-3392
	14	Yang	Wang	Bern	Switzerland	0452-076545
	20	Roland	Mendel	Graz	Austria	7675-3425
	28	Lino	Rodriguez	Lisboa	Portugal	(1) 354-2534

c. Supplier who does not have customer in their country

```
select * from customer where Country not in (select country from supplier);
```

## Solution:-

# Project Flow – Question 16

- ❖ Write the question

Every supplier supplies specific products to the customers. Create a view of suppliers and total sales made by their products and write a query on this view to find out top 2 suppliers (using windows function) in each country by total sales done by the products.

- ❖ Question understanding:-

## Code snippet:-

```
create view Total_Sales as
select s.CompanyName,s.country ,sum(oi.UnitPrice*Quantity) as 'Total_sales'
from supplier s join product p join orderitem oi
on s.id = p.supplierid and p.id = oi.productid
group by CompanyName,s.country;

select * from
(select *,dense_rank()over(partition by country order by Total_Sales desc) as rnk from Total_Sales)temp
where rnk <=2;
```

## Solution:-

	CompanyName	Total_sales	country	rnk
▶	Pavlova, Ltd.	115386.05	Australia	1
	G'day, Mate	69636.60	Australia	2
	Refrescos Americanas LTDA	4782.60	Brazil	1
	Forêts d'érables	66266.70	Canada	1
	Ma Maison	24633.00	Canada	2
	Lyngbysild	10884.50	Denmark	1
	Karkki Oy	29804.00	Finland	1
	...			

# Project Flow – Question 17

- ❖ Question

Find out for which products, UK is dependent on other countries for the supply. List the countries which are supplying these products in the same list.

- ❖ Understanding:-

Here we are identifying the products for which the UK is reliant on other countries for the supply, and provide a list of the countries that are supplying these products in a combined list.

## Code snippet of approach1:-

```
-- 1st Approach(Considered all products)
select ProductName, Country from Supplier as su join Product as p on su.id = p.supplierid
where Country not like '%uk%';
```

## Solution:-

	ProductName	Country
1	Pavlova	Australia
2	Alice Mutton	Australia
3	Carnarvon Tigers	Australia
4	Vegie-spread	Australia
5	Outback Lager	Australia
6	Manjimup Dried Apples	Australia
7	Filo Mix	Australia
8		

## Code snippet of approach 2:-

```
-- 2nd Approach (Based on Customers)
select distinct productname ,(select country from supplier s where s.Id = p.SupplierId)
as Manufacturing_country
from customer c join orders o join orderitem oi join product p
on c.id = o.customerid and o.id = oi.OrderId and oi.ProductId = p.Id
where Country = 'UK' and ProductName not in
(select ProductName from supplier s join product p on s.id = p.supplierid where country = 'uk');
```

## Solution:-

	productname	Manufacturing_country
▶	Guaraná Fantástica	Brazil
	Ravioli Angelo	Italy
	Konbu	Japan
	Valkoinen suklaa	Finland
	Gnocchi di nonna Alice	Italy
	Chocolade	Netherlands
	Outback Lager	Australia

# Project Flow – Question 18

- ❖ Question

Create two tables as ‘customer’ and ‘customer\_backup’ as follow -

**‘customer’ table attributes** - Id, FirstName, LastName, Phone

**‘customer\_backup’ table attributes** - Id, FirstName, LastName, Phone

- ❖ Create a trigger in such a way that It should insert the details into the ‘customer\_backup’ table when you delete the record from the ‘customer’ table automatically.

## Code snippet:-

```
Create table customer_backup(id int, FirstName varchar(40), LastName varchar(40), City varchar(40), Country varchar(40), Phone varchar(20));

create trigger customer_backup
before delete on customer
for each row
insert into customer_backup
values(old.id,old.FirstName,old.LastName,old.City,old.Country,old.Phone);

set foreign_key_checks = 0;

delete from customer where id =1;
```

## Solution:-

	ID	FirstName	LastName	City	Country	Phone
▶	1	Maria	Anders	Berlin	Germany	030-0074321

# Major Challenge

- ❖ In Part A usage of substring\_index and trimming for the required output .
- ❖ In Part B question no.5 due to multiple perspectives to the question we presented two approaches.

# Conclusions

The skills learnt doing this mini project are:-

- ❖ Learnt usage of substring\_indexs.
- ❖ Learnt usage of trim.
- ❖ implementation of window functions, sub-queries.
- ❖ Developing the ability to write complex SQL queries to retrieve, update, and manipulate data in a database.
- ❖ Coordinating tasks within the team, assigning roles and responsibilities, and ensuring that everyone is aligned with the project goals.

THANK YOU