SQL_PROJECT_ZOMATO DATASET

---***QUESTION 1: WHAT IS THE TOTAL AMOUNT EACH CUSTOMER SPENT ON ZOMATO? ***---

```
SELECT S.USERID AS CUSTOMER, SUM(P.PRICE) AS TOTAL_SALES
FROM SALES AS S
JOIN PRODUCT AS P
ON S.PRODUCT_ID = P.PRODUCT_ID
GROUP BY 1
ORDER BY 1;
```

Results | Chart

	CUSTOMER	TOTAL_SALES
1	1	5,230
2	2	2,510
3	3	4,570

---***QUESTION 2: HOW MANY DAYS HAS EACH CUSTOMER VISITED ZOMATO? ***---

```
SELECT USERID,COUNT(CREATED_DATE) AS VISIT_COUNT
FROM SALES
GROUP BY 1
ORDER BY 1;
```

Results | Chart

	USERID	VISIT_COUNT
1	1	7
2	2	4
3	3	5

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---***QUESTION 3: WHAT WAS THE FIRST PRODUCT PURCHASED BY EACH CUSTOMER? ***---

```
SELECT * FROM
(SELECT *, RANK() OVER (PARTITION BY USERID ORDER BY CREATED_DATE) RANK
FROM SALES)
WHERE RANK = 1
```

Results Chart

	USERID	CREATED_DATE	PRODUCT_ID	RANK
1	1	2016-03-11	1	1
2	2	2017-09-24	1	1
3	3	2016-11-10	1	1

---***QUESTION 4: WHAT IS THE MOST PURCHASED ITEM ON THE MENU AND HOW MANY TIMES WAS IT PURCHASED BY ALL CUSTOMERS? ***---

```
SELECT USERID, PRODUCT_ID,COUNT(PRODUCT_ID) AS NO_OF_TIMES_PURCHASED FROM SALES
WHERE PRODUCT_ID =
(SELECT PRODUCT_ID
FROM SALES
GROUP BY PRODUCT_ID
ORDER BY COUNT(PRODUCT_ID) DESC LIMIT 1)
GROUP BY 1,2
ORDER BY 1;
```

Results Chart

	USERID	PRODUCT_ID	NO_OF_TIMES_PURCHASED
1	1	2	3
2	2	2	1
3	3	2	3

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---***QUESTION 5: WHICH ITEM WAS THE MOST POPULAR FOR EACH OF THE CUSTOMER? ***---

```
SELECT *
FROM
(SELECT USERID, PRODUCT_ID,COUNT(PRODUCT_ID) AS OCCURRENCE,RANK() OVER (PARTITION BY USERID ORDER BY OCCURRENCE DESC) AS OCCURRENCE_RANK
FROM SALES
GROUP BY 1,2
ORDER BY 1,3 DESC)
WHERE OCCURRENCE_RANK = 1;
```

Results | Chart

	USERID	PRODUCT_ID	OCCURRENCE	OCCURRENCE_RANK
1	1	2	3	1
2	2	3	2	1
3	3	2	3	1

---***QUESTION 6: WHICH ITEM WAS PURCHASED FIRST BY THE CUSTOMER AFTER THEY BECAME A MEMBER? ***---

```
SELECT * FROM
(SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,G.GOLD_SIGNUP_DATE, RANK() OVER (PARTITION BY S.USERID ORDER BY CREATED_DATE) AS RNK
FROM SALES AS S
INNER JOIN GOLDUSERS_SIGNUP AS G
ON S.USERID = G.USERID
WHERE G.GOLD_SIGNUP_DATE < S.CREATED_DATE)
WHERE RNK = 1
```

Results | Chart

	USERID	CREATED_DATE	PRODUCT_ID	GOLD_SIGNUP_DATE	...	RNK
1	1	2018-03-19	3	2017-09-22		1
2	3	2017-12-07	2	2017-04-21		1

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---***QUESTION 7: WHICH ITEM WAS PURCHASED JUST BEFORE THE CUSTOMER BECAME A MEMBER? ***---

```
SELECT * FROM
(SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,G.GOLD_SIGNUP_DATE, RANK() OVER (PARTITION BY S.USERID ORDER BY CREATED_DATE DESC) AS RNK
FROM SALES AS S
INNER JOIN GOLDUSERS_SIGNUP AS G
ON S.USERID = G.USERID
WHERE G.GOLD_SIGNUP_DATE >= S.CREATED_DATE)
WHERE RNK = 1
```

Results | Chart

	USERID	CREATED_DATE	PRODUCT_ID	GOLD_SIGNUP_DATE	···	RNK
1	1	2017-04-19	2	2017-09-22		1
2	3	2016-12-20	2	2017-04-21		1

---***QUESTION 8: WHAT ARE THE TOTAL ORDERS AND AMOUNT SPENT FOR EACH MEMBER BEFORE THEY BECAME MEMBER? ***---

```
WITH ABC(USERID,CREATED_DATE,PRODUCT_ID,GOLD_SIGNUP_DATE,PRODUCT_NAME,PRICE)
AS
(SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,G.GOLD_SIGNUP_DATE,P.PRODUCT_NAME,P.PRICE
FROM SALES AS S
INNER JOIN GOLDUSERS_SIGNUP AS G
ON S.USERID = G.USERID
LEFT OUTER JOIN PRODUCT AS P
ON S.PRODUCT_ID = P.PRODUCT_ID
WHERE G.GOLD_SIGNUP_DATE >= S.CREATED_DATE)
SELECT USERID,GOLD_SIGNUP_DATE,COUNT(CREATED_DATE) AS TOTAL_ORDERS_PURCHASED, SUM(PRICE) AS TOTAL_AMOUNT_SPENT
FROM ABC
GROUP BY 1,2
```

Results | Chart

	USERID	GOLD_SIGNUP_DATE	TOTAL_ORDERS_PURCHASED	···	TOTAL_AMOUNT_SPENT
1	1	2017-09-22	5		4,030
2	3	2017-04-21	3		2,720

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---***QUESTION 9: IF BUYING EACH PRODUCT GENERATES POINTS FOR e.g. 5RS = 2 ZOMATO POINTS AND EACH PRODUCT HAS DIFFERENT PURCHASING POINTS FOR e.g. FOR P1 5RS =1 ZOMATO POINT, FOR P2 10RS = 5 ZOMATO POINTS AND P3 5RS = 1 ZOMATO POINTS.

---**CALCULATE POINTS COLLECTED BY EACH CUSTOMERS AND FOR WHICH PRODUCT MOST POINTS HAVE BEEN GIVEN TILL NOW? ***---

--SOLUTION PART-1:

```
SELECT USERID,SUM(ZOMATO_POINTS) AS TOTAL_POINTS_EARNED,SUM(ZOMATO_POINTS)*2.5 AS TOTAL_MONEY_EARNED
FROM
(WITH ZP (USERID,CREATED_DATE,PRODUCT_ID,PRODUCT_NAME,PRICE)
AS
(SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,P.PRODUCT_NAME,P.PRICE FROM SALES AS S
LEFT JOIN PRODUCT AS P
ON S.PRODUCT_ID = P.PRODUCT_ID)
SELECT *,
CASE
WHEN PRODUCT_NAME = 'p1' THEN ROUND((PRICE/5),2)
WHEN PRODUCT_NAME = 'p2' THEN ROUND((PRICE/2),2)
WHEN PRODUCT_NAME = 'p3' THEN ROUND((PRICE/5),2)
END AS ZOMATO_POINTS
FROM ZP)
GROUP BY 1
ORDER BY 2 DESC
```

Results | Chart

	USERID	TOTAL_POINTS_EARNED	TOTAL_MONEY_EARNED
1	1	1829.00	4572.500
2	3	1697.00	4242.500
3	2	763.00	1907.500

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--SOLUTION PART-2:

```
SELECT PRODUCT_NAME,SUM(ZOMATO_POINTS)
FROM
(WITH ZP (USERID,CREATED_DATE,PRODUCT_ID,PRODUCT_NAME,PRICE)
AS
(SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,P.PRODUCT_NAME,P.PRICE FROM SALES AS S
LEFT JOIN PRODUCT AS P
ON S.PRODUCT_ID = P.PRODUCT_ID)
SELECT *,
CASE
WHEN PRODUCT_NAME = 'p1' THEN ROUND((PRICE/5),2)
WHEN PRODUCT_NAME = 'p2' THEN ROUND((PRICE/2),2)
WHEN PRODUCT_NAME = 'p3' THEN ROUND((PRICE/5),2)
END AS ZOMATO_POINTS
FROM ZP)
GROUP BY 1
ORDER BY 2 DESC LIMIT 1
```

Results | Chart

	PRODUCT_NAME	SUM(ZOMATO_POINTS)
1	p2	3045.00

---***QUESTION 10: IN THE FIRST YEAR AFTER A CUSTOMER JOINS THE GOLD PROGRAM (INCLUDING THEIR JOIN DATE) IRRESPECTIVE OF WHAT THE CUSTOMER HAS PURCHASED THEY EARN 5 ZOMATO POINTS FOR EVERY 10RS SPENT. WHO EARNED MORE 1 OR 3? AND WHAT WAS THEIR POINTS EARNINGS IN THEIR FIRST YEAR? ***---

```
SELECT USERID,PRICE*0.5 AS TOTAL_POINTS FROM
(SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,G.GOLD_SIGNUP_DATE,P.PRODUCT_NAME,P.PRICE,S.CREATED_DATE - G.GOLD_SIGNUP_DATE AS DATE_DIFF
FROM SALES AS S
INNER JOIN GOLDUSERS_SIGNUP AS G
ON S.USERID = G.USERID
LEFT OUTER JOIN PRODUCT AS P
ON S.PRODUCT_ID = P.PRODUCT_ID
WHERE DATE_DIFF >=0 and DATE_DIFF <= 365)
GROUP BY 1,2;
```

Results | Chart

	USERID	TOTAL_POINTS
1	1	165.0
2	3	435.0

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---***QUESTION 11: RANK ALL THE TRANSACTIONS OF THE CUSTOMER? ***---

```
SELECT S.USERID,S.CREATED_DATE,S.PRODUCT_ID,P.PRODUCT_NAME,P.PRICE,DENSE_RANK() OVER (PARTITION BY USERID ORDER BY PRICE,CREATED_DATE) RNK
FROM SALES AS S
LEFT JOIN PRODUCT AS P
ON S.PRODUCT_ID = P.PRODUCT_ID
```

Results | Chart

	USERID	CREATED_DATE	PRODUCT_ID	PRODUCT_NAME	PRICE	RNK
1	1	2016-05-20	3	p3	330	1
2	1	2018-03-19	3	p3	330	2
3	1	2017-03-11	2	p2	870	3
4	1	2017-04-19	2	p2	870	4
5	1	2019-10-23	2	p2	870	5
6	1	2016-03-11	1	p1	980	6
7	1	2016-11-09	1	p1	980	7
8	2	2018-09-10	3	p3	330	1
9	2	2020-07-20	3	p3	330	2
10	2	2017-11-08	2	p2	870	3
11	2	2017-09-24	1	p1	980	4
12	3	2016-12-15	2	p2	870	1
13	3	2016-12-20	2	p2	870	2
14	3	2017-12-07	2	p2	870	3
15	3	2016-11-10	1	p1	980	4
16	3	2019-12-18	1	p1	980	5

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---*QUESTION 12: RANK ALL THE TRANSACTIONS FOR EACH MEMBER WHENEVER THEY ARE A ZOMATO GOLD MEMBER FOR EVERY NON-GOLD MEMBER TRANSACTION MARK AS NA? ***-**

```
SELECT A.* , CASE
WHEN RNK = 0 THEN 'NA' ELSE RNK END AS RRNK FROM
(SELECT *,CAST((CASE
WHEN GOLD_SIGNUP_DATE IS NULL THEN 0 ELSE
RANK() OVER (PARTITION BY S.USERID ORDER BY CREATED_DATE DESC) END)AS VARCHAR) AS RNK
FROM SALES AS S
LEFT JOIN GOLDUSERS_SIGNUP AS G
ON S.USERID = G.USERID and CREATED_DATE >= GOLD_SIGNUP_DATE) AS A
```

Results | Chart

	USERID	CREATED_DATE	PRODUCT_ID	USERID_2	GOLD_SIGNUP_DATE	RNK	RRNK
1	1	2019-10-23	2	1	2017-09-22	1	1
2	1	2018-03-19	3	1	2017-09-22	2	2
3	1	2017-04-19	2	null	null	0	NA
4	1	2017-03-11	2	null	null	0	NA
5	1	2016-11-09	1	null	null	0	NA
6	1	2016-05-20	3	null	null	0	NA
7	1	2016-03-11	1	null	null	0	NA
8	2	2020-07-20	3	null	null	0	NA
9	2	2018-09-10	3	null	null	0	NA
10	2	2017-11-08	2	null	null	0	NA
11	2	2017-09-24	1	null	null	0	NA
12	3	2019-12-18	1	3	2017-04-21	1	1
13	3	2017-12-07	2	3	2017-04-21	2	2
14	3	2016-12-20	2	null	null	0	NA
15	3	2016-12-15	2	null	null	0	NA
16	3	2016-11-10	1	null	null	0	NA

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