

Deliverable 3

Individual Contribution			
CWID	Name	Contribution (description)	Percent Contribution
A20580060	Anshul Dani	Queries 1-5 and documentation	33.3%
A20576599	Sanjana Waghray	Queries 6-10 and documentation	33.3%
A20545641	Snehal Phadatare	Queries 11-15 and documentation	33.3%

3rd Deliverable (Test a variety of SQL queries) – Test a variety of SQL queries of your choice on your database. Additional points will be awarded for queries derived from interesting use cases. Ensure that you test at least 15 different (including advanced window features, and OLAP) queries and provide: 1) the query explanation/description, 2) the SQL statements/commands, and 3) the output/result for each query

1

Description: Retrieve all records with category 'Food queries'

SELECT * FROM expense_data_1 WHERE Category = 'Food';

Result Grid										
Filter Rows:		Search		Export:						
Date	Account	Category	Subcategory	Note	INR	Income/Expense	Note_[0]	Amount	Currency	Account_[...]
3/2/2022 10:11	CUB - online payment	Food		Brownie	50	Expense		50	INR	50
3/1/2022 19:50	CUB - online payment	Food		Dinner	78	Expense		78	INR	78
3/1/2022 18:22	CUB - online payment	Food		Snacks	67	Expense		67	INR	67
2/28/2022 11:56	CUB - online payment	Food		Pizza	339	Expense		339	INR	339
2/27/2022 15:29	CUB - online payment	Food		Lunch	243	Expense		243	INR	243
2/26/2022 20:16	CUB - online payment	Food			25	Expense		25	INR	25
2/26/2022 14:07	CUB - online payment	Food		Snacks	40	Expense		40	INR	40
2/26/2022 1:39	CUB - online payment	Food		Tea lights	84	Expense		84	INR	84
2/25/2022 12:08	CUB - online payment	Food			33	Expense		33	INR	33
2/24/2022 22:21	CUB - online payment	Food		Creamstone	289	Expense		289	INR	289
2/24/2022 19:15	CUB - online payment	Food		Tamen	325	Expense		325	INR	325
2/23/2022 16:06	CUB - online payment	Food		Eggs	83	Expense		83	INR	83
2/20/2022 15:24	CUB - online payment	Food		Lunch	200	Expense		200	INR	200
2/19/2022 23:03	CUB - online payment	Food		Random st...	111	Expense		111	INR	111
2/19/2022 21:57	CUB - online payment	Food		Snacks	250	Expense		250	INR	250

expense_data_1 13

Re

2

Description: List total amounts per category






```
SELECT Category, SUM(Amount) AS TotalAmount
```

```
FROM expense_data
```

```
GROUP BY Category
```

```
ORDER BY TotalAmount DESC
```

```
LIMIT 3;
```

Result Grid   Filter Rows: <input type="text" value="Search"/> Export:  Fetch rows: 				
Category	TotalAmount			
Other	37868			
Food	23397			
Allowance	14000			

3

Description: List the categories with more than 5 transactions

```
SELECT Category, COUNT(*) AS TransactionCount
```

```
FROM expense_data
```

```
GROUP BY Category
```

```
HAVING TransactionCount > 5;
```

Result Grid   Filter Rows: <input type="text" value="Search"/> Export: 				
Category	TransactionCou...			
Food	156			
Other	60			
Transportation	31			
Household	6			
Apparel	7			
Allowance	6			

4

Description: Find the earliest transaction date for each account

```
SELECT Account, MIN(Date) AS FirstTransactionDate
FROM expense_data_1
GROUP BY Account;
```

Result Grid		Filter Rows: <input type="text" value="Search"/>	Export: 	
Account	FirstTransactionD...			
CUB - online payment	1/1/2022 21:45			
Cash	12/8/2021 14:15			

5

Description: Count the number of transactions for each Note containing the word

'Food'SELECT Note, COUNT(*) AS TransactionCount

FROM expense_data_1

WHERE Note LIKE '%Food%'

GROUP BY Note;

[illegible]

6

Description: List all transactions where the amount is above the average amount for that category

Result Grid		Filter Rows:		Search		Export:						
Date	Account	Category	Subcategory	Note	INR	Income/Expense	Note_[0]	Amount	Currency	Account_[...]	Category	AvgCategoryAm
11/21/2021 15:50	CUB - online payment	Food		Lunch	875	Expense		875	INR	875	Food	149.9808
11/23/2021 22:53	CUB - online payment	Food		Dinner	179	Expense		179	INR	179	Food	149.9808
11/26/2021 14:14	CUB - online payment	Food		Lunch with company	150	Expense		150	INR	150	Food	149.9808
11/26/2021 21:56	CUB - online payment	Food		Beer	150	Expense		150	INR	150	Food	149.9808
11/28/2021 13:10	CUB - online payment	Food		Zomato	269	Expense		269	INR	269	Food	149.9808
12/1/2021 14:00	CUB - online payment	Food		Lunch with company	160	Expense		160	INR	160	Food	149.9808
12/2/2021 20:07	CUB - online payment	Food		Ice cream	504	Expense		504	INR	504	Food	149.9808
12/4/2021 10:13	CUB - online payment	Food		Breakfast	200	Expense		200	INR	200	Food	149.9808
12/4/2021 21:05	CUB - online payment	Food		Dinner	324	Expense		324	INR	324	Food	149.9808

Result 18

```
SELECT * FROM expense_data WHERE Note LIKE '%dinner%';
```

Description: Retrieve the first and last transaction dates in the dataset

SELECT MIN(Date) AS FirstTransactionDate, MAX(Date) AS LastTransactionDate FROM
expense_data;

Result Grid   Filter Rows: <input type="text" value="Search"/> Export: 				
FirstTransactionD...	LastTransactionDa...			
1/1/2022 21:45	3/2/2022 10:11			




9

Description: List total amounts per category

SELECT Category, SUM(Amount) AS TotalAmount

FROM expense_data

GROUP BY Category;

Result Grid   Filter Rows: <input type="text" value="Search"/> Export: 				
Category	TotalAmount			
Food	23397			
Other	37868			
Transportation	9204			
Social Life	2514			
Household	12188			
Apparel	3388			
Education	1400			
Salary	8000			
Allowance	14000			
Result 21				




10

Description: Count the number of unique notes per category

SELECT Category, COUNT(DISTINCT Note) AS UniqueNotes

FROM expense_data_1

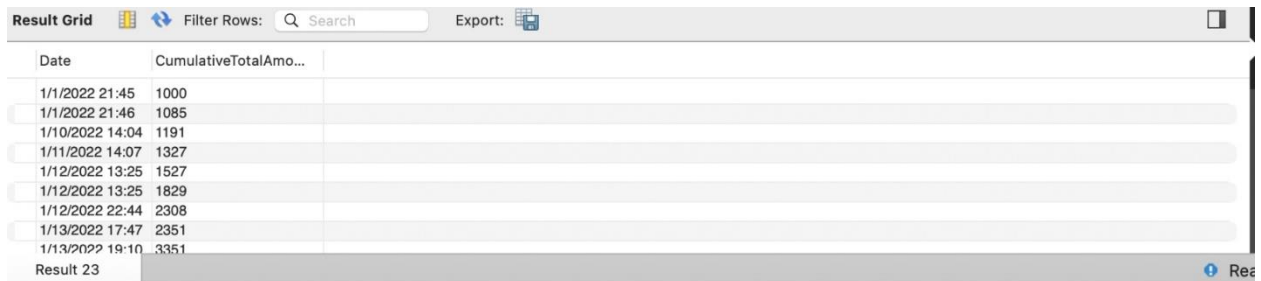
GROUP BY Category

Result Grid   Filter Rows: <input type="text" value="Search"/> Export: 				
Category	UniqueNotes			
Allowance	1			
Apparel	7			
Beauty	1			
Education	1			
Food	80			
Gift	1			
Household	5			
Other	39			
Partly cash	1			
Result 22				

11

Description: Calculate cumulative total amount by date in chronological order

```
SELECT Date,  
  
SUM(Amount) OVER (ORDER BY Date ROWS BETWEEN UNBOUNDED PRECEDING AND  
CURRENT ROW) AS CumulativeTotalAmount  
  
FROM expense_data  
  
ORDER BY Date;
```



The screenshot shows a database query result grid with the following data:

Date	CumulativeTotalAmo...
1/1/2022 21:45	1000
1/1/2022 21:46	1085
1/10/2022 14:04	1191
1/11/2022 14:07	1327
1/12/2022 13:25	1527
1/12/2022 13:25	1829
1/12/2022 22:44	2308
1/13/2022 17:47	2351
1/13/2022 19:10	3351

Result 23

12

Description: Find the number of transactions that occurred for each account

```
SELECT Account, COUNT(*) AS TransactionCount  
  
FROM expense_data  
  
GROUP BY Account;
```



The screenshot shows a database query result grid with the following data:

Account	TransactionCou...
CUB - online payment	276
Cash	1

13

Description: Count the number of transactions by currency type

```
SELECT Currency, COUNT(*) AS TransactionCount
FROM expense_data
GROUP BY Currency;
```

Result Grid

Filter Rows:

Q

Search

Export:

Currency	TransactionCou...
INR	276
USD	1

14

Description: Count transactions per day

```
SELECT Date, COUNT(*) AS DailyTransactionCount
FROM expense_data
GROUP BY Date;
```

Result Grid

Filter Rows:

Q

Search

Export:

Date	DailyTransactionCo...	
3/2/2022 10:11	2	
3/1/2022 19:50	1	
3/1/2022 18:56	1	
3/1/2022 18:22	2	
3/1/2022 18:21	1	
2/28/2022 11:56	1	
2/28/2022 11:45	1	
2/27/2022 15:29	1	
2/26/2022 20:16	1	

Result 26

15

Description: Identify the account with the most unique transaction dates

```
SELECT Account, COUNT(DISTINCT Date) AS UniqueTransactionDates
FROM expense_data
GROUP BY Account
```

ORDER BY UniqueTransactionDates DESC

LIMIT 1;

Result Grid		Filter Rows:	Search	Export:	Fetch rows:	
Account	UniqueTransactionDat...					
CUB - online payment	240					