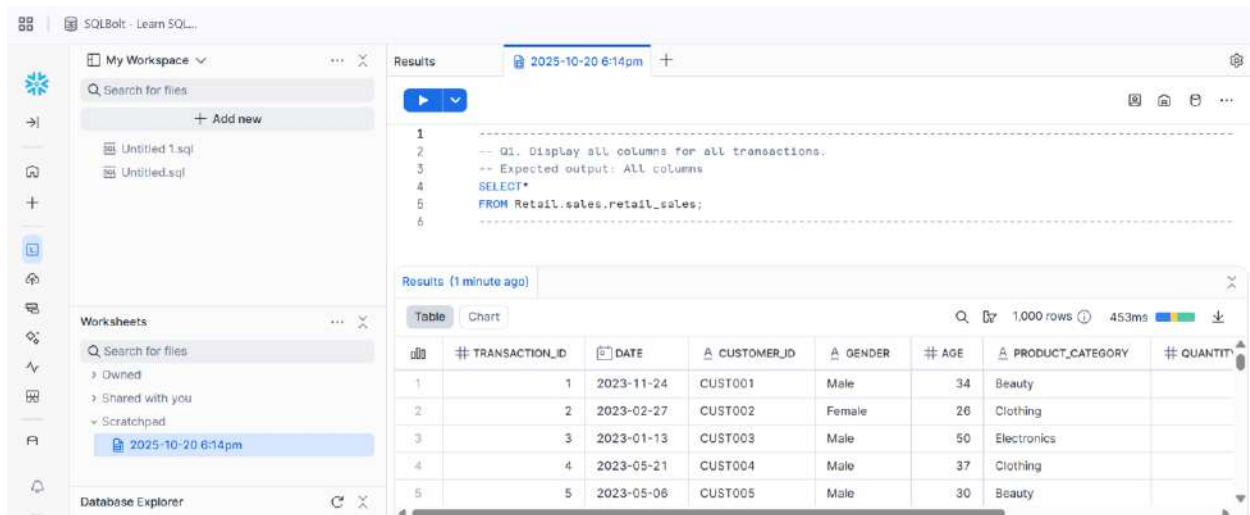


ANDILE DUBE

## Practical 1: Basic SQL Syntax

### Question 1:



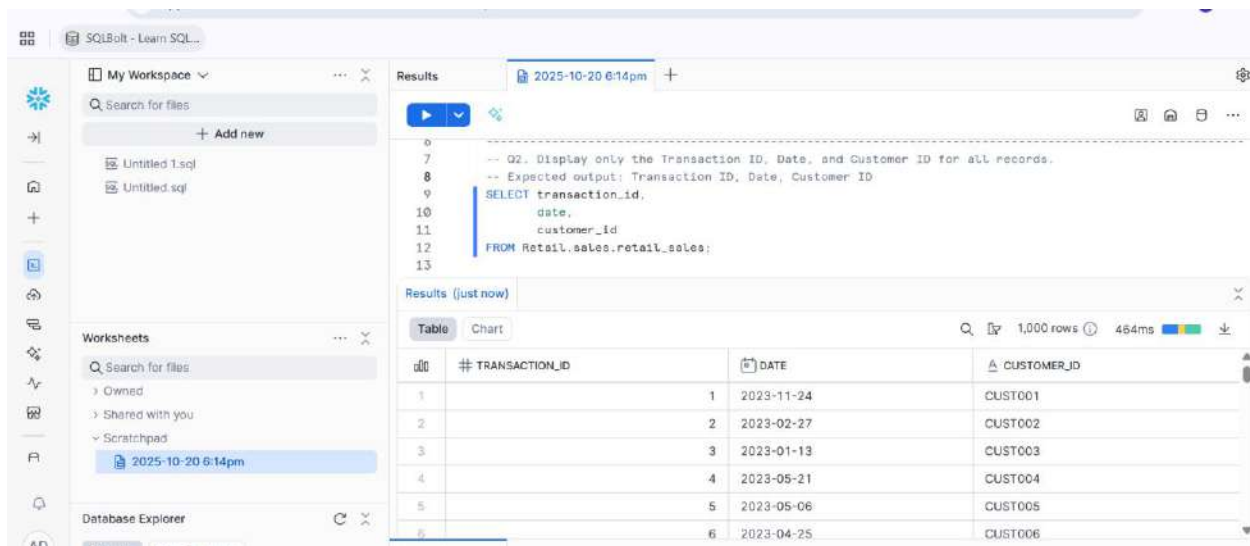
The screenshot shows the SQLBolt interface with the first query executed. The query is:

```
1 -- Q1. Display all columns for all transactions.
2 -- Expected output: All columns
3 SELECT*
4 FROM Retail.sales.retail_sales;
```

The results table shows 5 rows of data:

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	2	2023-02-27	CUST002	Female	26	Clothing	
3	3	2023-01-13	CUST003	Male	50	Electronics	
4	4	2023-05-21	CUST004	Male	37	Clothing	
5	5	2023-05-06	CUST005	Male	30	Beauty	

### Question 2:



The screenshot shows the SQLBolt interface with the second query executed. The query is:

```
6 -- Q2. Display only the Transaction ID, Date, and Customer ID for all records.
7 -- Expected output: Transaction ID, Date, Customer ID
8 SELECT transaction_id,
9        date,
10       customer_id
11 FROM Retail.sales.retail_sales;
```

The results table shows 6 rows of data:

#	TRANSACTION_ID	DATE	CUSTOMER_ID
1	1	2023-11-24	CUST001
2	2	2023-02-27	CUST002
3	3	2023-01-13	CUST003
4	4	2023-05-21	CUST004
5	5	2023-05-06	CUST005
6	6	2023-04-25	CUST006

### Question 3:

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2025-10-20 6:14pm

Results

2025-10-20 6:14pm

```
--Q3. Display all the distinct product categories in the dataset.
--Expected output: Product Category
15 SELECT DISTINCT product_category
16 FROM Retail.sales.retail_sales;
17
18
```

Results (just now)

Table Chart

3 rows 502ms

	PRODUCT_CATEGORY
1	Clothing
2	Beauty
3	Electronics

#### Question 4:

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Worksheets

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Results

2025-10-20 6:14pm

```
--Q4. Display all the distinct gender values in the dataset.
--Expected output: Gender
19 SELECT DISTINCT gender
20 FROM Retail.sales.retail_sales;
21
22
```

Results (just now)

Table Chart

2 rows 431ms

	GENDER
1	Male
2	Female

### Question 5:

The screenshot shows the Snowflake SQL Editor interface. The query editor contains the following SQL code:

```
--Q5. Display all transactions where the Age is greater than 40.
--Expected output: All columns
SELECT *
FROM Retail.sales.retail_sales;
WHERE Age > 40;
```

The results pane shows a table with 5 rows and 8 columns. The columns are: TRANSACTION\_ID, DATE, CUSTOMER\_ID, GENDER, AGE, PRODUCT\_CATEGORY, and QUANTITY. The data is as follows:

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	2	2023-02-27	CUST002	Female	26	Clothing	
3	3	2023-01-13	CUST003	Male	50	Electronics	
4	4	2023-05-21	CUST004	Male	37	Clothing	
5	5	2023-05-06	CUST005	Male	30	Beauty	

### Question 6:

The screenshot shows the Snowflake SQL Editor interface. The query editor contains the following SQL code:

```
--Q6. Display all transactions where the Price per Unit is between 100 and 500.
--Expected output: All columns
SELECT *
FROM Retail.sales.retail_sales;
WHERE "Price per Unit" BETWEEN 100 AND 500;
```

The results pane shows a table with 5 rows and 8 columns. The columns are: TRANSACTION\_ID, DATE, CUSTOMER\_ID, GENDER, AGE, PRODUCT\_CATEGORY, and QUANTITY. The data is as follows:

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	2	2023-02-27	CUST002	Female	26	Clothing	
3	3	2023-01-13	CUST003	Male	50	Electronics	
4	4	2023-05-21	CUST004	Male	37	Clothing	
5	5	2023-05-06	CUST005	Male	30	Beauty	

### Question 7:

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Worksheets

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2025-10-20 6:14pm

Database Explorer

Results

2025-10-20 6:14pm

```

31
32 --07. Display all transactions where the Product Category is either 'Beauty' or
33 --'Electronics'.
34 SELECT *
35 FROM Retail.sales.retail_sales;
36 WHERE "Product Category" IN ('Beauty', 'Electronics');
37

```

Results (just now)

Table Chart

1,000 rows 33ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	2	2023-02-27	CUST002	Female	26	Clothing	
3	3	2023-01-13	CUST003	Male	50	Electronics	
4	4	2023-05-21	CUST004	Male	37	Clothing	
5	5	2023-05-06	CUST005	Male	30	Beauty	

Question 8:

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Worksheets

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Database Explorer

Results

2025-10-20 6:14pm

```

30
37 --08. Display all transactions where the Product Category is not 'Clothing'.
38 --Expected output: All columns
39 SELECT *
40 FROM Retail.sales.retail_sales;
41 WHERE "Product Category" != 'Clothing';
42

```

Results (just now)

Table Chart

1,000 rows 27ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	2	2023-02-27	CUST002	Female	26	Clothing	
3	3	2023-01-13	CUST003	Male	50	Electronics	
4	4	2023-05-21	CUST004	Male	37	Clothing	
5	5	2023-05-06	CUST005	Male	30	Beauty	

Question 9:

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Database Explorer

Results

2025-10-20 6:14pm

```
--D9. Display all transactions where the Quantity is greater than or equal to 3.
--Expected output: All columns
42 SELECT *
43 FROM Retail.sales.retail_sales;
44 WHERE Quantity >= 3;
45
46
47
```

Results (just now)

Table Chart

1,000 rows 29ms

#	TRANSACTION_ID	DATE	CUSTOMER_ID	GENDER	AGE	PRODUCT_CATEGORY	QUANTITY
1	1	2023-11-24	CUST001	Male	34	Beauty	
2	2	2023-02-27	CUST002	Female	26	Clothing	
3	3	2023-01-13	CUST003	Male	50	Electronics	
4	4	2023-05-21	CUST004	Male	37	Clothing	
5	5	2023-05-06	CUST005	Male	30	Beauty	

## Question 10:

app.snowflake.com/af-south-1.aws/be46832/#/workspaces/ws/USER%24/PUBLIC/DEFAULT%24

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Untitled.sql

Worksheets

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2025-10-20 6:14pm

Database Explorer

Results

2025-10-20 6:14pm

```
45 WHERE Quantity >= 3;
46
47 --D10. Count the total number of transactions.
48 --Expected output: Total_Transactions
49 SELECT COUNT(*) AS Total_Transactions
50 FROM Retail.sales.retail_sales;
51
```

Results (1 minute ago)

Table Chart

1 row 29ms

#	TOTAL_TRANSACTIONS
1	1000

### Question 11:

The screenshot shows the Snowflake SQL Bolt interface. The left sidebar contains a 'My Workspace' section with a search bar and a list of files including 'Untitled 1.sql' and 'Untitled.sql'. Below this is a 'Worksheets' section with a search bar and a list of worksheets, including one titled '2025-10-20 6:14pm'. The main area displays a SQL query in a text editor. The query is as follows:

```
--Q11. Find the average Age of customers.  
--Expected output: Average_Age  
SELECT AVG(Age) AS Average_Age  
FROM Retail.sales.retail_sales;
```

Below the query editor, the 'Results' section shows a table with one row and one column, 'AVERAGE\_AGE', with the value 41.392000. The table is titled 'Results (just now)' and shows a single row with the value 41.392000.

### Question 12:

The screenshot shows the Snowflake SQL Bolt interface. The left sidebar contains a 'My Workspace' section with a search bar and a list of files including 'Untitled 1.sql' and 'Untitled.sql'. Below this is a 'Worksheets' section with a search bar and a list of worksheets, including one titled '2025-10-20 6:14pm'. The main area displays a SQL query in a text editor. The query is as follows:

```
--Q12. Find the total quantity of products sold.  
--Expected output: Total_Quantity  
SELECT SUM(Quantity) AS Total_Quantity  
FROM Retail.sales.retail_sales;
```

Below the query editor, the 'Results' section shows a table with one row and one column, 'AVERAGE\_AGE', with the value 41.392000. The table is titled 'Results (just now)' and shows a single row with the value 41.392000.

### Question 13:

SQLBolt - Learn SQL...

My Workspace

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Worksheets

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2025-10-20 6:14pm

Results

2025-10-20 6:14pm

SQL

```
--Q13. Find the maximum Total Amount spent in a single transaction.
--Expected output: Max_Total_Amount
60
61
62 SELECT MAX(Total_Amount) AS Max_Total_Amount
63 FROM Retail.sales.retail_sales;
64
65
66
```

Results (just now)

Table Chart

1 row 24ms

#	MAX_TOTAL_AMOUNT
1	2000

Question 14:

SQLBolt - Learn SQL...

My Workspace

Search for files

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Untitled 1.sql

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Worksheets

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Results

2025-10-20 6:14pm

SQL

```
63 FROM Retail.sales.retail_sales;
64
65 --Q14. Find the minimum Price per Unit in the dataset.
66 --Expected output: Min_Price_per_Unit
67 SELECT MIN(price_per_unit) AS Min_Price_per_Unit
68 FROM Retail.sales.retail_sales;
69
```

Results (just now)

Table Chart

1 row 26ms

#	MIN_PRICE_PER_UNIT
1	25

Question 15:

SQLBolt - Learn SQL...

My Workspace

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Worksheets

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2025-10-20 6:14pm

Results

2025-10-20 6:14pm

SQL

```
69
70 --Q15. Find the number of transactions per Product Category.
71 --Expected output: Product Category, Transaction_Count
72 SELECT Product_Category, COUNT(*) AS Transaction_Count
73 FROM Retail.sales.retail_sales
74 GROUP BY Product_Category;
75
```

Results (just now)

Table Chart

3 rows 430ms

#	PRODUCT_CATEGORY	TRANSACTION_COUNT
1	Clothing	351
2	Beauty	307
3	Electronics	342

Question 16:



Paste

My Workspace

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Worksheets

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2025-10-20 6:14pm

Results

2025-10-20 6:14pm

70

--Q16. Find the total revenue (Total Amount) per gender.

--Expected output: Gender, Total\_Revenue

76

77

78

79

80

81

```
SELECT Gender,SUM(Total_Amount) AS Total_Revenue
FROM Retail.sales.retail_sales
GROUP BY Gender;
```

Results (just now)

Table Chart

2 rows 79ms

	GENDER	TOTAL_REVENUE
1	Male	223160
2	Female	232840

Question 17:

Paste

My Workspace

Search for files

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Untitled 1.sql

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Worksheets

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2025-10-20 6:14pm

Results

2025-10-20 6:14pm

81

--Q17. Find the average Price per Unit per product category.

--Expected output: Product\_Category, Average\_Price

82

83

84

85

86

87

```
SELECT Product_Category,AVG (Price_Per_Unit) AS Average_price
FROM Retail.sales.retail_sales
GROUP BY Product_Category;
```

Results (just now)

Table Chart

3 rows 445ms

	PRODUCT_CATEGORY	AVERAGE_PRICE
1	Beauty	184.055375
2	Clothing	174.287749
3	Electronics	181.900585

Question 18:



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Paste ... Learn SQL...

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Untitled.sql

Worksheets

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2025-10-20 6:14pm

Database Explorer

Results

2025-10-20 6:14pm

```

88 --10,000.
89 --Expected output: Product_Category, Total_Revenue
90
91 SELECT Product_Category, SUM(Total_Amount) AS Total_Revenue
92 FROM Retail.sales.retail_sales
93 GROUP BY Product_Category
94 HAVING SUM(Total_Amount) > 10000;

```

Results (just now)

Table Chart

3 rows 438ms

	PRODUCT_CATEGORY	TOTAL_REVENUE
1	Beauty	143515
2	Clothing	155580
3	Electronics	156905

Question 19:

app.snowflake.com/af-south-1.aws/be46832/#/workspaces/ws/USER%24/PUBLIC/DEFAULT%24

Paste ... Learn SQL...

My Workspace

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Untitled 1.sql

Untitled.sql

Worksheets

Search for files

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2025-10-20 6:14pm

Database Explorer

Results

2025-10-20 6:14pm

```

98
99 SELECT Product_Category, AVG(Quantity) AS Average_Quantity
100 FROM Retail.sales.retail_sales
101 GROUP BY Product_Category
102 HAVING AVG(Quantity) > 2;
103
104
105

```

Results (just now)

Table Chart

3 rows 80ms

	PRODUCT_CATEGORY	AVERAGE_QUANTITY
1	Beauty	2.511401
2	Clothing	2.547009
3	Electronics	2.482456

Question 20:

app.snowflake.com/at-south-1-aws/be45832/#/workspaces/ws/USER%24/PUBLIC/DEFAULT%24

Paste -- It - Learn SQL...

My Workspace

Search for files

+ Add new

Untitled 1.sql

Untitled.sql

Worksheets

Search for files

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2025-10-20 6:14pm

Database Explorer

Objects Data Products

Results 2025-10-20 6:14pm

```
107 transaction_id ,
108 total_amount,
109 CASE
110     WHEN Total_Amount > 1000 THEN 'High'
111 ELSE 'Low'
112 END AS Spending_Level
113 FROM Retail.sales.retail_sales;
114
```

Results (just now)

Table Chart

1,000 rows 436ms

#	TRANSACTION_ID	TOTAL_AMOUNT	SPENDING_LEVEL
1	1	150	Low
2	2	1000	Low
3	3	30	Low
4	4	500	Low
5	5	100	Low
6	6	30	Low

Query History

## Question 21:

app.snowflake.com/at-south-1-aws/be45832/#/workspaces/ws/USER%24/PUBLIC/DEFAULT%24

Paste -- It - Learn SQL...

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Worksheets

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2025-10-20 6:14pm

Database Explorer

Objects Data Products

Results 2025-10-20 6:14pm

```
117 --- 'Senior' if Age >= 60
118 --Expected output: Customer ID, Age, Age_Group
119
120 SELECT
121     Customer_Id,
122     Age,
123     CASE
124         WHEN Age < 18 THEN 'Youth'
```

Results (just now)

Table Chart

1,000 rows 57ms

#	CUSTOMER_ID	AGE	AGE_GROUP
1	CUST001	34	Adult
2	CUST002	26	Youth
3	CUST003	50	Adult
4	CUST004	37	Adult
5	CUST005	30	Adult
6	CUST006	45	Adult

Query History

Feedback