Name: E.R Harish

SubTotal

	SalesMonth	SalesQuarter	SalesYear	SalesTotal
1	March	Q1	2019	60.00
2	March	Q1	2020	50.00
3	May	Q2	2019	30.00
4	July	Q3	2020	10.00
5	November	Q4	2019	120.00
6	October	Q4	2019	150.00
7	November	Q4	2019	180.00
8	November	Q4	2020	120.00
9	July	Q3	2019	160.00
10	March	Q1	2020	170.00

1. Using ROLLUP to Calculate Subtotals and Grand Totals

```
--1. Using ROLLUP to Calculate Subtotals and Grand Totals
SELECT SalesYear,SalesQuarter, SUM(SalesTotal) AS SalesTotal FROM SalesList
GROUP BY ROLLUP (SalesYear, SalesQuarter);
```

99 %

Results Messages

	SalesYear	SalesQuarter	SalesTotal
1	2019	Q1	60.00
2	2019	Q2	30.00
3	2019	Q3	160.00
4	2019	Q4	450.00
5	2019	NULL	700.00
6	2020	Q1	220.00
7	2020	Q3	10.00
8	2020	Q4	120.00
9	2020	NULL	350.00
10	NULL	NULL	1050.00

2. Replacing NULL Values with Labels for Subtotals and Grand Totals

```sql
--2.Replacing NULL Values with Labels for Subtotals and Grand Totals
SELECT CASE WHEN GROUPING(SalesYear) = 1 AND GROUPING(SalesQuarter) = 1 THEN 'Grand Total'
WHEN GROUPING(SalesQuarter) = 1 THEN 'Subtotal'
      ELSE CAST(SalesYear AS NVARCHAR(10))
   END AS SalesYear,SalesQuarter,SUM(SalesTotal) AS SalesTotal FROM SalesList
GROUP BY ROLLUP(SalesYear, SalesQuarter);
```

99 %

Results | Messages

	SalesYear	SalesQuarter	SalesTotal
1	2019	Q1	60.00
2	2019	Q2	30.00
3	2019	Q3	160.00
4	2019	Q4	450.00
5	Subtotal	NULL	700.00
6	2020	Q1	220.00
7	2020	Q3	10.00
8	2020	Q4	120.00
9	Subtotal	NULL	350.00
10	Grand Total	NULL	1050.00

3. Using GROUPING SETS for Custom Subtotals

```sql
--3. Using GROUPING SETS for Custom Subtotals
SELECT SalesQuarter,SalesMonth, SUM(SalesTotal) AS SalesTotal FROM SalesList
GROUP BY GROUPING SETS ((SalesQuarter), (SalesMonth), ());
```

99 %

Results | Messages

	SalesQuarter	SalesMonth	SalesTotal
1	NULL	July	170.00
2	NULL	March	280.00
3	NULL	May	30.00
4	NULL	November	420.00
5	NULL	October	150.00
6	NULL	NULL	1050.00
7	Q1	NULL	280.00
8	Q2	NULL	30.00
9	Q3	NULL	170.00
10	Q4	NULL	570.00

Stored Procedure

```sql
CREATE TABLE Customers (
    CustomerID INT PRIMARY KEY,
    CustomerName NVARCHAR(50),
    ContactName NVARCHAR(50),
    Address NVARCHAR(100),
    City NVARCHAR(30),
    PostalCode NVARCHAR(10)
);

INSERT INTO Customers (CustomerID, CustomerName, ContactName, Address, City, PostalCode)
VALUES
    (1, 'Alfreds Futterkiste', 'Maria Anders', 'Obere Str. 57', 'Berlin', '12209'),
    (2, 'Ana Trujillo Emparedados y Helados', 'Ana Trujillo', 'Avda. de la Constitución 22', 'México D.F.', '05021'),
    (3, 'Antonio Moreno Taquería', 'Antonio Moreno', 'Mataderos 2312', 'México D.F.', '05023'),
    (4, 'Around the Horn', 'Thomas Hardy', '120 Hanover Sq.', 'London', 'WA1 1DP'),
    (5, 'Berglunds snabbköp', 'Christina Berglund', 'Berguvsvägen 8', 'Luleå', 'S-958 22'),
    (6, 'Blauer See Delikatessen', 'Hanna Moos', 'Forsterstr. 57', 'Mannheim', '68306'),
    (7, 'Blondel père et fils', 'Frédérique Citeaux', '24, place Kléber', 'Strasbourg', '67000'),
    (8, 'Bólido Comidas preparadas', 'Martín Sommer', 'C/ Araquil, 67', 'Madrid', '28023'),
    (9, 'Bon app''', 'Laurence Lebihan', '12, rue des Bouchers', 'Marseille', '13008'),
    (10, 'Bottom-Dollar Marketse', 'Elizabeth Lincoln', '23 Tsawassen Blvd.', 'Tsawassen', 'T2F 8M4');
```

1. Create a Stored Procedure

CREATE PROCEDURE SelectAllCustomers AS SELECT * FROM Customers;

Messages

```
Commands completed successfully.

Completion time: 2024-11-06T17:35:51.2416605+05:30
```

2. Execute the Stored Procedure

EXEC SelectAllCustomers;

```
--Execute the Stored Procedure
EXEC SelectAllCustomers;
```

99 %

Results | Messages

	CustomerID	CustomerName	ContactName	Address	City	PostalCode
1	1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209
2	2	Ana Trujillo Emparedados y Helados	Ana Trujillo	Avda. de la Constitución 22	México D.F.	05021
3	3	Antonio Moreno Taquería	Antonio Moreno	Mataderos 2312	México D.F.	05023
4	4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP
5	5	Berglunds snabbköp	Christina Berglund	Berguvsvägen 8	Luleå	S-958 22
6	6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306
7	7	Blondel père et fils	Frédérique Citeaux	24, place Kléber	Strasbourg	67000
8	8	Bólido Comidas preparadas	Martín Sommer	C/ Araquil, 67	Madrid	28023
9	9	Bon app'	Laurence Lebihan	12, rue des Bouchers	Marseille	13008
10	10	Bottom-Dollar Marketse	Elizabeth Lincoln	23 Tsawassen Blvd.	Tsawassen	T2F 8M4