1.List all Customers with their Orders and Payments Details:

```sql
SELECT c.CustomerID, c.firstName, c.lastName, c.Email, o.OrderID, o.Date, p.PaymentType, p.Amount
FROM Customer c
JOIN [Order] o ON c.CustomerID = o.CustomerID
JOIN Payment p ON o.PaymentID = p.PaymentID;
```

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Results | Messages

	CustomerID	firstName	lastName	Email	OrderID	Date	PaymentType	Amount
1	1	John	Doe	john.doe@example.com	101	2024-04-30	Cash	5000
2	1	John	Doe	john.doe@example.com	102	2024-04-30	Cash	5000
3	2	Jane	Smith	jane.smith@gmail.com	103	2024-04-30	Credit	7500
4	3	Bob	Johnson	bob.johnson@yahoo.com	104	2024-04-30	Debit	2000
5	3	Bob	Johnson	bob.johnson@yahoo.com	105	2024-04-30	Debit	2000
6	3	Bob	Johnson	bob.johnson@yahoo.com	106	2024-04-30	Debit	2000
7	4	Samantha	Lee	samantha.lee@hotmail.com	107	2024-04-30	Cash	3800
8	5	Michael	Brown	michael.brown@outlook.com	108	2024-04-30	Credit	8200
9	5	Michael	Brown	michael.brown@outlook.com	109	2024-04-30	Credit	8200
10	6	Emily	Wilson	emily.wilson@aol.com	110	2024-04-30	Debit	1200
11	7	David	Taylor	david.taylor@example.net	111	2024-04-30	Cash	6700
12	7	David	Taylor	david.taylor@example.net	112	2024-04-30	Cash	6700
13	8	Jessica	Anderson	jessica.anderson@gmail.com	113	2024-04-30	Credit	4300
14	8	Jessica	Anderson	jessica.anderson@gmail.com	114	2024-04-30	Credit	4300
15	9	Matthew	Thomas	matthew.thomas@yahoo.com	115	2024-04-30	Debit	3100
16	9	Matthew	Thomas	matthew.thomas@yahoo.com	116	2024-04-30	Debit	3100
17	10	Ashley	Moore	ashley.moore@hotmail.com	117	2024-04-30	Cash	9600
18	10	Ashley	Moore	ashley.moore@hotmail.com	118	2024-04-30	Cash	9600
19	11	Daniel	Martin	daniel.martin@outlook.com	119	2024-04-30	Credit	6400

2. Employee Details along with Address, Zip and Direct Supervisor Details:

```sql
SELECT
    e.EmployeeID,
    e.Name,
    a.Address,
    z.ZipCode,
    z.City,
    z.State,
    sup.Name AS SupervisorName
FROM
    Employee e
JOIN
    Address a ON e.AID = a.AID
JOIN
    ZipCode z ON a.ZipCode = z.ZipCode
LEFT JOIN
    Employee sup ON e.Supervisor = sup.EmployeeID;
```

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▦ Results ▯ Messages

	EmployeeID	Name	Address	ZipCode	City	State	SupervisorName
1	1	John Doe	123 Main St	80001	Denver	Colorado	NULL
2	2	Jane Smith	456 Elm St	80002	Aurora	Colorado	John Doe
3	3	Michael Johnson	789 Oak Ave	80003	Lakewood	Colorado	John Doe
4	4	Emily Davis	321 Pine Rd	80004	Colorado Springs	Colorado	Jane Smith
5	5	David Wilson	654 Maple Dr	80005	Fort Collins	Colorado	John Doe
6	6	Sarah Thompson	987 Cedar Ln	80006	Boulder	Colorado	John Doe
7	7	Robert Anderson	159 Birch St	80007	Arvada	Colorado	Michael Johnson
8	8	Olivia Martinez	753 Walnut Ave	80008	Westminster	Colorado	David Wilson
9	9	William Taylor	852 Spruce Rd	80009	Pueblo	Colorado	John Doe
10	10	Sophia Anderson	741 Ash Dr	80010	Thornton	Colorado	David Wilson
11	11	James Wilson	369 Chestnut St	80011	Centennial	Colorado	John Doe
12	12	Ava Thompson	258 Sycamore Ave	80012	Greeley	Colorado	Michael Johnson
13	13	Benjamin Davis	147 Willow Rd	80013	Longmont	Colorado	John Doe
14	14	Mia Anderson	963 Laurel Ln	80014	Loveland	Colorado	David Wilson
15	15	Henry Wilson	357 Hickory Dr	80015	Broomfield	Colorado	NULL

3. Wine Details including Grape Varieties used in Blends:

```sql
SELECT
    w.WineID,
    w.WineType,
    gv.Name AS GrapeVariety,
    wb.juiceProportion,
    wine.Type AS WineType,
    wine.Quantity
FROM
    WineProduced w
JOIN
    WineBlend wb ON w.WineID = wb.WineID
JOIN
    GrapeVariety gv ON wb.GVID = gv.GVID
JOIN
    Wine wine ON w.WineID = wine.WineID;
```

75 %

Results | Messages

	WineID	WineType	GrapeVariety	juiceProportion	WineType	Quantity
1	1	Mount Sauvignon	Cabernet Sauv	0.95	Red	500
2	4	Mount Shiraz	Cabernet Sauv	0.10	Red	450
3	2	Mount Merlot	Merlot	1.00	Red	400
4	3	Longs Pinot	Pinot Grigio	1.00	White	600
5	4	Mount Shiraz	Shiraz	0.90	Red	450
6	5	Pikes Chardonnay	Chardonnay	1.00	White	750
7	6	Blanca Riesling	Riesling	0.95	White	300
8	6	Blanca Riesling	Gewürztraminer	0.05	White	300
9	7	Graysztramnier Peak	Gewürztraminer	1.00	White	200

4. Details of Vineyards, the Grapes they Harvest, and the Employee managing the Vineyard:

```
SQLQuery60.sql - B...E\C836782276 (95))*    SQLQuery59.sql - B...\C836782276 (106))    SQLQuery58.sql - B...\C836782276 (101))    SQLQuery57.sql - B...\C8367822

SELECT
    v.Name AS VineyardName,
    v.Size AS VineyardSize,
    gv.Name AS GrapeVariety,
    gv.JuiceConversionRatio,
    gv.WineStorageRequirement,
    gv.WineAgingRequirement,
    e.Name AS EmployeeName,
    p.PlotLocation ]
FROM
    Vineyard v
JOIN
    Harvest h ON v.VID = h.VID
JOIN
    GrapeVariety gv ON h.GVID = gv.GVID
JOIN
    Employee e ON v.EmployeeID = e.EmployeeID
JOIN
    Plot p ON v.PlotID = p.PlotID;
```

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Results | Messages

	VineyardName	VineyardSize	GrapeVariety	JuiceConversionRatio	WineStorageRequirement	WineAgingRequirement	EmployeeName	PlotLocation
1	Mesa Vines	20.00	Cabernet Sauv	0.70	Cool	12-18 months	John Doe	Boulder
2	Redrock Canyon	15.00	Merlot	0.75	Cool	6-12 months	Ava Thompson	Aspen
3	Blue Sky	25.00	Pinot Grigio	0.65	Cool	None	Ava Thompson	Telluride
4	Western Sun	30.00	Shiraz	0.72	Cool	12-18 months	John Doe	Durango
5	Cloudy Range	18.00	Chardonnay	0.68	Cool	6-12 months	Benjamin Davis	Steamboat Springs
6	Golden Grapes	22.00	Riesling	0.62	Cool	None	Benjamin Davis	Pueblo
7	Sunset Vines	19.00	Gewürztraminer	0.67	Cool	6-12 months	Mia Anderson	Fort Collins

5. Shipping Details for Orders including Vendor Information:

```sql
SELECT o.OrderID, o.Date,s.ShipmentID, s.Date AS ShipmentDate,s.Status, v.Name AS VendorName, v.Number AS VendorNumber
FROM [Order] o
JOIN Shipment s ON o.ShipmentID = s.ShipmentID
JOIN Vendor v ON s.VendorID = v.VendorID;
```

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Results **Messages**

	OrderID	Date	ShipmentID	ShipmentDate	Status	VendorName	VendorNumber
1	101	2024-04-30	43521	2024-05-02	Shipped	AcmeInc	1234567890
2	102	2024-04-30	43521	2024-05-02	Shipped	AcmeInc	1234567890
3	103	2024-04-30	43521	2024-05-02	Shipped	AcmeInc	1234567890
4	104	2024-04-30	43522	2024-05-03	In Transit	BetaLLC	2345678901
5	105	2024-04-30	43522	2024-05-03	In Transit	BetaLLC	2345678901
6	106	2024-04-30	43522	2024-05-03	In Transit	BetaLLC	2345678901
7	107	2024-04-30	43523	2024-05-04	Delivered	GammaCo	3456789012
8	108	2024-04-30	43523	2024-05-04	Delivered	GammaCo	3456789012
9	109	2024-04-30	43523	2024-05-04	Delivered	GammaCo	3456789012
10	110	2024-04-30	43524	2024-05-05	Shipped	DeltaLtd	4567890123
11	111	2024-04-30	43524	2024-05-05	Shipped	DeltaLtd	4567890123
12	112	2024-04-30	43524	2024-05-05	Shipped	DeltaLtd	4567890123
13	113	2024-04-30	43525	2024-05-06	In Transit	Epsilon	5678901234
14	114	2024-04-30	43525	2024-05-06	In Transit	Epsilon	5678901234
15	115	2024-04-30	43525	2024-05-06	In Transit	Epsilon	5678901234
16	116	2024-04-30	43526	2024-05-07	Delivered	ZetaInc	6789012345
17	117	2024-04-30	43526	2024-05-07	Delivered	ZetaInc	6789012345
18	118	2024-04-30	43526	2024-05-07	Delivered	ZetaInc	6789012345
19	119	2024-04-30	43527	2024-05-08	Shipped	EtaCorp	7890123456
20	120	2024-04-30	43527	2024-05-08	Shipped	EtaCorp	7890123456

6. Projection of Case specifications for Different Wines

```sql
SELECT
    w.WineID,
    w.WineType AS Type,
    wh.TypeOfContainer,
    wh.Holdingdate,
    wh.Duration,
    wh.CaseID,
    b.BottleID,
    b.Shape,
    b.Color,
    b.Capacity,
    cl.LotID,
    cl.Quantity AS CaseQuantity
FROM
    WineProduced w
JOIN
    WineHolding wh ON w.WineID = wh.WineID
JOIN
    [Case] c ON wh.CaseID = c.CaseID
JOIN
    Bottle b ON c.BottleID = b.BottleID
LEFT JOIN
    CaseLot cl ON c.CaseID = cl.CaseID;
```

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▦ Results 📄 Messages

	WineID	Type	TypeOfContainer	Holdingdate	Duration	CaseID	BottleID	Shape	Color	Capacity	LotID	CaseQuantity
1	1	Mount Sauvignon	Barrel	2024-01-10	12	101	581	Round	Clear	500	201	10
2	2	Mount Merlot	Barrel	2024-02-15	15	102	582	Square	Green	750	202	15
3	3	Longs Pinot	Tank	2024-03-20	18	103	583	Round	Blue	1000	203	20
4	4	Mount Shiraz	Barrel	2024-04-25	24	104	584	Square	Amber	1500	204	25
5	5	Pikes Chardonnay	Tank	2024-05-30	20	105	585	Oval	Clear	500	205	30
6	6	Bianca Riesling	Barrel	2024-06-05	14	106	586	Oval	Blue	750	206	35
7	7	Grayeztramnier Peak	Tank	2024-07-10	16	107	587	Round	Green	1000	207	40

7. Customer Membership details including the Wine Offered.


```sql
SELECT
    c.CustomerID,
    c.Email,
    c.firstName,
    c.lastName,
    m.MemberID,
    m.JoiningDate,
    m.ExpiryDate,
    m.WineSelection,
    m.Status,
    mwo.WineID,
    w.WineType,
    w.Price,
    w.Category,
    w.AlcoholPercentage,
    w.VintageYear
FROM
    Customer c
JOIN
    Membership m ON c.MemberID = m.MemberID
JOIN
    MembershipWineOffered mwo ON m.MemberID = mwo.MemberID
JOIN
    WineProduced w ON mwo.WineID = w.WineID;
```

	CustomerID	Email	firstName	lastName	MemberID	JoiningDate	ExpiryDate	WineSelection	Status	WineID	WineType	Price	Category	AlcoholPercentage	VintageYear
1	1	john.doe@example.com	John	Doe	80081	2022-05-01	2024-04-30	Red	Active	1	Mount Sauvignon	39.99	Dry Red	14.00	2018
2	2	jane.smith@gmail.com	Jane	Smith	80082	2021-09-15	2023-09-14	White	Inactive	2	Mount Merlot	29.99	Dry Red	13.50	2019
3	4	samantha.lee@hotmail.com	Samantha	Lee	80084	2020-11-05	2022-11-04	Red	Inactive	3	Longs Pinot	24.99	Dry White	12.50	2020
4	5	michael.brown@outlook.com	Michael	Brown	80085	2022-07-10	2024-07-00	White	Active	4	Mount Shiraz	34.99	Dry Red	14.50	2017
5	6	emily.wilson@aol.com	Emily	Wilson	80086	2021-03-25	2023-03-24	Mixed	Active	5	Pikes Chardonnay	27.99	Dry White	13.00	2019
6	7	david.taylor@example.net	David	Taylor	80087	2022-09-01	2024-08-31	Red	Active	6	Blanca Riesling	21.99	Sweet White	10.50	2021
7	8	jessica.anderson@gmail.com	Jessica	Anderson	80088	2021-06-15	2023-06-14	White	Inactive	7	Grayaztramrier Peak	26.99	Aromatic White	12.00	2020
8	9	matthew.thomas@yahoo.com	Matthew	Thomas	80089	2023-01-10	2025-01-09	Mixed	Active	1	Mount Sauvignon	39.99	Dry Red	14.00	2018
9	10	ashley.moore@hotmail.com	Ashley	Moore	80090	2020-07-20	2022-07-19	Red	Inactive	2	Mount Merlot	29.99	Dry Red	13.50	2019
10	13	william.thompson@example.net	William	Thompson	80083	2023-02-20	2025-02-19	Mixed	Active	3	Longs Pinot	24.99	Dry White	12.50	2020
11	1	john.doe@example.com	John	Doe	80081	2022-05-01	2024-04-30	Red	Active	1	Mount Sauvignon	39.99	Dry Red	14.00	2018
12	2	jane.smith@gmail.com	Jane	Smith	80082	2021-09-15	2023-09-14	White	Inactive	2	Mount Merlot	29.99	Dry Red	13.50	2019
13	13	william.thompson@example.net	William	Thompson	80083	2023-02-20	2025-02-19	Mixed	Active	3	Longs Pinot	24.99	Dry White	12.50	2020
14	4	samantha.lee@hotmail.com	Samantha	Lee	80084	2020-11-05	2022-11-04	Red	Inactive	4	Mount Shiraz	34.99	Dry Red	14.50	2017
15	5	michael.brown@outlook.com	Michael	Brown	80085	2022-07-10	2024-07-00	White	Active	5	Pikes Chardonnay	27.99	Dry White	13.00	2019
16	6	emily.wilson@aol.com	Emily	Wilson	80086	2021-03-25	2023-03-24	Mixed	Active	6	Blanca Riesling	21.99	Sweet White	10.50	2021
17	7	david.taylor@example.net	David	Taylor	80087	2022-09-01	2024-08-31	Red	Active	7	Grayaztramrier Peak	26.99	Aromatic White	12.00	2020

8. Customer and Server Interaction details.

```sql
SELECT
    c.CustomerID,
    c.firstName,
    a.Address,
    z.City,
    z.State,
    c.Email,
    s.ServerID,
    e.CertificationNumber,
    s.TipsCertification,
    e.Name AS EmployeeName,
    sup.Name AS SupervisorName
FROM
    Customer c
JOIN
    CustomerServer cs ON c.CustomerID = cs.CustID
JOIN
    Address a ON c.AID = a.AID
JOIN
    ZipCode z ON a.ZipCode = z.ZipCode
JOIN
    Server s ON cs.ServerID = s.ServerID
JOIN
    Employee e ON s.EmployeeID = e.EmployeeID
LEFT JOIN
    Employee sup ON e.Supervisor = sup.EmployeeID;
```

	CustomerID	firstName	Address	City	State	Email	ServerID	CertificationNumber	TipsCertification	EmployeeName	SupervisorName
1	1	John	789 Michigan Ave	Chicago	Illinois	john.doe@example.com	201	53197	Certified Server	William Taylor	John Doe
2	2	Jane	159 Pennsylvania Ave	Washington	Washington D.C.	jane.smith@gmail.com	201	53197	Certified Server	William Taylor	John Doe
3	3	Bob	369 Pike St	Seattle	Washington	bob.johnson@yahoo.com	201	53197	Certified Server	William Taylor	John Doe
4	4	Samantha	654 Beacon St	Boston	Massachusetts	samantha.lee@hotmail.com	201	53197	Certified Server	William Taylor	John Doe
5	5	Michael	456 Broadway	New York	New York	michael.brown@outlook.com	201	53197	Certified Server	William Taylor	John Doe
6	6	Emily	852 Market St	Philadelphia	Pennsylvania	emily.wilson@aol.com	202	42086	Certified Sommelier	Sophia Anderson	David Wilson
7	7	David	321 Houston St	Houston	Texas	david.taylor@example.net	202	42086	Certified Sommelier	Sophia Anderson	David Wilson
8	8	Jessica	147 Hennepin Ave	Minneapolis	Minnesota	jessica.anderson@gmail.com	202	42086	Certified Sommelier	Sophia Anderson	David Wilson
9	9	Matthew	987 Peachtree St	Atlanta	Georgia	matthew.thomas@yahoo.com	202	42086	Certified Sommelier	Sophia Anderson	David Wilson
10	10	Ashley	741 Central Ave	Phoenix	Arizona	ashley.moore@hotmail.com	202	42086	Certified Sommelier	Sophia Anderson	David Wilson

9. Order – OrderLine – Product Projection

```sql
SELECT
    o.OrderID,
    o.Date,
    o.CustomerID,
    ol.ProductID,
    ol.Quantity,
    p.Type,
    p.Price,
    p.SKU
FROM
    [Order] o
JOIN
    OrderLine ol ON o.OrderID = ol.OrderID
JOIN
    Product p ON ol.ProductID = p.ProductID
ORDER BY
    o.OrderID, ol.ProductID;
```

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Results | **Messages**

	OrderID	Date	CustomerID	ProductID	Quantity	Type	Price	SKU
1	101	2024-04-30	1	761	178	Wine	220	12350
2	102	2024-04-30	1	762	200	Food	100	12351
3	103	2024-04-30	2	763	341	Wine	400	12352
4	104	2024-04-30	3	764	66	Food	320	12353
5	105	2024-04-30	3	765	74	Wine	290	12354
6	106	2024-04-30	3	766	59	Food	130	12355
7	107	2024-04-30	4	767	85	Wine	360	12356
8	108	2024-04-30	5	768	120	Food	210	12357
9	109	2024-04-30	5	769	130	Wine	180	12358
10	110	2024-04-30	6	770	150	Food	240	12359
11	111	2024-04-30	7	761	160	Wine	220	12350
12	112	2024-04-30	7	762	170	Food	100	12351
13	113	2024-04-30	8	763	180	Wine	400	12352
14	114	2024-04-30	8	764	190	Food	320	12353
15	115	2024-04-30	9	765	195	Wine	290	12354
16	116	2024-04-30	9	766	205	Food	130	12355
17	117	2024-04-30	10	767	215	Wine	360	12356
18	118	2024-04-30	10	768	225	Food	210	12357
19	119	2024-04-30	11	769	235	Wine	180	12358
20	120	2024-04-30	12	770	245	Food	240	12359