1. Find the product names for each of the orders in “Orderdetails” table and find their respective product lines as well.

Ans.

```
use classicmodels;
select * from orderdetails;
select * from productlines;
select * from products;

select p.productName ProductName, p.productline ProductLine, o.ordernumber OrderNumber
from orderdetails o
join products p
on p.productCode = o.productcode;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

ProductName	ProductLine	OrderNumber
1969 Harley Davidson Ultimate Chopper	Motorcycles	10107
1969 Harley Davidson Ultimate Chopper	Motorcycles	10121
1969 Harley Davidson Ultimate Chopper	Motorcycles	10134
1969 Harley Davidson Ultimate Chopper	Motorcycles	10145
1969 Harley Davidson Ultimate Chopper	Motorcycles	10159
1969 Harley Davidson Ultimate Chopper	Motorcycles	10168
1969 Harley Davidson Ultimate Chopper	Motorcycles	10180
1969 Harley Davidson Ultimate Chopper	Motorcycles	10188
1969 Harley Davidson Ultimate Chopper	Motorcycles	10201
1969 Harley Davidson Ultimate Chopper	Motorcycles	10211

Result Grid | Form Editor | Field Types

Result 13 | Read Only

2. Using the “Payments” table, find out the total amount spent by each customer and their respective countries

Ans.

```
11  select * from payments;
12  select c.customername CustomerName, c.country Country, sum(pa.amount) Total_Amount
13  from payments pa
14  join customers c
15  on c.customernumber = pa.customernumber
16  group by CustomerNAme, country;
17
18
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

CustomerName	Country	Total_Amount
Atelier graphique	France	22314.36
Signal Gift Stores	USA	80180.98
Australian Collectors, Co.	Australia	180585.07
La Rochelle Gifts	France	116949.68
Baane Mini Imports	Norway	104224.79
Mini Gifts Distributors Ltd.	USA	584188.24
Blauer See Auto, Co.	Germany	75937.76
Mini Wheels Co.	USA	66710.56
Land of Toys Inc.	USA	107639.94
Euro+ Shopping Channel	Spain	715738.98

Result 15

3. Find out the number of customers from each country and their respective sales representative, their overall sales for each of the country

Ans.

```
28  select c.country Country, count(distinct(c.customername)) "No of customer",
29  concat(e.firstname,' ',e.lastname) Sales_Represetative , ord.quantityordered*ord.priceeach sales
30  from employees e
31  join customers c
32  on c.salesrepemployeenumber = e.employeeNumber
33  join orders o
34  on o.customernumber = c.customernumber
35  join orderdetails ord
36  on o.ordernumber = ord.ordernumber
37  group by country;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Country	No of customer	Sales_Represetative	sales
Canada	3	George Vanauf	9568.73
Denmark	2	Pamela Castillo	6392.00
Finland	3	Larry Bott	4134.40
France	12	Gerard Hernandez	3138.46
Germany	3	Barry Jones	5279.40
Hong Kong	1	Mami Nishi	3155.40
Ireland	1	Barry Jones	6051.20
Italy	4	Pamela Castillo	6994.82
Japan	2	Mami Nishi	5691.84
New Zeal	4	Peter Marsh	2880.00

Result 130

4. Find out the amount of sales driven by each sales representative and for each product line

Ans.

```
41  select sum(ord.quantityordered*ord.priceeach) Total_sales,
42  concat(e.firstname,' ',e.lastname) Sales_Represetative, p.productline ProductLine
43  from products p
44  join orderdetails ord
45  on  p.productcode = ord.productcode
46  join orders o
47  on ord.ordernumber = o.ordernumber
48  join customers c
49  on o.customernumber = c.customernumber
50  join employees e
51  on c.salesrepemployeenumber = e.employeenumber
52  group by Sales_Represetative;
53
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Sheet1+.2

Total_sales	Sales_Represetative	ProductLine
1258577.81	Gerard Hernandez	Classic Cars
347533.03	Leslie Thompson	Vintage Cars
562582.59	Andy Fixter	Motorcycles
704853.91	Barry Jones	Classic Cars
1081530.54	Leslie Jennings	Trucks and Buses
669377.05	George Vanauf	Motorcycles
868220.55	Pamela Castillo	Classic Cars
569485.75	Loui Bondur	Classic Cars

Result 145

5. List the customer names for those who their names are starting with “A” and their overall purchase, profit made for each customer

Ans.

```
63  select c.customername customername,
64  ord.quantityordered*ord.priceeach total_sales,
65  (ord.quantityordered*ord.priceeach)-( p.buyprice*ord.quantityordered) profit
66  from customers c
67  join orders o
68  on o.customernumber = c.customernumber
69  join orderdetails ord
70  on ord.ordernumber = o.ordernumber
71  join products p
72  on p.productcode = ord.productcode
73  where customername like "a%"
74  group by customername;
75
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customername	total_sales	profit
Atelier graphique	3138.46	1423.50
Australian Collectors, Co.	3449.26	1448.55
AV Stores, Co.	4374.14	1933.62
Auto-Moto Classics Inc.	2752.80	688.40
Alpha Cognac	2937.00	849.25
Amica Models & Co.	6994.82	3643.10

Result 177

6. Find the profit for each product line and also see the inventory in stock

Ans-

```
76  select p.productline Productline,
77  sum(ord.quantityordered*ord.priceeach)-sum( p.buyprice*ord.quantityordered) profit,
78  (p.quantityinstock-ord.quantityordered) stocked_inventory
79  from products p
80  join orderdetails ord
81  on p.productcode = ord.productcode
82  group by Productline;
83
84
```

Sheet1+.2

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Productline	profit	stocked_inventory
Classic Cars	1526212.20	7279
Motorcycles	469255.30	7903
Planes	365960.71	5294
Ships	261289.47	4218
Trains	65341.02	6412
Trucks and Buses	400553.22	1552

Result 182

7. Check if the overall purchase value of each customers has exceeded the credit limit set for them and calculate the percent of deviation (both positive and negative)

Ans.

```
86
87  select c.customername customername, sum(ord.quantityordered*ord.priceeach) total_purchase,
88  c.creditlimit CreditLimit,
89  ((c.creditlimit-sum(ord.quantityordered*ord.priceeach))/c.creditlimit)*100 percentage_deviation
90  from customers c
91  join orders o
92  on c.customernumber = o.customernumber
93  join orderdetails ord
94  on o.ordernumber = ord.ordernumber
95  group by customername;
96
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customername	total_purchase	CreditLimit	percentage_deviation
Atelier graphique	22314.36	21000.00	-6.258857
Signal Gift Stores	80180.98	71800.00	-11.672674
Australian Collectors, Co.	180585.07	117300.00	-53.951466
La Rochelle Gifts	158573.12	118200.00	-34.156616
Baane Mini Imports	104224.79	81700.00	-27.570122
Mini Gifts Distributors Ltd	591827.34	210500.00	-181.153131

Result 188

8. Find the top performing sales agent, revenue generated and total number of customers for each of them individually, create this as a view

Ans.

```
98  create view temp as
99  select  concat(e.firstname,' ',e.lastname) Sales_Represetativec, salesrepemployeenumber salesman_number,
100 sum(ord.quantityordered*ord.priceeach) total_revenue_generated,
101 count(distinct(c.customernumber)) total_customers
102 from employees e
103 join customers c
104 on c.salesrepemployeenumber = e.employeenumber
105 join orders o
106 on c.customernumber = o.customernumber
107 join orderdetails ord
108 on ord.ordernumber = o.ordernumber
109 group by salesman_number
110 order by total_revenue_generated, total_customers;
111 select * from temp;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Sales_Represetativec	salesman_number	total_revenue_generated	total_customers
Leslie Thompson	1166	347533.03	6
Julie Firrelli	1188	386663.20	6
Martin Gerard	1702	387477.47	5
Mami Nishi	1621	457110.07	5
Foon Yue Tseng	1286	488212.67	6
Steve Patterson	1216	505875.42	6

temp 195

10. Find out the most frequently used fields across all the tables and create indexes for each of the tables

Ans.

```
133
134 create index customerNumber_index
135 on customers (customernumber);
136
137 select customernumber from customers;
138
139
```

Sheet1+.2

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customernumber
103
112
114
119
121

11. Create one overall view with a Customer Full Contact Name, customer country, Sales Representative Name, credit limit, overall purchase value of the customer, Product line bought, actual buying price of the product.

Ans.

```
116  create view temp as
117  select concat(c.contactfirstname,' ',c.contactlastname) ContactFullName, c.creditlimit creditlimit,
118  c.country country, concat(e.firstname,' ',e.lastname) Sales_Represetative,
119  ord.quantityordered*ord.priceeach total_purchase, pa.amount Amount,
120  ( p.buyprice*ord.quantityordered) Actual_buy_price, p.productline productline
121  from employees e
122  join customers c
123  on c.salesrepemployeenumber = e.employeenumber
124  join payments pa
125  on c.customernumber = pa.customernumber
126  join orders o
127  on o.customernumber = pa.customernumber
128  join orderdetails ord
129  on ord.ordernumber = o.ordernumber
130  join products p
131  on p.productcode = ord.productcode;
132
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

ContactFullName	creditlimit	country	Sales_Represetative	total_purchase	Amount	Actual_buy_price	productline
Carine Schmitt	21000.00	France	Gerard Hernandez	3138.46	6066.78	1714.96	Classic Cars
Carine Schmitt	21000.00	France	Gerard Hernandez	5282.64	6066.78	2610.96	Classic Cars
Carine Schmitt	21000.00	France	Gerard Hernandez	3986.84	6066.78	2113.44	Classic Cars
Carine Schmitt	21000.00	France	Gerard Hernandez	2163.50	6066.78	1459.00	Classic Cars
Carine Schmitt	21000.00	France	Gerard Hernandez	3138.46	14571.44	1714.96	Classic Cars

Result 203