

12. A car dealership uses a relational database to store the following information in three tables as shown below.

CarSale	Customer	SalesPerson
<u>saleID</u> carReg dateIn year mileage askingPrice sold dateSold salesPersonRef* customerNo* soldPrice	<u>customerNo</u> firstName surname contactNo	<u>salesPersonRef</u> salesPersonName

- (a) When the `CarSale` table was originally designed, it was suggested that a compound key could have been used.

Explain why a compound key would not have been suitable for the `CarSale` table.

1

[Turn over



* X 8 1 6 7 6 0 1 2 5 *

12. (continued)

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(b) Sample data from the CarSale table is shown below.

CarSale										
saleID	carReg	dateIn	year	mileage	askingPrice	sold	dateSold	salesPersonRef	custNo	soldPrice
001	KS17 SDD	17/07/2019	2017	2400	15305	Yes	19/09/2019	GA001	1234	14000
002	DD15 LDX	11/10/2019	2015	45512	6000	Yes	22/11/2019	AJ344	1234	5750
003	DG15 KJS	01/03/2021	2015	34069	5000	Yes	26/06/2021	AJ344	7001	4800
004	KS19 AZX	14/08/2021	2019	10033	13655	Yes	19/09/2021	AJ344	7747	13555
005	FF18 PMD	08/12/2021	2019	8238	10800	Yes	28/12/2021	SS002	5414	10500
006	LK16 JSS	07/03/2022	2016	45300	8500	No				
007	EF18 FES	10/03/2022	2018	29178	11709	No				
008	DD15 LDX	15/03/2022	2015	72130	5000	No				
009	KP15 DDS	01/04/2022	2015	34444	7900	Yes	02/05/2022	GA001	3002	7800
010	KS17 SDD	01/04/2022	2017	22452	12000	No				
011	PK17 YFK	22/04/2022	2017	19858	22663	No				
012	FF17 EES	26/04/2022	2017	14469	10166	No				
013	DS17 KRF	02/05/2022	2017	16113	14748	No				
...

A customer would like to buy a car from the years 2017 or 2018. They want to know the cheapest asking price of the 2017 and the 2018 cars that are currently on sale.

This information is shown below.

year	Cheapest Price
2017	10166
2018	11709

Complete the design of a query that will display the information as shown above.

3

Field(s) and calculation(s)	
Tables(s)	CarSale
Search criteria	
Grouping	
Sort order	year ASC



* X 8 1 6 7 6 0 1 2 6 *

12. (continued)

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- (c) The manager would like to display a list of all cars that have been sold, showing the price difference between the asking price and the sold price.

The list should look like this.

carReg	salesPersonName	askingPrice	soldPrice	Price Difference
KP15 DDS	Daniel Avery	7900	7800	100
FF18 PMD	Deanna Smith	10800	10500	300
KS19 AZX	Hosea Jack	13655	13555	100
DD15 LDX	Hosea Jack	6000	5750	250
DG15 KJS	Hosea Jack	5000	4800	200
KS17 SDD	Daniel Avery	15305	14000	1305
...

Write the SQL statement that would create this list.

4

- (d) The asking price of all cars with mileage of 10 000 or less have to be increased by 10%.

Write the SQL statement that would make these changes.

2