

14. A window cleaning company wishes to create a database to store information about staff and the houses they clean. The company provides examples of information they would like to include.

House
houseID: DAL7233
Customer Name: Jacob Brown
Address: 8 Wishaw Place
Direct debit: No
Windows: 8
Cost: 15

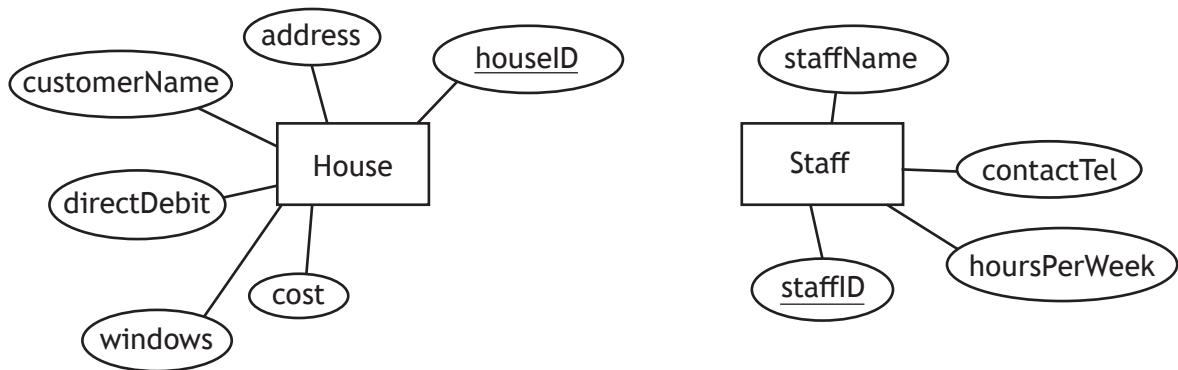
Staff
staffID: 6290
Staff Name: Noah Canavan
Contact Telephone: 07387259004
Hours Per Week: 25

- (a) Each staff member is allocated a number of houses to clean. They clean the windows of the same houses each month.

Use the information provided to complete the entity relationship diagram below by:

- adding the missing key attribute
- drawing the relationship between the entities
- naming the relationship between the entities.

4



[Turn over



* X 8 1 6 7 5 0 1 1 9 *

14. (continued)

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- (b) The relational database is implemented. Sample data from both tables is shown below.

House						
houseID	customerName	address	directDebit	windows	cost	staffID
BON4523	Claire Banks	168 Ferry Place	Yes	6	13	1613
DAL8001	Stephen Jones	7F Millbank	No	3	7	1752
EDI3189	Ian Collins	15 Robin Ave	Yes	8	12	1613
...

Staff			
staffID	staffName	contactTel	hoursPerWeek
2160	Daniel Buchan	07721454187	35
1613	Jessie Tait	07378565190	15
1752	Nick Haig	07745176623	27.5
1617	Dagmara Dyner	07178251143	35
...

- (i) The database is used to identify all customer names and addresses that have 5 or more windows and are allocated to staff member Fatima Khan.

Complete the SQL statement below that would produce this output.

5

SELECT _____

FROM _____

WHERE _____

- (ii) The owner at 15 Robin Avenue has moved house. The new owner's name is Sue Horaz. They will still pay via direct debit.

Complete the SQL statement below to update this record.

1

UPDATE House

SET _____

WHERE houseID = "EDI3189" ;



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

14. (continued)

- (c) The following details are to be added into the House table.

houseID	customerName	address	directDebit	windows	cost	staffID
BON9070	Tia Neil	77B Park Close	No	5	9	3630

When attempting to add this data, the following error message is displayed.

Error - referential integrity!



The relationship does not allow this record to be inserted.

Explain the reason for this.

1
