

16. A primary school is organising a range of 30 activities for its 550 pupils for the last day of term. The organiser wishes to create and use a database.

The following are essential.

Each pupil selects one activity. They must return a form which contains their name, class and emergency contact details.

The organiser provides class teachers with a list of pupils' names and chosen activities.

Each activity has a leader and a unique activity name. Activity prices range from £2 to £30. The organiser provides a list for each activity leader, showing each pupil's name, class and emergency contact details.

The organiser records which pupils have returned a form so that they can search for pupils who have not signed up to an activity.

- (a) State two functional requirements of the database.

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Functional requirement 1 _____

Functional requirement 2 _____

- (b) Complete the entity-relationship diagram on the opposite page for the database by:

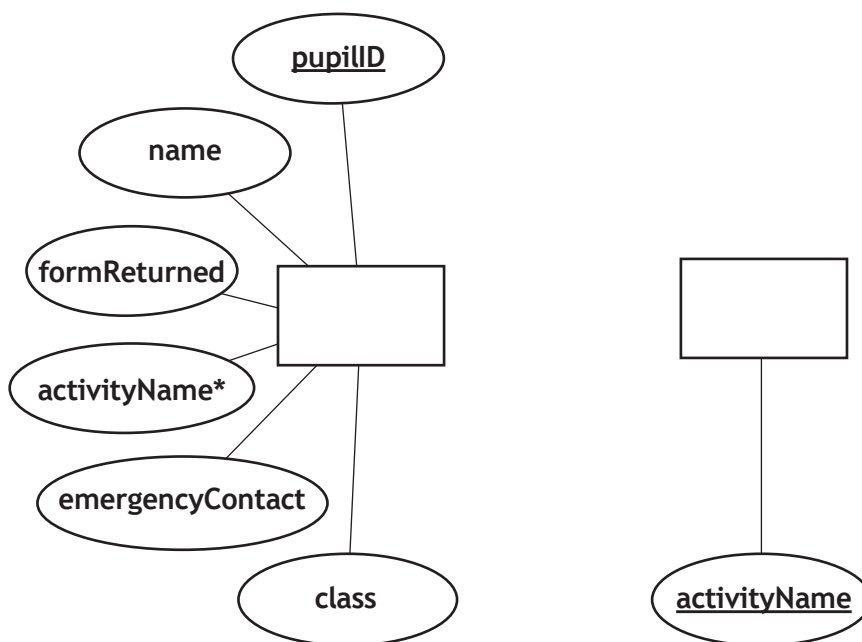
- naming the entities
- drawing any missing attributes from either entity
- drawing the relationship between the entities
- naming the relationship between the entities.

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

16. (continued)



- (c) Identify the attribute that would be stored as a Boolean field when the database is implemented.

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- (d) When the database is implemented validation is added to several fields.

- (i) The primary school has 14 different class names. For example P1A, P4B, P6/7A.

Describe how validation of this field could be implemented when the database tables are created.

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- (ii) State one field where range validation would be appropriate.

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