

# IS H Exam 2005 - Amended

1. A sample of data is shown when Team details and Facility booking details are brought together into one entity.

This will help in identifying any **multi-valued attributes** (repeating data).

Bear in mind that it is given that team name is the key, therefore each row in the table is about one particular team.

<u>Team Name</u>	Sport	Coach Name	Coach Contact	Day	Time	Facility	Cost per hour	Capacity	Date	Payment	Duty Staff
Broomhill Bullets	basketball	A Hughes	777123	Tues	5 - 7 pm	GH 1	£10	250	07/06/08	Cheque	A Young
						GH2	£20	600	21/06/08	Cheque	R Lawson
						GHI	£10	250	28/06/08	Cash	F Hardie
Cranford Colts	hockey	B Lester	772167	Wed	6 - 8 pm	AT	£20	600	08/06/08	Cash	F Hardie
						AT	£50	300	15/06/08	Cheque	R Lawson

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booking team name

sport

coach name

coach contact no

day

time

facility name

cost per hour

capacity

date

payment method

duty staff

repeating data

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INF

**team** team name  
sport  
coach name  
coach contact no  
day  
time

**booking** facility name  
cost per hour  
capacity  
date  
payment method  
duty staff  
team name \*

Table to aid in finding key

Facility	Cost per hour	Capacity	Date	Payment	Duty Staff	Team Name
GH 1	£10	250	07/06/08	Cheque	A Young	Broomhill Bullets
GH2	£20	600	21/06/08	Cheque	R Lawson	Broomhill Bullets
GH1	£10	250	28/06/08	Cash	F Hardie	Broomhill Bullets
AT1	£20	600	08/06/08	Cash	F Hardie	Cranford Colts
AT2	£50	300	15/06/08	Cheque	R Lawson	Cranford Colts

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For 2NF

team team name

sport

coach name

coach contact no

day

time

booking facility name

cost per hour

capacity

date

payment method

duty staff

team name\*

Adding a new row to the table, what data could be completed without having to know the booking details?

Facility	Cost per hour	Capacity	Date	Payment	Duty Staff	Team Name
GH 1	£10	250	07/06/08	Cheque	A Young	Broomhill Bullets
GH2	£20	600	21/06/08	Cheque	R Lawson	Broomhill Bullets
GH1	£10	250	28/06/08	Cash	F Hardie	Broomhill Bullets
AT1	£20	600	08/06/08	Cash	F Hardie	Cranford Colts
AT2	£50	300	15/06/08	Cheque	R Lawson	Cranford Colts
GH1	£10	250	?	?	?	?

Knowing the facility will always give the cost per hour and capacity.

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2NF

**team** team name  
sport  
coach name  
coach contact no  
day  
time

**booking** facility name \*  
date  
payment method  
duty staff  
team name\*

**facility** facility name  
cost per hour  
capacity

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For 3NF

**team** team name  
sport  
coach name  
coach contact no  
day  
time

**booking** facility name \*  
date  
payment method  
duty staff  
team name\*

**facility** facility name  
cost per hour  
capacity

Consider now only attributes that are not underlined.

Knowing the coach name will always give the contact no. and the sport

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3NF

**team** team name  
coach name \*  
day  
time

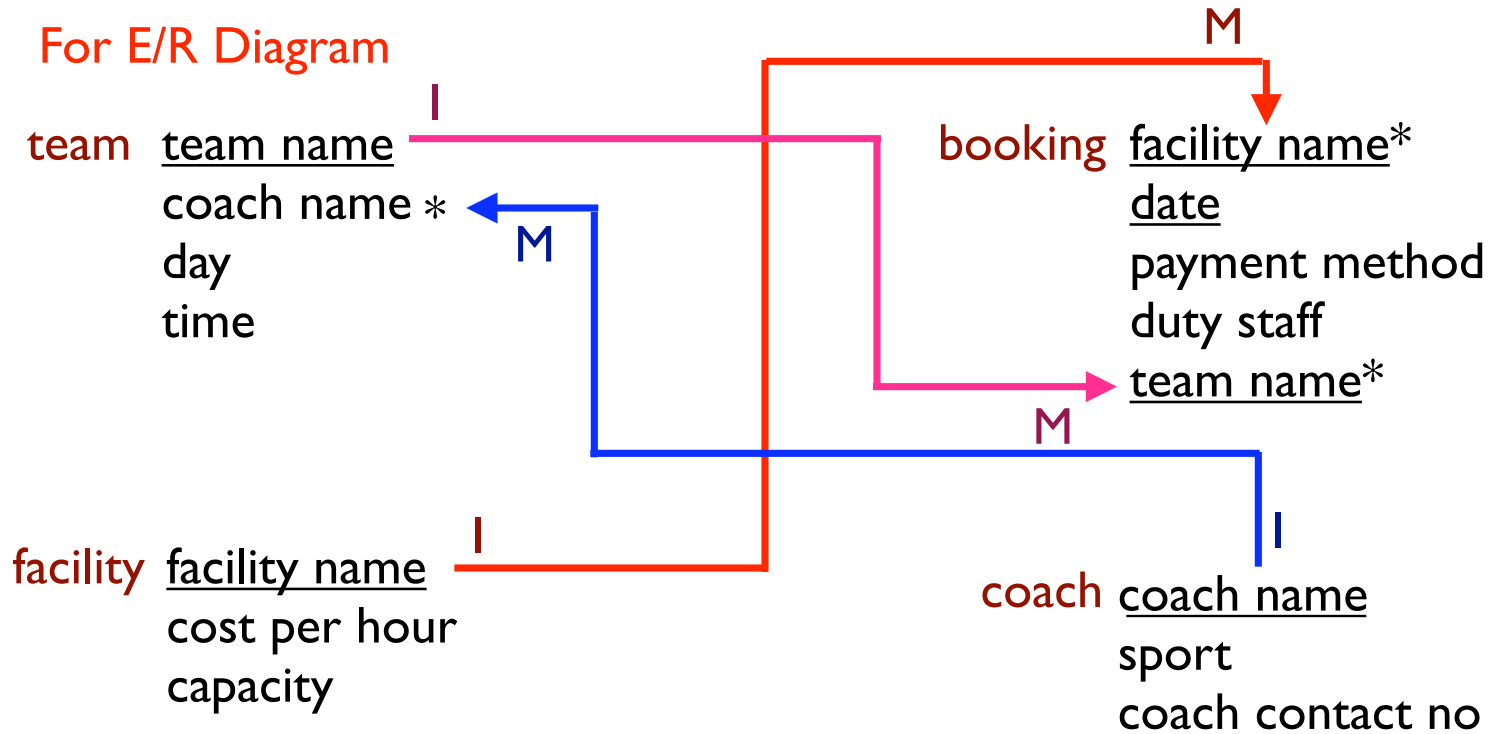
**booking** facility name\*  
date  
payment method  
duty staff  
team name\*

**facility** facility name  
cost per hour  
capacity

**coach** coach name  
sport  
coach contact no

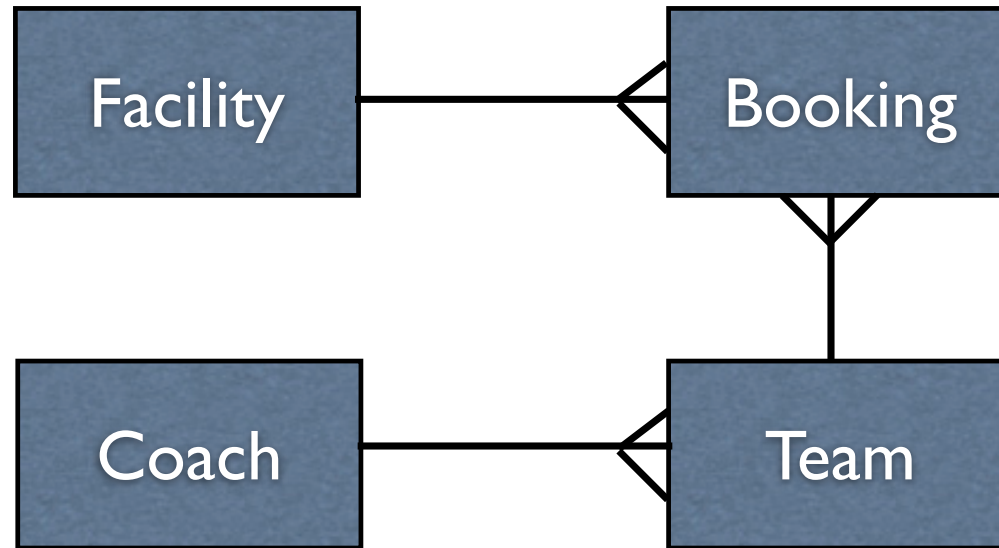
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For E/R Diagram



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## Entity Relationship Diagram



| facility has many bookings.  
| team makes many bookings.  
| coach takes many teams

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## 2. Using Filemaker Pro you would:

Create a new report in the team table.

Create a new count field, called sessions in x table which counts team name in team bookings table.

Add the following fields: team (from team table) and sessions from x table to the sub-summary (sorted by team name) and date from team bookings table (which will not be printed) to the body.

Perform a search in date field as: 01/06/08 ... 30/06/08.

Sort by team name.

View report in preview mode.