

To prepare for this homework session, see if you can answer the following questions. The answers will be provided during the presentation.

1. A food outlet information system contains details of the products and their suppliers. Part of the data dictionary for the Product entity is shown below:

Attribute	Type	Size	PK/FK	Unique	Validation/Format	Sample
ProductID	Text	3			Single capital letter, 2 numbers	V12
Description	Text	20				Lasagne
Diet	Text	10			Normal, Vegetarian or Vegan	Normal
Purchase price	Number					£1.00
Selling price	Number					£2.00
SupplierID	Text	7			Lookup from SUPPLIER	ABC1234

Identify the Primary key and Foreign key in the above table and state the associated value for the Unique column for these keys.

2. An information system contains the following tables:

`ATHLETE`(athleteID, firstname, surname, DOB, country)

`COUNTRY`(country, continent, number of medals)

- a) A sports commentator uses the system to find information about athletes. Write the SQL code to display the number of Scottish athletes.  
b) Write the code to execute this script using a server-side scripting language.
3. Server side scripting is used to extract the data from a database table called `hillruns`. The contents of the `hillruns` table are shown below.

trackid	rundate	trackname	distancekm	heightgainedm	timemins	comments
A34179	12/Nov/2014	Pentlands Run	10.45	350	85	Wet and windy
B32334	15/Nov/2014	Moorfoots	12.13	200	90	Quite nice run
G55493	18/Nov/2014	Pentlands Run	10.45	348	81	Misty
A92894	21/Nov/2014	Pentlands Run	10.44	349	83	Sunny and warm

Write an SQL query to show all runs with the `trackname` 'Pentlands Run', sorted into order of `timemins`, with quickest run listed first.