

**Designing and Creating a Database: Consolidation**

- Q1. Below is an example of a form that is completed by all staff that work for Advance Australia Company. This form is used whenever an employee has attended a computer course. Note, one employee can attend many courses.

ID Number:	
Surname:	
First Name:	
Department:	
Comp. Course No.	
Computer Course:	
Date Attended:	
Cost of Course:	

Create an ER diagram. Make sure you include:

- Entities (tables)
- Attributes and their data types
- Relationships between tables
- Primary and Foreign keys marked

Q2. Create the following tables in *AACyourName* database:

tblEmployee

	Field	Type	Collation	Attributes	Null	Default	Extra
<input type="checkbox"/>	<u>EmpID</u>	smallint(6)			No		auto_increment
<input type="checkbox"/>	Surname	varchar(50)	latin1_swedish_ci		No		
<input type="checkbox"/>	FirstName	varchar(30)	latin1_swedish_ci		No		
<input type="checkbox"/>	Department	varchar(50)	latin1_swedish_ci		No		

where 'EmpID' is a Primary field

tblCourse

	Field	Type	Collation	Attributes	Null	Default	Extra
<input type="checkbox"/>	<u>CourseID</u>	char(4)	latin1_swedish_ci		No		
<input type="checkbox"/>	CourseName	varchar(40)	latin1_swedish_ci		No		
<input type="checkbox"/>	Cost	decimal(6,2)			Yes	NULL	

where 'CourseID' is a Primary field

tblAttendance

	Field	Type	Collation	Attributes	Null	Default	Extra
<input type="checkbox"/>	<u>AttendanceID</u>	bigint(20)			No		auto_increment
<input type="checkbox"/>	EmpID	smallint(6)			No		
<input type="checkbox"/>	CourseID	char(4)	latin1_swedish_ci		No		
<input type="checkbox"/>	Date	date			No		

where 'AttendanceID' is a Primary field

Q3. Populate the tables with the following data:

tblEmployee

EmpID	Surname	FirstName	Department
1	Jones	Tom	Staff Services
2	Pitt	Brad	sales
3	Kidman	Nicole	Staff Services
4	Sellers	Peter	Sales
5	Smith	John	Administration
6	Lew	Jan	Administration

tblCourse

CourseID	CourseName	Cost
AC01	ACCESS 2003	700.00
EX02	EXCEL 2007	800.00
WD01	WORD 2003	600.00
PP02	Power Point 2007	500.00
AC02	ACCESS 2007	850.00
WD02	WORD 2007	900.00

tblAttendance

AttendanceID	EmpID	CourseID	Date
1	2	AC01	2004-04-05
2	3	AC01	2004-06-07
3	1	AC02	2007-03-12
4	2	AC02	2007-04-08
5	3	AC02	2007-06-24
6	4	AC02	2008-03-15
7	1	WD01	2004-05-12
8	5	WD01	2005-06-07

- Q4. For the following questions:
- Construct the SQL statement to get the answer to that question
  - Show the output
1. List the full staff name and department in alphabetical order of surname
  2. List the course id, course description and cost in reverse cost order (i.e. highest to lowest)
  3. List course (all details) attended by Tom Jones
  4. List staff who have attended the course ACCESS 2007
  5. Display the highest cost for a course