Unit:
Database Design and Development

Assignment title:

Evans Conference Management

Autumn 2019

Important notes

- Please refer to the Assignment Presentation Requirements for advice on how to set out your assignment. These can be found on the NCC Education *Campus*. Click on Policies and Advice in the left-hand menu and look under the Advice section.
- You must read the NCC Education documents 'What is Academic Misconduct? Guidance for Candidates' and 'Avoiding Plagiarism and Collusion: Guidance for Candidates' and ensure that you acknowledge all the sources that you use in your work. These documents are available on *Campus*. Click on Policies and Advice in the left-hand menu and look under the Policies section.
- You **must** complete the **'Statement and Confirmation of Own Work'**. The form is available on *Campus*. Click on Policies and Advice in the left-hand menu and look under the Policies section.
- Please make a note of the recommended word count. You could lose marks if you write 10% more or less than this.
- You must submit a paper copy and digital copy (on disk or similarly acceptable medium). Media containing viruses, or media that cannot be run directly, will result in a fail grade being awarded for this assessment.
- All electronic media will be checked for plagiarism.

Introduction

This assignment is a number of parts. All parts of the assessment relate to the Evans Conference Management scenario below.

Scenario

Evans Conference Management is a company that organises academic conferences for third party organisations such as universities. They are based in Lincoln, United Kingdom but organise conferences across the United Kingdom.

A conference will be based at a particular venue situated at a particular location. A location might have one or more venues. Venues have different facilities, for example a venue might have a swimming pool, a restaurant and a gym.

A venue is made up of a number of different areas known as rooms. A room will contain items of equipment such as a PA system, PC or projector.

Each conference is made up of a set of time slots defined by their date and whether they are AM or PM. A time slot will be for a particular room and will have one or more speakers.

The system should be capable of storing all the information needed for Evans Conference Management to carry out their business. A number of additional requirements are outlined as in Task 2 below, including data entry and queries.

Please state any assumptions you have made about the scenario.

Please Note: The data shown in the assignment is not necessarily normalised, and that it is the candidate's task to organise the data in the most optimal way possible. For example, the paper records shown below will not necessarily map directly to database tables. The candidate is expected to use these tables as a starting point for their own normalisation and optimisation of the Evans Conference Management.

Please Note: not all current records have codes numbers or ID numbers as unique identifiers. For example rooms, speakers and locations do not. It is up to the developer to decide whether and how to implement identifiers for these records.

Please note also that all SQL scripts should be shown along with their results.

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Below are a sample of the paper records currently kept by Evans Conference Management. They should be taken as representative of a much larger data set.

Document 1. Conference Record

Location	Venue ID	Venue Name	Conference Code	Conference Name	Conference Organisation	Start Date	End Date
London	UCL	University College London	CLC18	Celtic Language Conference	European Languages Group	01/MAR/18	01/MAR/18
Manchester	MMU	Manchester Metropolitan University	ERB18	Early Roman Britain	Ancient History Society	03/OCT/18	05/OCT/18
Cambridge	ARU	Anglia Ruskin University	DSC19	Development Studies Conference	Development Studies Group	01/MAR/19	03/MAR/19
Manchester	MMU	Manchester Metropolitan University	CSC18	Catalan Studies Conference	European Languages Group	20/MAY/18	23/MAY/18
Manchester	BH	Brookes Hotel	STW19	Symposium on the Thirty Years War	Early Modern History Society	03/JAN/19	05/JAN/19
London	KCL	Kings College London	AHS18	Studies in African History	African History Society	03/MAY/18	03/MAY/18
Oxford	QVR	Queen Victoria Research Centre	VSC18	Victorian Studies Conference	The Victorian Studies Society	03/JAN/18	04/JAN/18
Oxford	OXB	Oxford Brookes	ERG18	Early Railways Conference	Early Railways Study Group	19/JAN/18/	21/JAN/18

NOTE: You may decide to introduce a location code to the database rather than just using location name.

Document 2. Conference Details for one example conference

Conference Code: VSC18

Date	Slot	Room	Speakers	Topic Title
03/JAN/2018	AM	Manston Hall	Joshua Patterson	Poetry of Matthew Arnold
03/JAN/2018	AM	Robin Hall	Glenda Smith Mark Reynolds	Influences of Darwin on the Romantic Novel
03/JAN/2018	PM	Manston Hall	Joshua Patterson	The Oxford Movement
03/JAN/2018	PM	Robin Hall	Abel Kelani	Ruskin, Morris and responses to the industrial revolution
04/JAN/2018	AM	Manston Hall	Glenda Smith Mark Reynolds	Imperial Dreams of Popular Fiction
04/JAN/2018	AM	Robin Hall	Albert Dean	Dickens and the City

Document 3. Venue Facility Type Record

Venue Code	Swimming Pool	Restaurant	Gym	On-site Accommodation	Smart Office Space
UCL	Y	Y	Y	Y	Y
MMU	Y	Y	Y	Y	Y
ARU	N	Y	N	Y	N
BH	N	Y	N	Y	N
KCL	N	Y	N	N	N
QVR	N	N	N	N	N
OXB	Y	Y	Y	Y	Y

Document 4. Room Equipment Type Record for one example venue

Venue ID: QVR

Room Name	Projector	Wi Fi	Smart Board	PC	PA System
Manston Hall	N	N	Y	Y	Y
Robin Hall	Y	N	N	Y	Y

End of Case Study

Task 1 – 35 Marks

a. Produce an entity relationship model for the proposed database system for Evans Conference Management **(15 marks)**
b. Show normalisation for Document 1 the Conference Record. You should explain normalisation **and** how you have applied it. **(10 marks)**
c. Produce a data dictionary for your proposed system. **(10 marks)**

Task 2 – 30 Marks

a) Create the tables in SQL and show the CREATE scripts as running in the programming environment. **(5 marks)**
b) Create data on all locations, venues, conferences **and** conference organisations shown in the assignment. Provide a screen shot of the data. **(1 mark).**
c) Create data for rooms **and** time slots shown in assignment. Provide a screen shot of the data
(1 mark).
d) Create data on all the venue facilities. Provide a screen shot of the data. **(1 mark)**
e) Create data showing all the room equipment. Provide a screen shot of the data. **(1 mark)**
f) Write a query that selects the conference codes **and** conference organisations for conferences in Manchester. **(3 marks).**
g) Write a query that selects the start dates for all the London based conferences. **(3 marks).**
h) Write a query that shows the details for conference VSC18 as shown in Document 2. **(3 marks).**
i) Write a query that shows the equipment in Manston Hall **(3 marks).**
j) Write a query to show the facilities available at University College London (**3 marks).**
k) Update the speaker for the AM slot in Manston Hall on the 03/JAN/2018 to *Robert Matthews*. **(3 marks).**
l) Alter the database so that it keeps a record of the number of seats available in each room. **(3 marks)**

Task 3 – 15 Marks

The company have said they would like to extend the database to include costing information for each of their conferences so that they can more accurately bill their customers, the organisations for whom they are arranging the conference. Data should be kept on the cost of hiring venues **and** paying speakers. There should be a way of recording any additional expenses. You should include an outline of how you would derive costing information using SQL **and** specify the method of implementing any changes required to derive this costing information.

Task 4 – 10 Marks

In the future Evans Conference Management could expand as an organisation by merging with other similar companies across the UK and the Republic of Ireland. Describe the factors that might make them consider implementing a distributed database.

Task 5 – 10 Marks

Give an evaluation of how the work you have done has met the requirements of the company. This should include data storage **and** applications. Please identify any assumptions you have made.

Submission requirements

- Your submission should be in the form of a single word-processed document that includes any necessary diagrams.
- The word count for the document is **2000 words** (excluding text in any diagrams). You should explain any assumptions you have made.
- A digital version must be submitted on a CD, USB flash drive or other similarly acceptable medium, **along with a copy of the developed database**.

Candidate checklist

Please use the following checklist to ensure that your work is ready for submission.

Have you read the NCC Education documents 'What is Academic Misconduct? Guidance for Candidates' and 'Avoiding Plagiarism and Collusion: Guidance for Candidates' and ensured that you have acknowledged all the sources that you have used in your work? ❑

Have you completed the 'Statement and Confirmation of Own Work' form and attached it to your assignment? **You must do this.** ❑

Have you ensured that your work has not gone over or under the recommended word count by more than 10%? ❑

Have you ensured that your work does not contain viruses and can be run directly? ❑