Unit:
Database Design and Development

Assignment title:
Edge Entertainment

June 2018

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 contains 4 parts: design; data and queries; derived data; and an evaluation. All parts of the assessment relate to *the Edge Entertainment* scenario below.

Scenario

Edge Entertainment specialise in organising outdoor musical festivals in the United Kingdom. These events usually last one or more days. A festival includes provision for entertainment stages where artists such as popular music bands perform. Performance times for artists are allocated in two hour slots. This includes the time for stage crew to clear and prepare the equipment for that artist's performance. A particular artist might perform in more than one slot but each slot has only one artist. Note that an artist might be a group of musicians or a solo performer.

Each festival should have an overall start date and end date.

Note that a slot number does not have a standard starting time, the starting time will depend on the particular festival schedule. Where a festival has more than one day the identity of the slot will need to include the day. Where a festival has more than one stage then the identifier of a slot will need to include the identity of the stage (see for example the data for the Carson Festival on the festival schedule record below).

Each day of a festival is given a unique serial number as well as the day number indicating which day it is for that particular festival.

Artists are classified by type depending on the type of music they play.

Each stage will have a number of pieces of equipment allocated to it. This is the non-musical equipment such as lighting and video equipment. Note that musical instruments are the responsibility of the artists and their road crew and fall outside the scope of Edge Entertainment's management. Edge Entertainment own several copies of each piece of equipment such as the "D and B Audiotechnik sound system". Therefore a piece of equipment can be allocated to more than one stage.

Each festival will also have vendors who sell food, drink and souvenirs. Vendors are classified by type depending on what they sell. A vendor can be present at more than one festival.

Please Note: The data shown in the assignment is not necessarily normalised and that it 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 data base tables. The candidate is expected to use these tables as a starting point for their own normalisation and optimisation of the *Edge Entertainment* data. **Please note also** that all SQL scripts should be shown along with their results.

Below are a sample of the paper records currently kept by the company:

Festival Schedule

Festival	Day Serial Number	Day No	Date	Stage	Slot	Slot Time	Artist	Artist Type
Leyton Fest	12345	1	22nd July 2018	LF-Main	1	4.00pm to 6.00pm	The Beat	Ska
Leyton Fest	12345	1	22nd July 2018	LF-Main	2	6.00pm to 8.00pm	The Selector	Ska
Leyton Fest	12345	1	22nd July 2018	LF-Main	3	8.00pm to 10.00pm	Big Sound	Ska
Leyton Fest	12346	2	23nd July 2018	LF-Main	1	11.00am to 1.00pm	Rapid Mountain Band	Jazz
Leyton Fest	12346	2	23nd July 2018	LF-Main	2	1.00pm to 3.00pm	Elsie Smith	Jazz
Leyton Fest	12346	2	23nd July 2018	LF-Main	3	3.00pm to 5.00pm	Eastside Jazz Band	Jazz
Wonderland Rock Festival	12350	1	1st August 2018	WR-Main	1	5.00pm to 7.00pm	Saxon	Rock
Wonderland Rock Festival	12350	1	1st August 2018	WR-Main	2	7.00pm to 9.00pm	White Snake	Rock
Wonderland Rock Festival	12351	2	2nd August 2018	WR-Main	1	5.00pm to 7.00pm	Le Mat	Rock
Wonderland Rock Festival	12351	2	2nd August 2018	WR-Main	2	7.00pm to 9.00pm	Dark Sound	Rock
Carson Festival	12355	1	5th August 2018	CF-Stage 1	1	1.00pm to 3.00pm	Blue Mountain Boys	Country
Carson Festival	12355	1	5th August 2018	CF-Stage 1	2	3.00pm to 5.00pm	Swamp Devils	Country
Carson Festival	12355	1	5th August 2018	CF-Stage 2	1	1.00pm to 3.00pm	Farmer Jones Band	Country
Carson Festival	12355	1	5th August 2018	CF-Stage 2	2	3.00pm to 5.00pm	Rapid Mountain Band	Country
Carson Festival	12356	2	6th August 2018	CF-Stage 1	1	12.00-2.00pm	Ugly Boys	Country
Carson Festival	12356	2	6th August 2018	CF-Stage 2	1	12:00-2.00pm	Green Mountain Girls	Country

Vendors at Festivals

Festival Name	Vendor	Vendor Type
Leyton Fest	Workers Drinks Company	Food and Drink
Wonderland Rock Festival	Workers Drinks Company	Food and Drink
Wonderland Rock Festival	Metal Hammer	Promotional Material
Wonderland Rock Festival	Burger Clan	Food and Drink
Wonderland Rock Festival	Texas Chicken	Food and Drink
Carson Festival	Country Craft	Craft Activities

Stage Equipment at Festivals

Festival Name	Stage	Equipment	Equipment Type
Carson Festival	CF-Stage 1	Par 64 lighting system with 60K of lighting.	Lighting
Carson Festival	CF-Stage 1	D and B Audiotechnik sound systems	Sound
Carson Festival	CF-Stage 1	Yamaha Console CL Series	Sound
Carson Festival	CF-Stage 1	Lodestar electric chain hoist	Rigging
Carson Festival	CF-Stage 1	Prolyte truss and tower system	Rigging
Carson Festival	CF-Stage 2	Yamaha Console QL 99 Series	Sound
Carson Festival	CF-Stage 2	Robe LED Lighting system	Lighting
Carson Festival	CF-Stage 2	D and B Audiotechnik sound systems	Sound
Carson Festival	CF-Stage 2	Yamaha Console CL Series	Lighting
Carson Festival	CF-Stage 2	Lodestar electric chain hoist	Rigging
Carson Festival	CF-Stage 2	Roland Video Mixer	Audio Visual Equipment
Carson Festival	CF-Stage 2	Panasonic AG-HVX200 Camera	Audio Visual Equipment

Task 1 – Design (40 Marks)

a) Produce an entity relationship model for the proposed database system for *Edge Entertainment*. **(20 marks)**.

b) Show third normal form tables for the festival schedule document. Discuss how this normalisation has informed your database design. You should explain normalisation and HOW you have applied it in your answer. **(10 marks)**.

c) Produce a data dictionary showing the attributes identified for the proposed system, indication of primary and foreign keys, datatypes, lengths and any constraints. **(10 marks)**.

Task 2 – Data and Queries (32 Marks)

a) Create the database tables for the system using SQL. **(4 marks)**

b) Enter data for festivals and the days they are running shown in the assignment. Provide a screen shot of the data. **(1 mark)**.

c) Enter data for vendors and vendor types shown in the assignment. Provide a screen shot of the data **(1 mark)**.

d) Enter data on equipment and equipment types shown in the assignment. Provide a screen shot of the data. **(1 mark)**

e) Enter data showing all the stages, slots, artists and artist types at all the festivals shown in the assignment. Provide a screen shot of the data. **(1 mark)**

f) Write a query that selects all the festivals with the dates they are running **(3 marks)**.

g) Write a query that selects the artists performing at Leyton Fest. **(3 marks)**.

h) Write a query that selects all the dates and time slots for Jazz artists at all festivals **(3 marks)**.

i) Write a query that shows all the rigging equipment used on CF-Stage 1 at the Carson festival **(3 marks)**

j) Write a query that counts number of vendors at the Wonderland Rock Festival **(3 marks)**.

k) Write a query to show all Food and Drink vendors allocated to festivals in July 2018. **(3 marks)**.

l) Update the Carson Festival so that the rock band 'Alonso' replace 'Dark Sound'. They should have the same slot, date and stage as 'Dark Sound'. **(3 marks)**.

m) Alter the database so that it keeps a record of the ticket price for each festival. **(3 marks)**

Task 3 – Derived Data (13 Marks)

Edge Entertainment has said they would like to extend the database to include incomes and expenditure. They want to work out their main sources of income and expenditure. Income includes ticket sales and the fees paid by vendors to have stalls at festivals. Expenditure includes equipment hire and fees paid to performers. Explain how you would develop the database and derive data for a report that showed all the relevant income and expenditures.

Task 4 – Evaluation (15 Marks)

Provide an evaluation of how the work you have done has met the requirements of the company. This should include data storage and applications. You should also discuss how you have standardised the company's data. Your discussion should show: (1) an understanding of what the original requirements were **(5 marks)**; (2) how the initial design attempted to meet these requirements (**5 marks**); and (3) an overall assessment of how well the requirements have been met in the final implementation **(5 marks).**

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 **1250 words (+/- 250 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? ❑