Module Code & Module Title

CC4057NI Introduction to Information Systems

Assessment Weightage & Type

30% Individual Coursework

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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a marks of zero will be awarded.

Contents

1 Information system

1.0 What is an information system?

1.2 Write down your understanding. Give suitable examples where required.

Information system is a set of components for collecting, creating, storing, processing the data and distributing useful information that can be used for decision making in an organization.

Typically, Information system includes hardware, software and the data itself:

Hardware: It contains all the physical components where we can see and touch. Example; keyboards, iPads, Disk drives etc.

Software: It is the set of instructions that tells the hardware what to do.it cannot be touched.

Data: It is defined as the collection of raw information or facts or figure. Data can be anything like phone numbers, address etc.

Some of the types of information system are as follows;

A).General purpose information system: let's take an example a database management system (DBMS) is a combination of software and data that makes it possible and analyze data. DBMS is typically not designed to work with specific organization or specific type of analysis. Rather, it is a general purpose information system.

B).Specialized information system : In contrast , there are a number of specialized information system that have been specifically designed to carry out very specific tasks For example; Enterprise resource planning(ERP) is an information system used to integrate all the internal and external information across an entire organization. (Bourgeosis, 2012)

2. Database

2.1 What are databases?

2.2 What is the role of a database in an organization?

2.3 Write down your understandings with suitable examples where required.

Database is a collection of information that is organized so that it can be easily accessed, managed and updated. Most databases use Structured Query Language (SQL) for writing and querying data.

Example: SQL server, My SQL etc.

Database management system plays vital role to the operation of different organizations because they help to manage an organization in various databases. This system allows users to easily retrieve, update and generally manage data relevant to a business operation. A database can track sales, expences and other financial information.

Examples might be a shop's stock inventory or airline booking system.

Advantages of databases:

- Reduced data redundancy.
- Reduced updating errors and increased consistency.

- Greater data integrity and independence from applications programs.
- Improved data access to users through use of host and query languages.
- Improved data security.
- Reduced data entry, storage, and retrieval costs
- Facilitated development of new applications prom.

Disadvantages of databases:

- Database systems are complex, difficult, and time-consuming to design
- Substantial hardware and software start-up costs.
- Damage to database affects virtually all applications programs.
- Extensive conversion costs in moving form a file-based system to a database system. (cole's, database, 2017)

3): Select an organization of your choice and design a database for it. Explain your database design?

3.1) what is the database about?

Ans: The database is all about shoes which sells different brands of shoes like goldstar, addidas etc.

3.2) which each entity (table) represent ?

Here I've chosen entity for "shoes" and it includes different brands of shoes. It consists of four entities which are as follows

a) Suppliers
b) Products
c) Items
d) Customers

Suppliers: supplier represents the number of suppliers from where the shop purchase the products. Each supplier have their unique code for verification.

Products: It represent the single products and how many quantities are available in the shoes shop and who has supplied that product in the shop.

Items: Item represent the number of order items. Means the number of goods purchase by Customers.

Customer: customers represents the numbers ordered customers to purchase the shoes.

3.3 What each attribute (column) represents? What kind of data do they store?

Each attributes are;

1 Suppliers: suppliers contain suppliers ID, name and phone numbers.

```
MariaDB [shoes]> desc suppliers;
+------------+--------------+------+-----+---------+-------+
| Field      | Type         | Null | Key | Default | Extra |
+------------+--------------+------+-----+---------+-------+
| supplierID | int(11)      | NO   | PRI | NULL    |       |
| name       | varchar(255) | YES  |     | NULL    |       |
| address    | varchar(255) | YES  |     | NULL    |       |
| phone      | varchar(255) | YES  |     | NULL    |       |
+------------+--------------+------+-----+---------+-------+
```

Figure 1supplier

- Supplier id: it is used to store supplier unique id.
- Name: name is used to store name of items.
- Phone: it is used to store phone numbers.

2 SUPPLIERS TABLE ATTRIBUTE REPRESENT

2. Products; products contains product ID, product code, name, price and suppliers.

```
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| productID    | int(11)      | NO   | PRI | NULL    |       |
| product_code | varchar(255) | YES  |     | NULL    |       |
| name         | varchar(255) | YES  |     | NULL    |       |
| price        | int(11)      | YES  |     | NULL    |       |
| supplier     | int(11)      | YES  |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
```

Figure 3 products

- Product ID: it is used to store unique product ID.
- Product code: it is a special type of code in product.

- Name: It is used to give name of item

3. Items: items contain item ID, price and items name.

Field	Type	Null	Key	Default	Extra
itemsid	int(11)	YES		NULL	
price	decimal(10,0)	YES		NULL	
itemsname	varchar(255)	YES		NULL	

Figure 4items

- Items ID: it is used to give special id to the orders.
- Price: it shows the price of shoes.
- Items name: it is used to give name to the items.

4) Customer: It contains customer id, customer name , and phone numbers.

Field	Type	Null	Key	Default	Extra
customerid	int(11)	NO	PRI	NULL	
firstname	varchar(255)	YES		NULL	
lastname	varchar(255)	YES		NULL	
phone	varchar(255)	YES		NULL	

- *Figure 5 customer*

- Customer id is a special id used for customers.
- First name: it contain first name of customers
- Last name: it contain last name of customer.

4 ERD diagram and dummy data in the database

Question4. Present the above designed database in the form of tables with some dummy data. Also draw an entity-relationship diagram (ERD) for the databases.

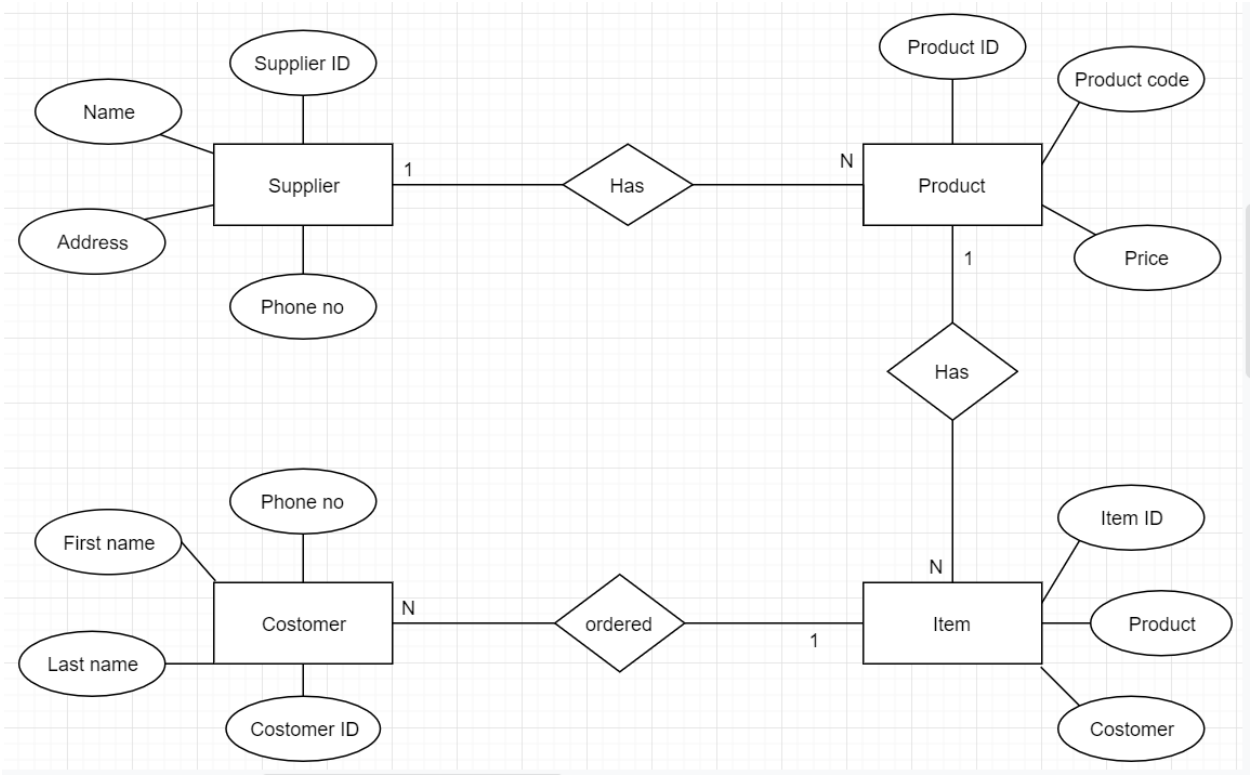

Figure 6 ERD diagram

Dummy data of above database are:

supplierID	name	address	phone
1	Goldstar	Nepal	144-22-12
2	Vans	USA	544-32-10
3	Addidas	Brazil	345-45-56

Figure 7suppliers dummy database

productID	product_code	name	price	supplier
1	aacd	Goldstar	2000	1
2	bbda	Vans	3000	2
3	ddea	Addidas	5000	3

Figure 8 products dummy database

itemsid	price	itemsname
1	2000	Goldstar
2	3000	Vans
3	5000	Addidas

Figure 9 items dummy database

customerid	firstname	lastname	phone
1	ram	joshi	8876
2	hari	yinchang	3321
3	palsi	cull	5434

Figure 10 customer dummy database

5. Personal Reflection

Write a personal reflection (max .800 words) of the learning process up to the moment. You may wish to summarize your thoughts on the following points.

5.1 Your preparation for the subject before you started the module

5.2 Your expectation from the module when you started

5.3) Looking back, were you able to meet those expectations.

5.4 How are you coping the requirements, are you managing it.

5.5 What are your current difficulties; if any what do you think you need to do to get the most out of this module.

Before joining this college. I did not had a lot of expectation. But after joining Islington college, I got counseled by some of the great counselor in the college and then I got high expectation from this module in real. About my preparation for the module before the module started. I was not so much confident and catchy because I'm completely new for this course before and I had no idea about it. Sometimes, I googled about this course to get knowledge and tricks so that it will be familiar for me when the module get started. But as far I didn't get that much clue and information as I expected before. But after when the course module started in the college. I get lot of useful details about the module and got habitual to this module. What I was expected

before, that there will be more practical works rather than the theory class. So that we can be more confident about this module and it will be more easier for me. But after the module goes on it started smoothly. I got a little similar as I think before and I've learned about many useful terms like networks, how the data are being started likewise, how the networks are formed and many more. Before joining this module I was very keen to know how the data are being sent and how we can intake data, now steadily and smoothly I'm able to get each and everything which I was eager to know before.

As of now, I have learned many new software and how those software works and for which purpose they are used. It was quite difficult for me to get and find the good and relevant information. But I tried as much as I can to get some good information. The main difficulties I get while making the project was to write in my own words. We were able to write the exact thing as in the book or information found in the internet . It was too difficult for me to write it with my own words and I did not give up. It was difficult to give and find the website which contains date, author, book name and so more. For managing such information I took help from my course teacher and friends they helped me a lot to give such details .The current difficulties that I've been facing right now is making the ER diagram I get little bit confused on it and . Some of the codding while making the database. I hope that sooner I'll came out from this confusion by help of my fellow friends and seniors. Also there is tutorial classes which all quires and confusion get clear which was left during lecture .There is also a lab class where we can do practically such information and topic which we have did in our lecture class and tutorial class. For overcoming such difficulties and doubts I have started to revise the lecture every day and ask the teachers about such topics when I got absent in the class. Now if I got any difficulties , I will try to solve it by myself by searching it on the google and youtube which can even help me to enhance my mind more practically.

Bibliography

Bourgeosis, D. (2012). *information systems*. Retrieved from https://opentextbook.site.

cole's, o. a. (2017, january). *database*. Retrieved from www.oracle.com.

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