

Assessment Submission Form

Student Number (If this is group work, please include the student numbers of all group participants)	G/H1024169
Assessment Title	Final Assessment
Module Code	Advanced Database M605
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Module Tutor	Alireza Mahmoudi
Date Submitted	21st September 21/09/2023

Declaration of Authorship

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Signed... Alireza Date 21/09/2023

GISMA UNIVERSITY OF APPLIED SCIENCES

POTSDAM, GERMANY

Instructor Name : Alireza Mahmoudi

Course Title : Advanced Database (M605)

Subject : Ecommerce DataBase

Submission Date : 21st September , 2023

Submitted by : AWAIS RAFI

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GITHUB REPOSITORY LINK :

<https://github.com/rafiaw01/M605-Advanced-Data-Base>

For further Understanding of the Database Kindly refer to the Github LINK .

Introduction:

The need for managing paperwork has ever been increasing with expanding Industries, government needing to manage data of citizens and services, airlines to manage passenger data and movement of freight. The list is never ending. However, the struggle starts when the need arises to organize the data in a efficient manner. Structured Query Language (SQL) offers the solution in the form of managing databases in a structured manner and reports can also be easily generated.

What is Ecommerce:

The usual routine of visiting shopping stores to purchase clothes, gadgets, hardware tools, grocery shopping, furniture or any other consumable and no consumable item has been challenged with the Internet Boom that took place in early 200s. With Ecommerce Giants like Amazon and Alibaba on the map the way shopping is done has changed drastically. Markets are no longer bound by borders or logistic concerns. A product in even on an Island can be delivered across the globe in a short time. Such a transformation is called Ecommerce, it just doesn't apply to trading of consumable goods but also towards any and everything that can be traded.

Project Introduction:

A Consumer Supermarket wants to Establish a database of all the products in its inventory and now requires technical expertise to have a computer-based model so that customers can be provided with a efficient interface to deal with orders and the store itself can manage and track orders and connect with vendors. Thus, reducing paperwork.

Database Design:

The initial design step is to use Graphical Design Software to design a ER (Entity Relationship) diagram of all the Tables that will be part of the Database design .Once an ER Diagram has been established a SQL Development Environment called XAMPP will be used to connect to a SQL server.

Database Queries:

1) Creating a Table

```
CREATE TABLE customer (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    first_name VARCHAR (50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    customer_email VARCHAR(80),  
    customer_address VARCHAR(50),  
    contact_number VARCHAR(250),  
    customer_review INT NOT NULL,  
    FOREIGN KEY(customer_review_id) REFERENCES customer_review(id)  
);
```

As it can be seen **CREATE TABLE** is a standard SQL query for creating a table, in this case the table being generated is **customer**.

VARCHAR is the datatype with a character length of 50 , INT NOT NULL means integer value with a NOT NULL as in the data field cannot be left empty.

2) Adding a Column to an Existing Table

```
ALTER TABLE supplier_info  
ADD shipping_info_id VARCHAR (100) NOT NULL;
```

The alter table query initiates a change in a table followed by the table name, the ADD query adds the column type and datatype as well.































3) Creating a View (the benefit is to create a window for a SQL query so that every time the view is used it gives out the same result.)

```
CREATE VIEW customer_address AS
```

```
SELECT customer_address
```

```
FROM customer
```










The above query creates a VIEW with customer_address as the name of the view and SELECT uses the customer_address column and FROM uses the name of the table

				customer_address
<input type="checkbox"/>	 Edit	 Copy	 Delete	michaelkirch
<input type="checkbox"/>	 Edit	 Copy	 Delete	kirchmicahel
<input type="checkbox"/>	 Edit	 Copy	 Delete	kirchstrasse
<input type="checkbox"/>	 Edit	 Copy	 Delete	michstrasse
<input type="checkbox"/>	 Edit	 Copy	 Delete	bangkirchstrase
<input type="checkbox"/>	 Edit	 Copy	 Delete	bananaestrass
<input type="checkbox"/>	 Edit	 Copy	 Delete	zebrstrasse
<input type="checkbox"/>	 Edit	 Copy	 Delete	sweetkirch
<input type="checkbox"/>	 Edit	 Copy	 Delete	berlinkirch
<input type="checkbox"/>	 Edit	 Copy	 Delete	eggsykirch

4) SQL Query for Most sold Items is as follows:

```
SELECT *  
  
FROM customer_order  
  
WHERE total_order_amount = 66.23;
```

The output is as follows:

					id	date_of_order	total_order_amount	customer_id	order_type
<input type="checkbox"/>	 Edit	 Copy	 Delete	6	01-03-23	66.23	6	0	
<input type="checkbox"/>	 Edit	 Copy	 Delete	7	05-03-23	66.23	7	0	
<input type="checkbox"/>	 Edit	 Copy	 Delete	11	06-03-23	66.23	11	11	

5) SQL Query for Finding Very Good as a comment entry in a customer_review table:




```
SELECT DISTINCT  
  
comment  
  
FROM customer_review  
  
WHERE comment LIKE 'Very Good%'
```

The result of the Query is :

☐ Show all | Number of rows: 25 ▼






Extra options

←T→

☐  Edit  Copy  Delete

comment

Very Good

 ☐ Check all With selected:  Edit  Copy  Delete  Export
















☐ Show all | Number of rows: 25 ▼

6) SQL Query for finding inventory_status with Available and Not_Available Entries:

SELECT *

FROM warehouse_inventory

WHERE inventory_status LIKE '%Not-Available%'
















←T→		id	floor	zone	inventory_status
<input type="checkbox"/>	 Edit  Copy  Delete	1	2	E	Not-Available
<input type="checkbox"/>	 Edit  Copy  Delete	3	3	E	Not-Available
<input type="checkbox"/>	 Edit  Copy  Delete	5	1	C	Not-Available
<input type="checkbox"/>	 Edit  Copy  Delete	7	4	A	Not-Available
<input type="checkbox"/>	 Edit  Copy  Delete	10	1	B	Not-Available

7) SQL Query Using VIEW for finding inventory_status of Available:

SELECT *

FROM warehouse_inventory_view

WHERE inventory_status = 'Available'







				id	floor	zone	inventory_status
<input type="checkbox"/>		Edit		Copy		Delete	2 1 A Available
<input type="checkbox"/>		Edit		Copy		Delete	4 2 B Available
<input type="checkbox"/>		Edit		Copy		Delete	6 4 C Available
<input type="checkbox"/>		Edit		Copy		Delete	8 1 E Available
<input type="checkbox"/>		Edit		Copy		Delete	9 3 A Available

8) SQL Query for finding warehouse_inventory with Floor as 2:

SELECT *

FROM warehouse_inventory

WHERE Floor = 2

				id	floor	zone	inventory_status
<input type="checkbox"/>		Edit		Copy		Delete	1 2 E Not-Available
<input type="checkbox"/>		Edit		Copy		Delete	4 2 B Available

9) Creating a Union between Customer and Customer_order Table :

CREATE VIEW customer_order_union AS

SELECT * FROM customer

UNION ALL

SELECT * FROM customer_order

10) Creating a view in shipping_info and using group by:

```
CREATE VIEW shipping_company_name (shipping_info,shipping_count)

AS SELECT shipping_company,COUNT(*)

FROM shipping_info

GROUP BY shipping_company
```

References:

<https://support.microsoft.com/en-gb/office/database-design-basics-eb2159cf-1e30-401a-8084-bd4f9c9ca1f5>