



Faculty of Engineering & Technology
Semester End Examination Question Paper – B. Tech.

Department: Computer Science and Engineering
Course: B. Tech. in Computer Science and Engineering
Semester/Batch: 6th / 2018
Course Code: CSC404A
Course Title: Web architecture and Application development laboratory

Semester End Examination –
Practical/Laboratory

INSTRUCTIONS TO STUDENTS:

1. Answer THE PARTICULAR QUESTION assigned to you by the Examiner
2. Use only SI units
3. Use of non-programmable scientific calculator is permitted
4. Use of data handbook permitted wherever applicable
5. Missing data may be appropriately assumed

Maximum Duration: 3 Hours

Maximum Marks: 50

Scenario:

An online laptop store, has several products like Dell Inspiron, Lenovo i8, Dell studio, Dell Vostro, HP pavilion, HP i6 and MAC air. The item attributes are Id, laptop make, laptop description, discount and cost.

Design a database and create a web application with HTML user interface connecting the database using PHP. The application displays the database details in HTML page in a table format, where the items with more than 20% discount are shown.

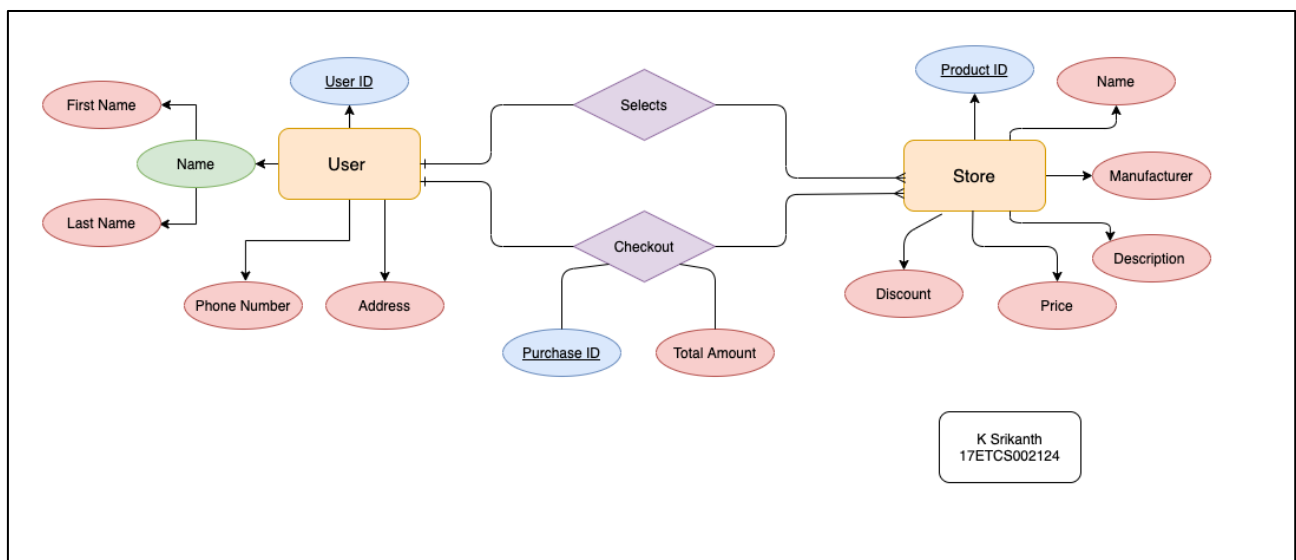
You are required to document design and implementation including:

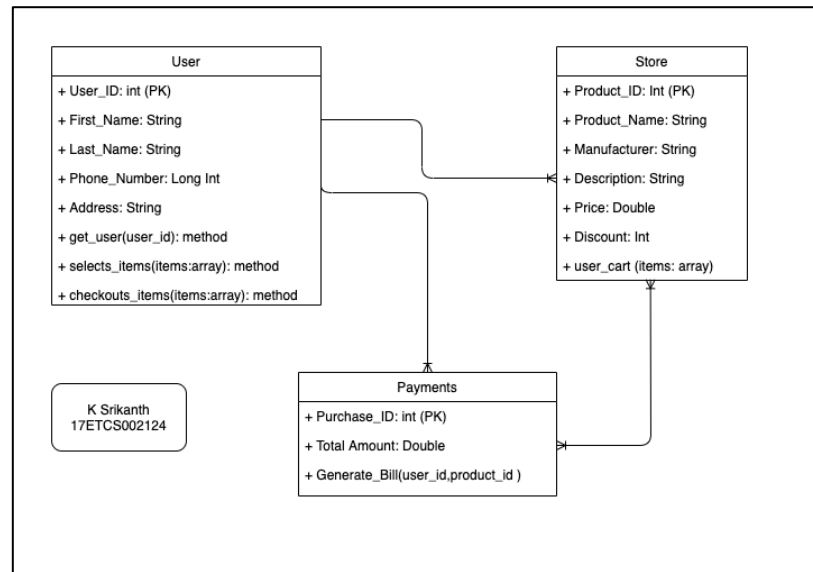
- a. Development of ER diagram and class diagram for the above scenario considering a registered user with valid attributes for both the diagrams
- b. Creation of database
- c. Source code with documentation
- d. Result screenshots

e. Analysis and discussion

Sl. No.	Item	Maximum Marks	Marks Obtained
1	ER and Class diagram for the scenario a	10	
2	Database + Source code and documentation + Results + Analysis and Discussion b + c + d + e	13 + 15 + 5 + 7 = 40	
	Total	50	
	Final Score	25	

Solution:

a. ER diagram and Class diagramEntity Relation Diagram

Class Diagram**b. Creation of the database**Steps to Create a database

1. create database exam
2. use exam
3. create table store (product_id int,name varchar(50),manufacturer varchar(50),price double(10,0),discount(10,0),description varchar(100),primary key(product_id))
4. insert into store values (1,"dell latitude e6420","dell",20000,15,"Nice Laptop")

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	product_id	int(11)			No	None			Change
<input type="checkbox"/> 2	name	varchar(50)	utf8mb4_general_ci		No	None			Change
<input type="checkbox"/> 3	manufacturer	varchar(50)	utf8mb4_general_ci		No	None			Change
<input type="checkbox"/> 4	price	decimal(10,0)			No	None			Change
<input type="checkbox"/> 5	discount	decimal(10,0)			No	None			Change
<input type="checkbox"/> 6	description	varchar(100)	utf8mb4_general_ci		No	None			Change

Figure 1 Image Showing the metadata for the database

	product_id	name	manufacturer	price	discount	description
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	dell latitude e6420	dell	20000	15	Nice Laptop
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	dell latitude 7310	dell	70000	25	Good specs in the price range
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	dell inspiron	dell	50000	30	intel i5
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	4	lenovo yoga	lenovo	40000	15	notebook
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	5	Hp elitebook	Hp	80000	15	intel i5 powered with premium ssd
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	6	MacBook Pro	apple	200000	25	M1 powered

Figure 2 Image Showing the data in the database

c. Source Code with documentation

```

<body>

<?php

$con = mysqli_connect("localhost", "root", "", "exam");

$store_query = "SELECT * FROM store where discount>20";

$result = mysqli_query($con, $store_query);

if ($result) {
    echo "
    <table border='1'>
    <h5>Welcome to our store</h5>
    <thead class='thead-dark'>
    <tr>
    <th>ProductId</th>
    <th>Product Name</th>
    <th>Description</th>
    <th>Manufacturer</th>
    <th>Price</th>
    <th>Discount</th>
    </tr>
    </thead>";
    while ($row = mysqli_fetch_assoc($result)) {
        echo "<tr>";
        echo "<td><center>" . $row["product_id"] . "</center></td>";
        echo "<td><center>" . $row["name"] . "</center></td>";
        echo "<td><center>" . $row["description"] . "</center></td>";
        echo "<td><center>" . $row["manufacturer"] . "</center></td>";
        echo "<td><center>" . $row["price"] . "</center></td>";
        echo "<td><center>" . $row["discount"] . "</center></td>";
        echo "</tr>";
    }
}
?>
</body>

```

d. Results

Welcome to our store

ProductId	Product Name	Description	Manufacturer	Price	Discount
2	dell latitude 7310	dell	70000	25	Good specs in the price range
3	dell inspiron	dell	50000	30	intel i5
6	MacBook Pro	apple	200000	25	M1 powered

e. Analysis and Discussion

Successfully conducted the given questions without any errors. Completed the given task of displaying the database details in HTML page in a table format, where laptops list which are at discount above 20%. All the code is executed in a PHP header inside <body> tag.

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