SALES MANAGEMENT SYSTEM

DATABASE PROJECT REPORT

SUBMITTED BY

Name: DEEKSHA K **USN:1MS21AD019**

Name: M NANDITHA PRABHU **USN:1MS21AD029**

Name: PREETHI V J **USN:1MS21AD038**

Name: SRI POORVA DEVI E R **USN:1MS21AD051**

As part of the Course **Database Systems– AD32**

SUPERVISED BY

Faculty

VINAY T R
ASSISTANT PROFESSOR
DEPARTMENT OF AI and DS

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

RAMAIAH INSTITUTE OF TECHNOLOGY

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Department of Artificial Intelligence and Data Science

Ramaiah Institute of Technology

(Autonomous Institute, Affiliated to VTU)

Bangalore

CERTIFICATE

This is to certify that **DEEKSHA.K:(1MS21AD019), M NANDITHA PRABHU:(1MS21AD029), PREETHI.V.J:(1MS21AD038), POORVA:(1MS21AD051)** have completed the **SALES MANAGEMENT SYSTEM PROJECT** as part of Database Project. We declare that the entire content embodied in this B.E. 3rd Semester report contents are not plagiarized.

Submitted by:

Name: DEEKSHA K	USN:1MS21AD019
Name: M NANDITHA P	USN:1MS21AD029
Name: PREETHI V J	USN:1MS21AD038
Name: SRIPOORVA E R	USN:1MS21AD051

Guided by

Vinay T R

(Dept of AI&DS, RIT)

RAMAIAH
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Department of Artificial Intelligence and Data Science

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(Autonomous Institute, Affiliated to VTU)
Bangalore – 54

Evaluation Sheet

Sl. No	USN	Name	Research Content understanding and Coding (10)	Demo & Report submission (10)	Total Marks (20)

Evaluated By:

(Vinay T R)
Assistant Professor
AI&DS, RIT

CONTENTS

1. CONTENT'S ABSTRACT

The purpose of the Sales Management System is to automate the existing manual system with the help of computerized equipment and full-fledged computer software, fulfilling their requirements so that their valuable data can be stored for a longer period with easy access and manipulation of the same.

Sales Management System, as described above, can lead to an error-free, secure, reliable, and fast management system. It can assist the user to concentrate on their other activities rather than concentrate on record keeping. Thus, it will help organizations better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

This project is about how to effectively retrieve the sales history of the customer. It was carried out to find how customers and salespersons can access the purchase history without any difficulties.

2. INTRODUCTION

The “Sales Management System” is based on the sales transaction of items in a supermarket. The salesperson will enter the details of the customer and the product while creating the invoice. Invoice ID will be generated at the time of billing. This Invoice ID is unique and will be the most helpful attribute which can in the future be used to retrieve all the other details of the customer or the item purchased in case of any issues or clarification. This will make the sales very transparent without any ambiguity or confusion about the purchase. This history of purchase will allow the company to keep track of all the previous employees and can generate a report according to the need. This can also be used by the customers to check their purchase history in that particular company.

3. BACKGROUND, MOTIVATION AND SCOPE

3.1 BACKGROUND

Sales encounter so many problems because of the current system they are using which is the manual way of storing records and doing calculations. They use books to store all records.This project is intended to solve the problem that is encountered by the current system of sales which is a manual way of entering data (using a calculator).

This project is intended to build a suitable system for storing all the records by designing a database for a new system. The new system will create a user interface that will allow users to enter and retrieve the data in and from the database. All the records about sales and purchases will also be stored in the database for future use.

3.2 MOTIVATION

Among many problems associated with the time, lack of training for the employees, lack of enough facilities like computers that can respond to different queries and inbuilt software to support the DB to and cost and the possible guidelines that can be provided to improve management of the sales.

This survey research design can be adopted by many organizations to modernize the method of how data from day-to-day sales can be used to produce weekly reports for the manager. If we use this method, it will bring about a fabulous outcome.

3.3 SCOPE OF THE PROJECT

- It will focus on storing items in the database.
- It will help in retrieving data of any customer who purchased an item in any of the branches of the supermarket.
- It also focuses on creating a user interface that will allow users to enter primary data like Invoice ID which will be given while generating the invoice and fetching all the other data.
- It reduces physical storage since most of the data will be kept intact in the database.
- It may help collect perfect management in detail. In a very short time, the collection will be obvious, simple, and sensible.
- It will satisfy the user's requirement.

4. METHODOLOGY

Database name: `supermarket`.

Entities:

- sales
- customer
- branch
- payment gateway
- product line
- customer type

Among the tables mentioned above, sales and customer tables are major tables that consist of 1000 rows. Other tables are referencing tables from the sales table which contains additional information.

Attributes:

- sales
  - Invoice_id
  - Branch
  - Product Line
  - Unit price
  - Quantity
  - Tax
  - Total
  - date_
  - time_
  - Payment
  - Rating
  - Customer_id

- customer
  - Customer_type_id
  - Gender
  - Phone_no
  - Customer_name

- Customer_id
- product_line
  - class
  - class_id
- customertype
  - Customer_type_id
  - Customer_type
- branch
  - branch_id
  - branch_name
- payment_gateway
  - payment_type_id
  - payment_type

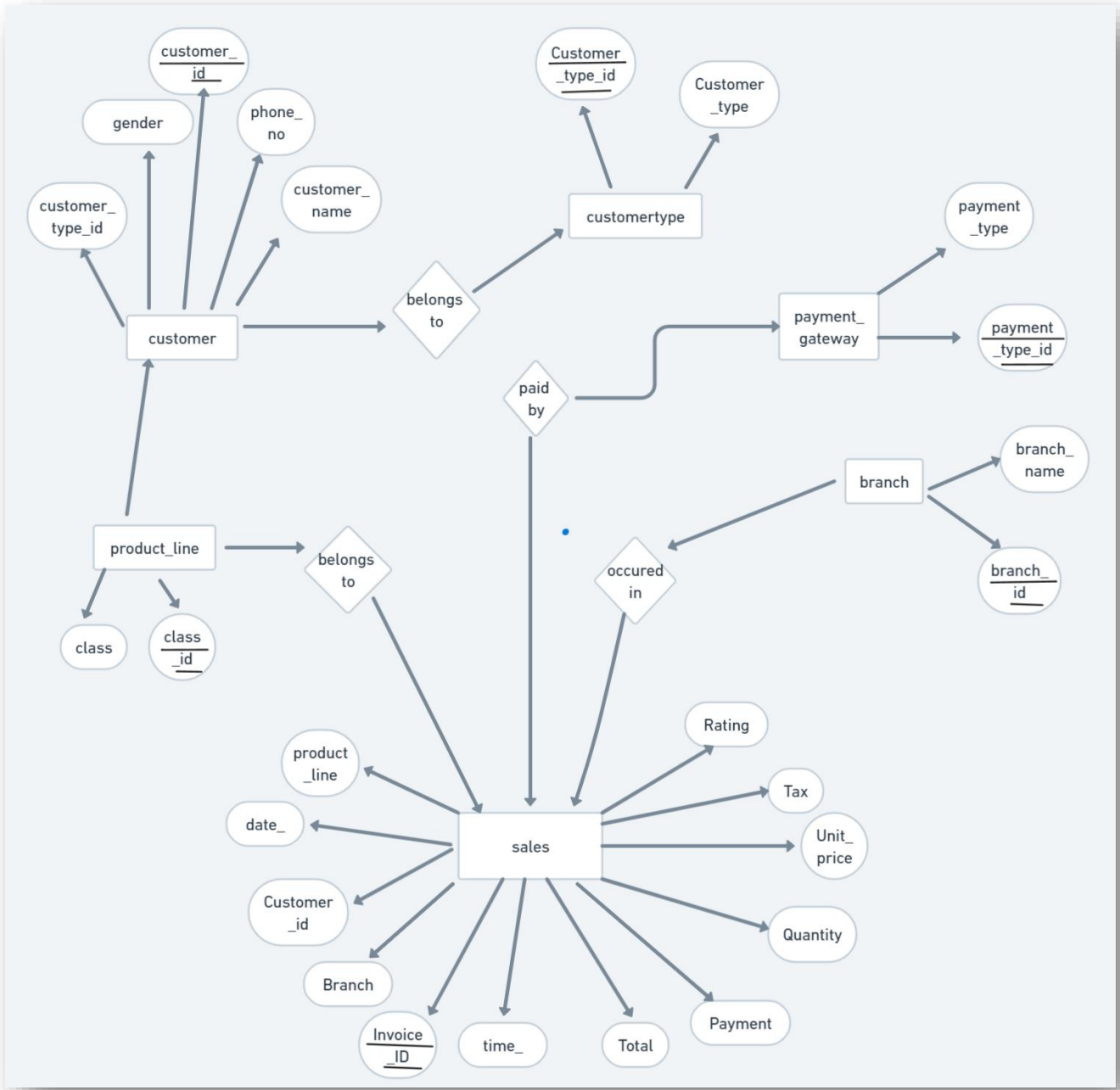
We have created the tables in the database such that all the tables contain primary key.
The primary keys are:

Entity name	**Primary key**
sales	InvoiceID
customer	Customer_id
branch	branch_id
payment_gateway	payment_type_id
product_line	class_id
customertype	Customer_type_id

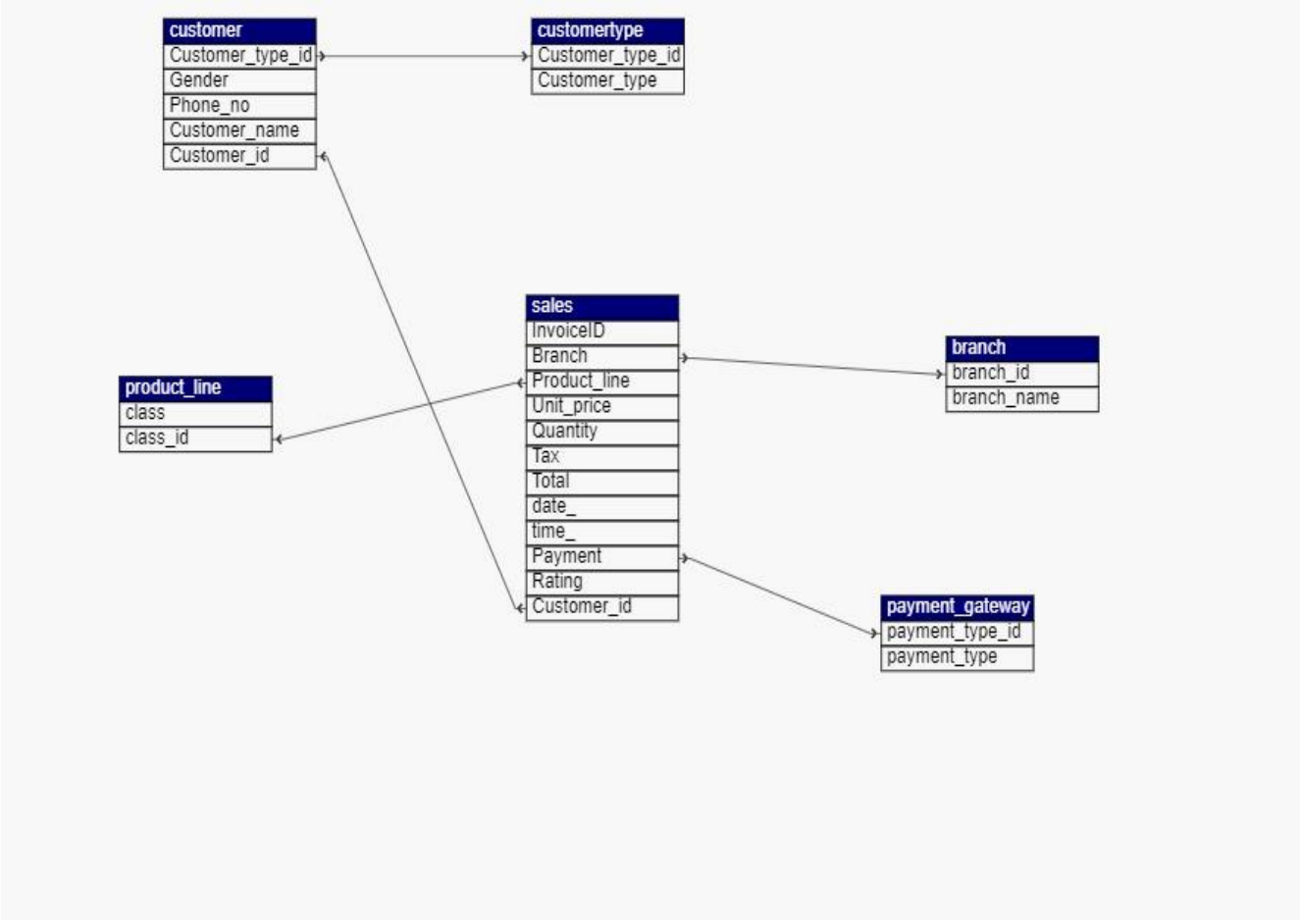
5. REQUIREMENTS

- Server: XAMPP
- DBMS: MariaDB
- Frontend languages: HTML, CSS
- Connecting language (Backend language): PHP
- Browser: Brave
- Designing tool: Whimsical
- Dataset source: Kaggle
- Code editor: VS Code
- Command line interface: Command Prompt

6. E-R DIAGRAM


customer_ id
gender
phone_ no
customer_ name
customer_ type_id
customer
belongs to
Customer _type_id
Customer _type
customertype
payment _type
payment_ gateway
payment _type_id
paid by
branch
branch_ name
branch_ id
occured in
product_line
belongs to
class
class _id
product _line
date_
Customer _id
Branch
Invoice _ID
time_
Total
Payment
Quantity
Unit_ price
Tax
Rating
sales

7. RELATIONAL DATABASE DESIGN



8. DATABASE NORMALISATION

Database normalization is a technique that helps design the schema of the database in an optimal way. The core idea of database normalization is to divide the tables into smaller subtables and store pointers to data rather than replicating it.

First Normal Form (1NF)

- A relation will be 1NF if it contains an atomic value.
- It states that an attribute of a table must hold only single-value.
- First normal form disallows the multi-valued attribute, composite attribute, and their combinations.

Second Normal Form (2NF)

- A relation is in 2NF, it means it is already in 1NF.
- In the second normal form, all non-key attributes are fully functional dependent on the primary key

Third Normal Form(3NF)

- A relation will be in 3NF if it is in 2NF and not contain any transitive partial dependency.
- 3NF is used to reduce the data duplication. It is also used to achieve the data integrity.
- If there is no transitive dependency for non-prime attributes, then the relation must be in third normal form.

A relation is in third normal form if it holds at least one of the following conditions for every non-trivial function dependency $X \rightarrow Y$.

1. X is a super key.
2. Y is a prime attribute, i.e., each element of Y is part of some candidate key.

Boyce Codd normal form (BCNF)

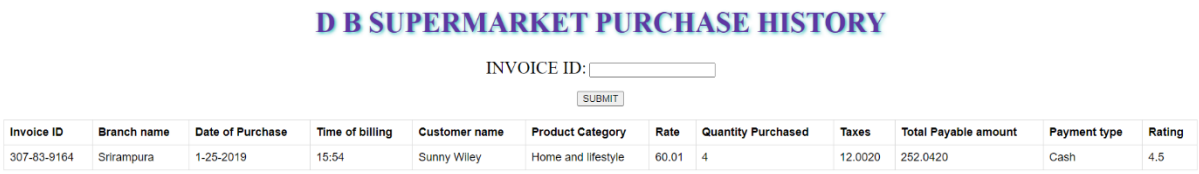
- BCNF is the advanced version of 3NF. It is stricter than 3NF.
- A table is in BCNF if every functional dependency X → Y, X is the super key of the table.
- For BCNF, the table should be in 3NF, and for every FD, LHS is super key.

Tables in the database are designed to use the third normal form(3NF). As we know that to use the third normal form our tables must satisfy the requirement of the first normal form(1NF) and the second normal form (2NF). Most of the tables in the database have been designed to keep optimization in mind. We use normalization to remove updates, delete and insert anomalies.

9. WEB USER INTERFACE

Entering value:

Result:



10.SOURCE CODE

```
<!DOCTYPE html>
<html>

<head>
   <title>Sales History</title>
   <style>
      .in {
         font-size: 25px;
         color: black;
      }

      table {
         font-family: arial, sans-serif;
         border-collapse: collapse;
         width: 100%;

      }

      .ti {
         font-size: 40px;
         font-weight: bold;
         color: #5f37a3;
         text-shadow: 2px 2px 5px #2ebebc;
      }

      td,
```

```
        th {
            border: 1px solid #dddddd;
            text-align: left;
            padding: 8px;

        }

        tr:nth-child(even) {
            background-color: white;
        }
    </style>
</head>

<body>
    <h1 class="ti" class="bi" align="center">D B SUPERMARKET PURCHASE HISTORY</h1>
    <form action="" method="post">
        <div class="group" align="center">
            <label for="InvoiceId" class="in">INVOICE ID:</label>
            <input type="text" class="control" id="InvoiceId" name="InvoiceId">
        </div>
        <div></div>
        <br>
        <div class="group" id="btn" align="center">
            <input type="submit" name="submit" value="SUBMIT">
        </div>
        <br>
```

```
</form>
<div></div>
<div></div>
<table>
  <thead>
    <th>Invoice ID</th>
    <th>Branch name</th>
    <th>Date of Purchase</th>
    <th>Time of billing</th>
    <th>Customer name</th>
    <th>Product Category</th>
    <th>Rate</th>
    <th>Quantity Purchased</th>
    <th>Taxes</th>
    <th>Total Payable amount</th>
    <th>Payment type</th>
    <th>Rating</th>
  </thead>
  <?php
  $con = new mysqli("localhost", "root", "", "supermarket");
  if (isset($_POST['submit'])) {
    $id = $_POST['InvoiceId'];

    $result = $con->query("SELECT InvoiceID, branch_name, class, Unit_price,
Quantity, Tax, Total, date_, time_, payment_type, Rating,
  Customer_name FROM `sales`, `branch`, `product_line`, `payment_gateway`,
`customer` WHERE branch_id = Branch AND
```

```
    class_id = Product_line AND Payment = payment_type_id AND
customer.Customer_id=sales.Customer_id AND InvoiceID = '$id';");


            foreach ($result as $value) {
        ?>
            <tr>
              <td><?php echo $value['InvoiceID']; ?></td>
              <td><?php echo $value['branch_name']; ?></td>
              <td><?php echo $value['date_']; ?></td>
              <td><?php echo $value['time_']; ?></td>
              <td><?php echo $value['Customer_name']; ?></td>
              <td><?php echo $value['class']; ?></td>
              <td><?php echo $value['Unit_price']; ?></td>
              <td><?php echo $value['Quantity']; ?></td>
              <td><?php echo $value['Tax']; ?></td>
              <td><?php echo $value['Total']; ?></td>
              <td><?php echo $value['payment_type']; ?></td>
              <td><?php echo $value['Rating']; ?></td>

            </tr>
    </table>
    <?php
            }
        }
    ?>
    </body>
    </html>
```

QUERIES EXECUTED IN CLI:

```
MariaDB [supermarket]> SELECT COUNT(*)
    -> FROM sales NATURAL JOIN customer
    -> WHERE Gender='F' AND Quantity=10;
+----------+
| COUNT(*) |
+----------+
|       63 |
+----------+
1 row in set (0.002 sec)
```

```
MariaDB [supermarket]> SELECT *
    -> FROM sales NATURAL JOIN customer
    -> WHERE Gender='F';
```

Customer_id	InvoiceID	Branch	Product_line	Unit_price	Quantity	Tax	Total	Date	Time	Payment	Rating	Customer_type_id	Gender	Phone_no	Customer_name
Cu2	101-81-4070	C	A1	62.82	2	6.2820	131.9220	13-03-2019	12:36	1	4.9	m	F	8985243239	Roland Santos
Cu8	109-28-2512	B	F6	97.61	6	29.2830	614.9430	01-07-2019	15:01	1	9.9	m	F	6538658424	Javier Flores
Cu9	109-86-4363	B	D4	60.80	7	21.0280	441.5880	2-14-2019	11:36	3	4.5	m	F	8616713176	Emilia Koch
Cu10	110-05-6330	C	E5	39.43	6	11.8290	248.4090	3-25-2019	20:18	3	9.4	n	F	7036135751	Salvador Sawyer
Cu12	114-35-5271	B	B2	57.91	8	23.1640	486.4440	02-07-2019	15:06	2	8.1	n	F	6436639729	Duncan Bridges
Cu13	115-38-7388	C	F6	10.18	8	4.0720	85.5120	3-30-2019	12:51	3	9.5	m	F	7045531089	Elora Pacheco
Cu14	115-99-4379	B	F6	54.73	7	19.1555	402.2655	3-14-2019	19:02	3	8.5	m	F	9919173890	Erik Munoz
Cu15	118-62-1812	C	C3	78.38	4	15.6760	329.1960	3-24-2019	17:56	2	7.9	m	F	7903032856	Kehlani Malone
Cu17	120-54-2248	B	E5	28.86	5	7.2150	151.5150	1-22-2019	18:08	3	8.0	n	F	6372653455	Milena George
Cu18	122-61-9553	C	B2	51.32	9	23.0940	484.9740	3-14-2019	19:33	2	5.6	n	F	7898950938	Mark Petersen
Cu20	123-35-4896	C	D4	46.66	9	20.9970	440.9370	2-17-2019	19:11	1	5.3	n	F	7367890877	Tyson Byrd
Cu21	124-31-1458	A	B2	79.59	3	11.9385	250.7085	01-08-2019	14:30	2	6.6	m	F	7492171020	Giselle Bean
Cu22	125-45-2293	A	F6	99.10	6	29.7300	624.3300	1-19-2019	13:11	2	4.2	n	F	8942125883	Mccoy Sierra
Cu23	126-54-1082	A	C3	21.54	9	9.6930	203.5530	01-07-2019	11:44	3	8.8	m	F	6162516670	Marceline Vaughn
Cu28	131-15-8856	C	E5	72.52	8	29.0080	609.1680	3-30-2019	19:26	3	4.0	m	F	9953332011	Denver Pham
Cu29	131-70-8179	A	A1	92.09	3	13.8135	290.0835	2-17-2019	16:27	2	4.2	m	F	7267410726	Raelyn Camacho
Cu31	132-32-9879	B	B2	93.96	4	18.7920	394.6320	03-09-2019	18:00	2	9.5	m	F	7211517644	Briar Guerrero
Cu34	134-54-4720	B	B2	42.42	8	16.9680	356.3280	1-30-2019	13:58	1	5.7	n	F	9568248952	Duncan Parks
Cu36	135-13-8269	B	E5	78.88	2	7.8880	165.6480	1-26-2019	16:04	2	9.1	m	F	8753398114	Conner Lawrence
Cu37	135-84-8019	A	F6	77.93	9	35.0685	736.4385	2-27-2019	16:10	1	7.6	n	F	6075993564	Lauren Jennings
Cu38	136-08-6195	A	C3	69.96	8	27.9840	587.6640	2-15-2019	17:01	3	6.4	n	F	9880033685	Corbin Parrish
Cu40	137-74-8729	C	F6	12.19	8	4.8760	102.3960	3-13-2019	12:47	1	6.8	n	F	6491401238	Brody Velez
Cu41	138-17-5109	A	C3	89.21	9	40.1445	843.0345	1-15-2019	15:42	3	6.5	m	F	9235300505	Megan Mahoney
Cu43	139-32-4183	A	D4	97.48	9	43.8660	921.1860	3-14-2019	14:19	1	7.4	m	F	8388848798	Ruth Roman
Cu44	139-52-2867	C	F6	22.51	7	7.8785	165.4485	2-13-2019	10:50	3	4.8	n	F	8376770591	Kian Hawkins
Cu48	145-94-9061	B	E5	88.36	5	22.0900	463.8900	1-25-2019	19:48	2	9.6	n	F	8469906383	Stetson Valencia
Cu51	148-82-2527	C	C3	12.12	10	6.0600	127.2600	03-05-2019	13:44	3	8.4	m	F	7076028566	Juniper Hunt
Cu52	149-14-0304	C	A1	28.50	8	11.4000	239.4000	02-06-2019	14:24	2	6.6	m	F	6745178031	Jesus Atkins
Cu58	151-27-8496	C	B2	56.13	4	11.2260	235.7460	1-19-2019	11:43	1	8.6	n	F	9545994891	Logan Henderson
Cu59	151-33-7434	B	E5	67.77	1	3.3885	71.1585	02-04-2019	20:43	3	6.5	n	F	7831100263	Maria Mccormick
Cu60	152-03-4217	B	C3	11.28	9	5.0760	106.5960	3-17-2019	11:55	3	4.3	n	F	8651189801	Jasiah Garrison
Cu63	153-58-4872	C	E5	74.89	4	14.9780	314.5380	03-01-2019	15:32	1	4.2	m	F	7858215304	Caroline Norton
Cu66	155-45-3814	C	B2	88.55	8	35.4200	743.8200	3-19-2019	15:29	1	4.7	m	F	8274020422	Landon Jimenez
Cu67	156-20-0370	B	B2	25.45	1	1.2725	26.7225	03-10-2019	18:10	3	5.1	n	F	9617457720	Adeline Hicks
Cu68	156-95-3964	A	E5	55.39	4	11.0780	232.6380	3-25-2019	15:19	1	8.0	n	F	6356872945	Maddox Daniels
Cu70	160-22-2687	A	A1	95.95	5	23.9875	503.7375	1-23-2019	14:21	1	8.8	m	F	7629961043	Angel Cole
Cu71	162-48-8011	A	E5	44.59	5	11.1475	234.0975	02-10-2019	15:10	2	8.5	m	F	6979152038	Margaret Herrera
Cu75	169-52-4504	A	B2	15.69	3	2.3535	49.4235	3-14-2019	14:13	3	5.8	n	F	9843700638	Rosa Bryan
Cu76	172-42-8274	B	B2	38.27	2	3.8270	80.3670	03-02-2019	18:18	3	5.8	n	F	6421585257	Jaxtyn Good
Cu77	173-50-1108	B	D4	20.18	4	4.0360	84.7560	2-13-2019	12:14	3	5.0	m	F	7729667346	Nathalia Goodwin
Cu79	173-82-9529	B	F6	37.95	10	18.9750	398.4750	1-26-2019	14:51	2	9.7	n	F	7109838113	Haisley Bradford

Cu924	842-40-8179	B	E5	77.20	10	38.6000	810.6000	02-11-2019	10:38	3	5.6	m	F	7148662296	Collin Rodriguez
Cu925	843-01-4703	B	C3	35.38	9	15.9210	334.3410	01-05-2019	19:50	3	9.6	m	F	7104474971	Evelyn Evans
Cu928	845-94-6841	C	E5	72.88	9	32.7960	688.7160	01-08-2019	19:38	2	4.0	m	F	9306370670	Dakota Ingram
Cu929	846-10-0341	A	F6	42.57	7	14.8995	312.8895	01-06-2019	11:51	2	6.8	n	F	7766833502	Katie Nielsen
Cu930	847-38-7188	B	E5	96.68	3	14.5020	304.5420	1-26-2019	19:56	1	5.4	n	F	6219615958	Tru Zhang
Cu931	848-07-1692	B	A1	57.22	2	5.7220	120.1620	01-12-2019	17:13	1	8.3	n	F	8364706946	Sarai Knapp
Cu933	848-42-2560	A	F6	81.91	2	8.1910	172.0110	03-05-2019	17:43	2	7.8	n	F	7710100842	Hadlee Boyer
Cu935	848-95-6252	C	C3	86.27	1	4.3135	90.5835	2-20-2019	13:24	1	7.0	m	F	9011409853	Andrea Haley
Cu936	849-09-3807	A	F6	88.34	7	30.9190	649.2990	2-18-2019	13:28	2	6.6	m	F	9765204164	Leif Nash
Cu937	850-41-9669	A	B2	75.06	9	33.7770	709.3170	3-19-2019	13:25	1	6.2	n	F	8046865525	Novah Fischer
Cu939	851-98-3555	B	A1	82.88	5	20.7200	435.1200	3-24-2019	14:08	3	6.6	n	F	9844838338	Millie Mccarthy
Cu940	852-62-7105	B	F6	83.25	10	41.6250	874.1250	01-12-2019	11:25	3	4.4	n	F	7140303534	Devin Terrell
Cu943	856-22-8149	A	C3	25.29	1	1.2645	26.5545	3-23-2019	10:13	1	6.1	n	F	9801022122	Elle Leonard
Cu945	857-16-3520	A	F6	71.46	7	25.0110	525.2310	3-28-2019	16:06	1	4.5	m	F	6111322019	Skylar Fuentes
Cu947	859-71-0933	C	D4	15.49	2	1.5490	32.5290	1-16-2019	15:10	2	6.3	m	F	7449164958	Zariyah Bullock
Cu949	860-73-6466	A	D4	39.47	2	3.9470	82.8870	03-02-2019	16:16	3	5.0	m	F	6365036611	Sofia Miles
Cu950	860-79-0874	C	F6	99.30	10	49.6500	999.9999	2-15-2019	14:53	3	6.6	m	F	8545317330	Jared Andrade
Cu952	862-17-9201	B	E5	84.05	6	25.2150	529.5150	1-29-2019	10:48	3	7.7	n	F	6864850527	Jaime Harmon
Cu953	862-29-5914	C	D4	22.38	1	1.1190	23.4990	1-30-2019	17:08	3	8.6	n	F	8599673230	Maren Campos
Cu954	862-59-8517	C	E5	90.24	6	27.0720	568.5120	1-27-2019	11:17	2	6.2	n	F	8991280656	Gideon Marks
Cu955	864-24-7918	A	D4	24.49	10	12.2450	257.1450	2-22-2019	15:15	2	8.1	m	F	8557146540	Monica Lynch
Cu958	866-05-7563	B	B2	81.40	3	12.2100	256.4100	02-09-2019	19:43	2	4.8	m	F	6381434158	Ariel Vance
Cu959	866-70-2814	B	B2	52.79	10	26.3950	554.2950	2-25-2019	11:58	1	10.0	n	F	6051425681	Maxine Webb
Cu961	867-47-1948	C	C3	15.80	10	7.9000	165.9000	01-09-2019	12:07	2	7.8	n	F	9444892227	Vienna Bond
Cu963	868-52-7573	B	E5	99.69	5	24.9225	523.3725	1-14-2019	12:09	2	9.9	n	F	7401096875	Nyla Cameron
Cu966	870-54-3162	A	D4	32.25	5	8.0625	169.3125	1-27-2019	13:26	2	9.0	n	F	7076775334	Abdullah Bentley
Cu967	870-72-4431	C	A1	99.19	6	29.7570	624.8970	1-21-2019	14:42	3	5.5	n	F	6441173342	Jaylin Brooks
Cu968	870-76-1733	A	E5	14.23	5	3.5575	74.7075	02-01-2019	10:08	3	4.4	m	F	6165576466	Jordan Michael
Cu969	871-39-9221	C	B2	12.45	6	3.7350	78.4350	02-09-2019	13:11	2	4.1	n	F	6044995952	Aubriella Bentley
Cu972	873-51-0671	A	D4	21.98	7	7.6930	161.5530	01-10-2019	16:42	1	5.1	m	F	8583509728	Zachariah Hutchinson
Cu973	873-95-4984	B	A1	76.90	7	26.9150	565.2150	2-15-2019	20:21	2	7.7	m	F	7421573557	Jamie Stanton
Cu977	878-30-2331	C	D4	54.55	10	27.2750	572.7750	03-02-2019	11:22	3	7.1	m	F	6392626072	Anna Rios
Cu978	880-35-0356	A	D4	75.20	3	11.2800	236.8800	02-05-2019	11:51	1	4.8	m	F	6786071526	Israel Figueroa
Cu980	881-41-7302	C	F6	64.99	1	3.2495	68.2395	1-26-2019	10:06	3	4.5	n	F	8147731793	Brett Buckley
Cu982	883-17-4236	C	D4	14.39	2	1.4390	30.2190	03-02-2019	19:44	3	7.2	n	F	6267196374	Roberto Webb
Cu984	884-80-6021	A	B2	73.47	10	36.7350	771.4350	3-23-2019	13:14	1	9.5	m	F	7730174340	Anthony Kaur
Cu985	885-17-6250	A	A1	79.74	1	3.9870	83.7270	03-06-2019	10:36	1	7.3	n	F	9024743309	Holland McDowell
Cu987	886-18-2897	A	E5	56.56	5	14.1400	296.9400	3-22-2019	19:06	3	4.5	n	F	6248203480	Mia Ray
Cu988	886-54-6089	A	C3	11.43	6	3.4290	72.0090	1-15-2019	17:24	2	7.7	n	F	9571456509	Arlo Glover
Cu990	887-42-0517	C	D4	83.14	7	29.0990	611.0790	01-10-2019	10:31	3	6.6	n	F	9069551199	Zahir Barr
Cu992	889-04-9723	B	E5	89.14	4	17.8280	374.3880	01-07-2019	12:20	3	7.8	m	F	6484101083	Caspian Berger
Cu993	891-01-7034	B	B2	74.71	6	22.4130	470.6730	01-01-2019	19:07	2	6.7	n	F	9238324134	Laylah Gould
Cu994	891-58-8335	B	D4	29.61	7	10.3635	217.6335	03-11-2019	15:53	2	6.5	m	F	6700593937	Blaine Hart
Cu995	892-05-6689	A	C3	28.32	5	7.0800	148.6800	03-11-2019	13:28	1	6.2	n	F	9751580001	Gemma Olsen
Cu996	894-41-5205	C	E5	43.18	8	17.2720	362.7120	1-19-2019	19:39	3	8.3	n	F	6893287930	Skyler Wall
Cu997	895-03-6665	B	F6	36.51	9	16.4295	345.0195	2-16-2019	10:52	2	4.2	n	F	7398879554	Jayda Chandler

501 rows in set (0.008 sec)

```
MariaDB [supermarket]> SELECT class, Date
    -> FROM sales, product_line
    -> WHERE Product_line=class_id AND Date LIKE '%3%';
+------------------------+------------+
| class                  | Date       |
+------------------------+------------+
| Health and beauty      | 13-03-2019 |
| Health and beauty      | 03-05-2019 |
| Health and beauty      | 03-09-2019 |
| Health and beauty      | 1-23-2019  |
| Health and beauty      | 03-12-2019 |
| Health and beauty      | 03-09-2019 |
| Health and beauty      | 1-23-2019  |
| Health and beauty      | 3-29-2019  |
| Health and beauty      | 2-23-2019  |
| Health and beauty      | 03-01-2019 |
| Health and beauty      | 03-04-2019 |
| Health and beauty      | 3-27-2019  |
| Health and beauty      | 01-03-2019 |
| Health and beauty      | 03-04-2019 |
| Health and beauty      | 3-29-2019  |
| Health and beauty      | 03-03-2019 |
```

```
Command Prompt - mysql -u root -p
| Fashion accessories    | 03-09-2019 |
| Fashion accessories    | 3-13-2019  |
| Fashion accessories    | 3-17-2019  |
| Fashion accessories    | 02-03-2019 |
| Fashion accessories    | 3-13-2019  |
| Fashion accessories    | 3-27-2019  |
| Fashion accessories    | 3-24-2019  |
| Fashion accessories    | 1-31-2019  |
| Fashion accessories    | 03-11-2019 |
| Fashion accessories    | 03-05-2019 |
| Fashion accessories    | 03-04-2019 |
| Fashion accessories    | 3-26-2019  |
| Fashion accessories    | 2-13-2019  |
| Fashion accessories    | 3-23-2019  |
| Fashion accessories    | 3-26-2019  |
| Fashion accessories    | 03-07-2019 |
| Fashion accessories    | 03-05-2019 |
| Fashion accessories    | 3-28-2019  |
| Fashion accessories    | 03-06-2019 |
| Fashion accessories    | 3-19-2019  |
+------------------------+------------+
434 rows in set (0.003 sec)
```

```
MariaDB [supermarket]> select s.Total,s.customer_id,c.customer_name from sales s,customer c where c.customer_id=s.customer_id and s.Total in(select max(s.Total) from sales s);
+----------+-------------+---------------------+
| Total    | customer_id | customer_name       |
+----------+-------------+---------------------+
| 999.9999 | Cu157       | Jennifer Cherry     |
| 999.9999 | Cu206       | Phoenix Duran       |
| 999.9999 | Cu224       | Jakari Norman       |
| 999.9999 | Cu251       | Loretta Patel       |
| 999.9999 | Cu550       | Avi Rocha           |
| 999.9999 | Cu722       | Santana Cooper      |
| 999.9999 | Cu801       | Rayna Ellison       |
| 999.9999 | Cu817       | Christina Williamson |
| 999.9999 | Cu950       | Jared Andrade       |
+----------+-------------+---------------------+
9 rows in set (0.011 sec)
```

```
MariaDB [supermarket]> SELECT branch_name, Rating
    -> FROM sales, branch
    -> WHERE branch_id = Branch AND Rating>=7.0;
+-------------+--------+
| branch_name | Rating |
+-------------+--------+
| Srirampura  |    7.0 |
| Srirampura  |    8.5 |
| Srirampura  |    8.4 |
| Srirampura  |    8.8 |
| Srirampura  |    9.8 |
| Srirampura  |    7.0 |
| Srirampura  |    9.4 |
| Srirampura  |    7.8 |
| Srirampura  |    7.6 |
| Srirampura  |    7.4 |
| Srirampura  |    9.5 |
| Srirampura  |    8.0 |
| Srirampura  |    8.8 |
| Srirampura  |    8.5 |
| Srirampura  |    9.9 |
| Srirampura  |    9.6 |
```

```
| Yeshwantpur  |    7.4 |
| Yeshwantpur  |    7.7 |
| Yeshwantpur  |    7.6 |
| Yeshwantpur  |    8.4 |
| Yeshwantpur  |    8.3 |
| Yeshwantpur  |    9.4 |
| Yeshwantpur  |    9.3 |
| Yeshwantpur  |    9.8 |
| Yeshwantpur  |    7.0 |
| Yeshwantpur  |    9.1 |
| Yeshwantpur  |    8.5 |
| Yeshwantpur  |    8.7 |
| Yeshwantpur  |    7.9 |
| Yeshwantpur  |    7.0 |
| Yeshwantpur  |    9.2 |
| Yeshwantpur  |    8.6 |
| Yeshwantpur  |    7.8 |
| Yeshwantpur  |    7.1 |
| Yeshwantpur  |    7.2 |
| Yeshwantpur  |    8.3 |
+--------------+--------+
501 rows in set (0.005 sec)
```

11. CONCLUSION

This project explains the details of the step-wise design of the database, user interface, and overall design of the new system. As has been shown in the previous sections we represented our database schema using E R Diagram. Then came up with a Relational database design, checked and for database normalization. We cross-checked the database design by executing some of the queries in the command line. Later on, we connected our database to the web user interface we made using HTML, and CSS using PHP. We designed the user interface in such a way that the user may be a salesperson or customer can enter the Invoice ID and the DBMS according to PHP will retrieve the corresponding data from the database and display it. This will be useful when we have to check some details about the purchase.

Compared with the old manual work, the system not only reduces the workload but also greatly reduced the occurrence of human error. The system also has the advantage of having a simple operation, convenient query and data storage security, etc. It can gradually improve staff quality and strengthen the management level of sales through the use of the sales management system. The system maintenance is convenient, reliable and has higher security and meet the requirements of practicality.