Project name

Grocery Park

Database System Lab

CSE 210

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Table of Contents

Chapter – 1

1.1 Introduction

Super Shop is the active control program which allow the sales and purchase related activities.

Super Shop management software helps create invoices, product category, purchase orders, receiving lists, payment receipts and can print bar code labels. A super shop management software system configured to our warehouse, retail or product line will help to create revenue for company. The super shop management will control operating costs and provide better understanding.

1.2 Objectives

The main objective of the super shop management system is to management details of stock, payment, sales, discounts and products. It manages all the information about stock, inventory and products. The products are totally build at the administrative end thus only the administrator is grunted access.

1.3 Goals

The main aim of this type of software is to automate the existing manual system by the help of computerized equipment and software.

Chapter – 2

2.1 Required Components

To complete this project we have used several tools like

1. **XAMPP :**
   An abbreviation for cross-platform, Apache, MySQL, PHP and Perl, and its allow you to build Word Press site offline on a local web server on your computer.

2. **MySQL :**
   MySQL is an open-source relational database management system.

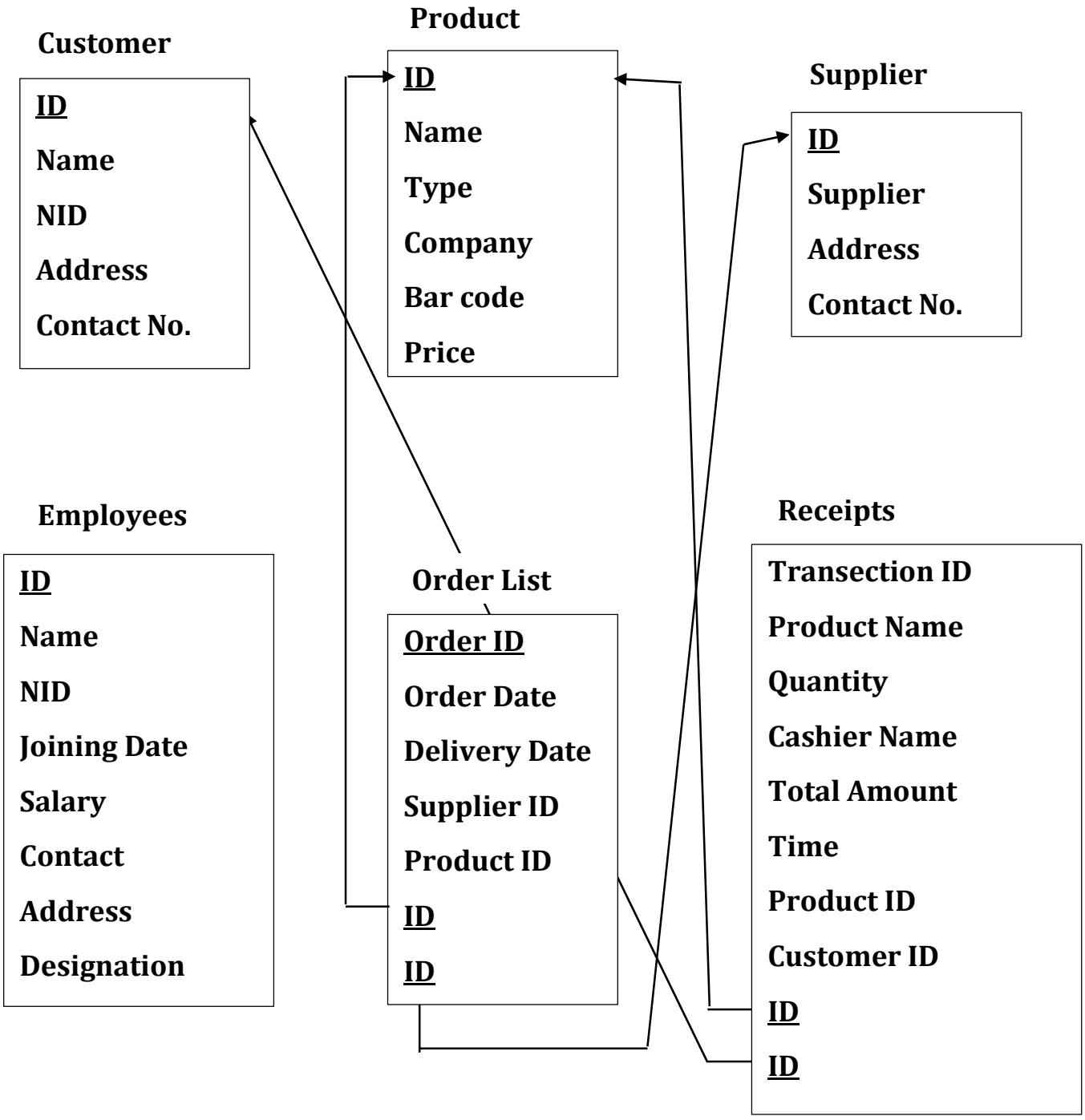
3. Operating System: **Windows 10**

Chapter – 3

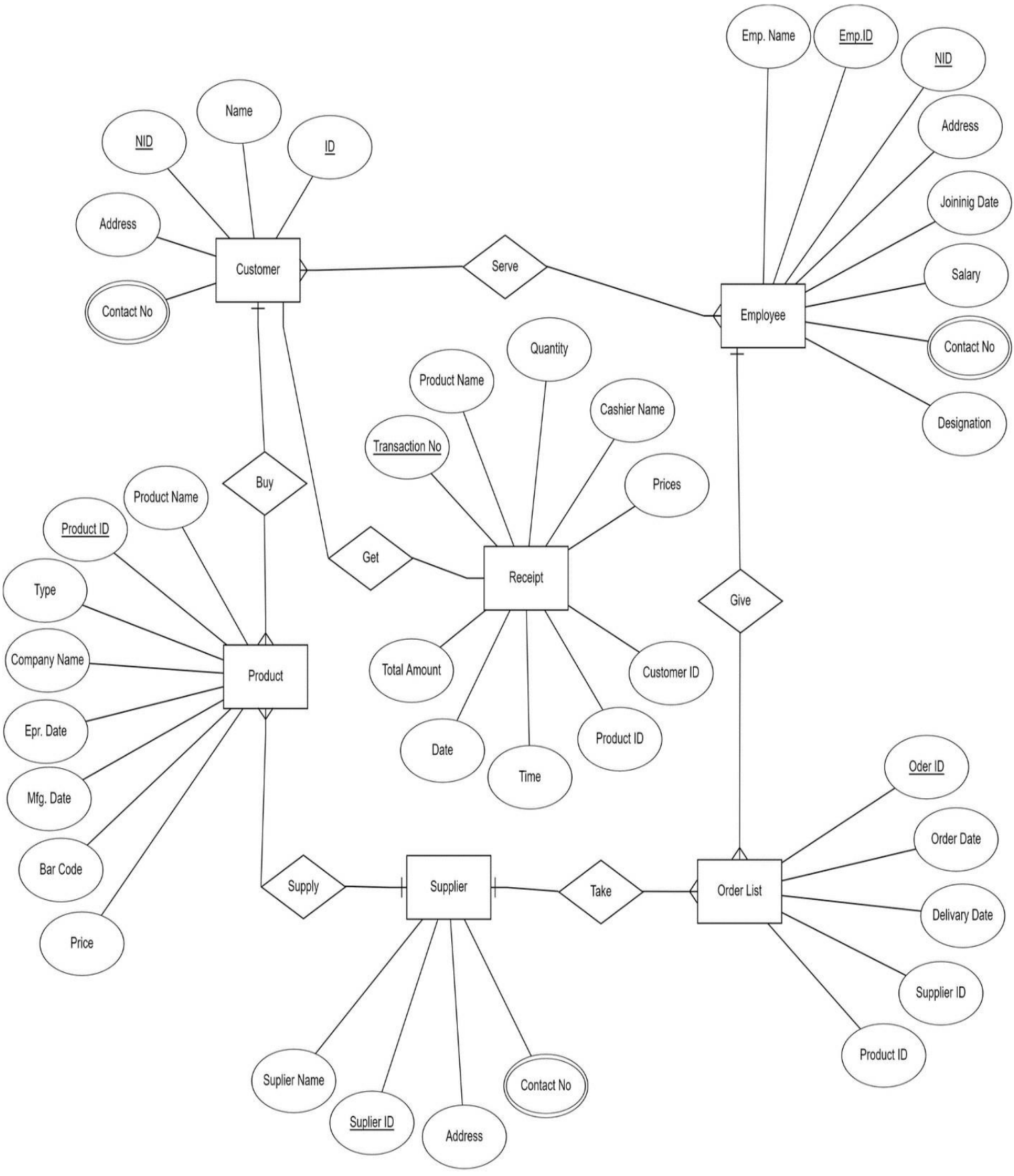
3.1 Entity Relation:

An Entity Relationship (ER) diagram is a form of flowchart that shows how "entities" such as people, objects, or concepts interact with one another within a system. In the Database area, ER diagrams are most commonly used to develop or debug relational databases. It is visual representation of various entities within a system and how they interact with one another. The relational model can be represented as a table with columns and rows. Each row is referred to as a tuple. Each column table has a name or attribute. This type of model is used to organize data and identify links between key data elements. They make it simple to filter and find information.

3.2 The Relational Schema



3.3 ER Diagram



3.4 Key Constraint

Entities	Attribute
Customers	**Name, ID, NID, Address, Contact no**
Employees	**Name, ID, NID, Joining Date, Salary, Contact no, Address, designation**
Products	**Name, ID, type, company Name, Exp. Date, Mfg. date, Bar code, price**
Receipt	**Transaction no, Products name, Quantity, Cashier Name, Total Amount ,date, product id, customer id**
Suppliers	**Supplier name, ID, Address, Contact no**
Order List	**Order ID, Order Date, Delivery Date, Supplier ID, Product ID**

To implement this project we have use some key constraints such as primary key, foreign key, unique key, not null, current date and time format. Now we will go through all of them.

In our project we have **6 tables** under a database.

In our **customers** table we have. Customer ID as primary, Contract number and NID number as unique key.

In our **Employees** table we have employee name ID as primary key, NID, contractnumber as unique key. Joining date as date format.

In our **products** table we have product id as primary key.
Manufacture and Expiredate as date format. Bar code as unique format.

In our **receipts** table we have transection no as primary key, transection date in date format, product id and customer id as foreign key respectively from product and customer table.

In our **suppliers** table we have supplier id as primary key and contract number asunique key.

In our **order list** table we have order id as primary key supplier and product id asforeign key.

Key Constraints definitions:

Primary key: The PRIMARY KEY constraint uniquely identifies each record in a table. Primary keys must contain UNIQUE values, and cannot contain NULL values. A table can have only ONE primary key; and in the table, this primary key can consist of single or multiple columns (fields).

Foreign key: A foreign key is a column in a relational database table that provides a relationship between two tables. It acts as a cross-reference between tables because it references the primary key of another table. We can use another table's primary key in a table through foreign key.

Unique key: A unique key is a set of one or more than one field of a table that uniquely identifies a record in a database table. We can say that it is a little like a primary key, but it can accept only one null value, and it cannot have duplicate values.

Chapter – 4

Performance Evaluation

4.1 SQL Command

```
--
-- Database: `grocery_park`
--
-- --------------------------------------------------------
--
-- Table structure for table `customers`
--
CREATE TABLE `customers` (
```

```
  `name` varchar(255) NOT NULL,
  `id` int(11) NOT NULL,
  `nid` int(11) NOT NULL,
  `address` varchar(255) NOT NULL,
  `contact_no` varchar(255) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
--
-- Dumping data for table `customers`
--
INSERT INTO `customers` (`name`, `id`, `nid`, `address`, `contact_no`)
VALUES
('Sojib', 101, 123456, 'Nator', '01728382133'),
('Roni', 102, 123654, 'Mohammadpur Housing', '01628381233'),
('Joni', 103, 213456, 'Lalmatia-B-3', '01526214491'),
('Mutalab', 104, 654321, 'Sankar', '01615292399'),
('Shanto', 105, 567890, 'Kaderabadh Housing', '01674863291'),
('Samia', 106, 456789, 'Dhanmondi-15', '01555466981'),
('Ferdouse', 107, 234567, 'Kalabagan', '01678945632'),
('Raju', 108, 987654, 'Samoli', '01544496325'),
('Rokeya', 109, 789654, 'Lalmatia-B-4', '01741285369'),
('Shakib', 110, 987234, 'Satmasjid Road', '01612345698'),
('Sweety', 111, 596471, 'Jigatola', '01785225852'),
('Abbas', 112, 918273, 'Mohammadpur Housing', '01614774114'),
('Kuddus', 113, 963123, 'Dhanmondi-27', '01771471444'),
('Monisa', 114, 852258, 'Dhanmondi-15', '01745645665'),
('Tasnim', 115, 789753, 'Jigatola', '01558528552'),
('Joy', 116, 871055, 'Tatibajar', '01310320385'),
```

```
('Shourav', 117, 159826, 'Malibag', '01612035566'),
('Ratul', 118, 258826, 'Mirpur 1', '01912037771'),
('Nahid', 119, 586160, 'Kajipara', '01385236974'),
('Mursalin', 120, 741852, 'Matuail', '01588996601');
-- --------------------------------------------------------
--
-- Table structure for table `employees`
--
CREATE TABLE `employees` (
  `name` varchar(255) NOT NULL,
  `id` int(11) NOT NULL,
  `nid` int(11) NOT NULL,
  `joining_date` date DEFAULT NULL,
  `salary` int(11) NOT NULL,
  `contact_no` varchar(11) NOT NULL,
  `address` varchar(255) NOT NULL,
  `designation` varchar(255) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
--
-- Dumping data for table `employees`
--
INSERT INTO `employees` (`name`, `id`, `nid`, `joining_date`, `salary`,
`contact_no`, `address`, `designation`) VALUES
('Fakur', 501, 159623, '2018-05-05', 7500, '01776212449', 'Barishal', 'Sales
Executive'),
('Rosy', 502, 159632, '2018-07-02', 7500, '01776214944', 'Noakhali', 'Sales
Executive'),
```

('Riya', 504, 159624, '2018-05-05', 7500, '01776212400', 'Dhaka', 'Sales Executive'),

('Rimi', 505, 159635, '2018-05-02', 7500, '01776214955', 'Dhaka', 'Sales Executive'),

('Toma', 506, 156565, '2017-09-04', 9500, '01765121944', 'Narayanganj', 'Accountant'),

('Touhidul', 507, 164556, '2017-05-03', 10500, '01628382133', 'Bagerhat', 'Manager'),

('Shattar', 508, 145003, '2022-01-01', 4500, '01700022233', 'Bola', 'Cleaner'),

('Shohan', 509, 201035, '2022-07-01', 7000, '01985235954', 'Noya Polton', 'Sales Executive'),

('Shihab', 510, 807098, '2022-08-02', 6500, '01985612358', 'Shahjahanpur', 'Assistant Manager'),

('Puspa', 511, 159352, '2022-06-01', 7500, '01766541800', 'Taltola', 'Brand Manager');

-- --

--

-- Table structure for table `order_list`

--

CREATE TABLE `order_list` (

`order_id` int(11) NOT NULL,

`order_date` date DEFAULT NULL,

`delivery_date` date DEFAULT NULL,

`suplier_id` int(11) NOT NULL,

`product_id` int(11) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

```
-- Dumping data for table `order_list`
--
INSERT INTO `order_list` (`order_id`, `order_date`, `delivery_date`,
`suplier_id`, `product_id`) VALUES
(10001, '2022-02-01', '2022-02-05', 904, 105),
(10002, '2022-03-05', '2022-03-10', 901, 100),
(10003, '2022-03-05', '2022-03-10', 901, 101),
(10004, '2022-03-05', '2022-03-10', 901, 102),
(10005, '2022-04-05', '2022-04-10', 903, 104),
(10006, '2022-03-05', '2022-03-12', 905, 107),
(10007, '2022-05-15', '2022-05-17', 902, 113),
(10008, '2022-06-05', '2022-06-07', 902, 112),
(10009, '2022-07-10', '2022-07-11', 906, 105),
(10010, '2022-07-15', '2022-07-17', 904, 106),
(10011, '2022-08-21', '2022-08-22', 905, 114);
--
-------------------------------------------------------
--
-- Table structure for table `products`
--
CREATE TABLE `products` (
  `name` varchar(255) NOT NULL,
  `id` int(11) NOT NULL,
  `type` varchar(255) NOT NULL,
  `companyName` varchar(255) NOT NULL,
  `bar_code` int(11) NOT NULL,
  `price` varchar(255) NOT NULL
```

```
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `products`

--

INSERT INTO `products` (`name`, `id`, `type`, `companyName`, `bar_code`, `price`) VALUES

('7up(600ml)', 100, 'Beverage', 'PepsiCo', 1234, '35.00'),

('7up(1.25ltr)', 101, 'Beverage', 'PepsiCo', 1235, '60.00'),

('7up(2.25ltr)', 102, 'Beverage', 'PepsiCo', 1236, '110.00'),

('Mountain Dew (600ml)', 103, 'Beverage', 'PepsiCo', 1237, '35.00'),

('Speed (250ml)', 104, 'Beverage', 'Akij Food and Beverage Ltd (AFBL)', 1238, '35.00'),

('Rupchanda(2 ltr)', 105, 'Soyabean Oil', 'Indian Adani Wilmar Ltd', 4321, '286.00'),

('Fresh(5 ltr)', 106, 'Soyabean Oil', 'Edible Oil', 4322, '728.00'),

('Chashi Aromatic Chinigura Rice(1 kg)', 107, 'Rice', 'Square', 5431, '130.00'),

('Chashi Aromatic Chinigura Rice(5 kg)', 108, 'Rice', 'Square', 5432, '630.00'),

('Aarong Dairy(1 ltr)', 109, 'Dairy Milk', 'Arong', 6541, '75.00'),

('Aarong Dairy(500 ml)', 110, 'Dairy Milk', 'Arong', 6542, '40.00'),

('Gold Coffee', 111, 'Coffee', 'ACI Ltd', 2581, '410'),

('Mustard Oil (250 ml) ', 112, 'Oil', 'ACI Ltd', 2418, '75'),

('ACI Pure Najirshail Rice (10 kg)', 113, 'Rice', 'ACI Ltd', 4758, '875'),

('CORONA BEER 330ml', 114, 'Drinks', 'AB InBev', 2356, '550'),

('BREAD', 115, 'Braed', 'Bosundhara', 1406, '50');

--

-------------------------------------------------------

--
```

```
-- Table structure for table `receipt`
--
CREATE TABLE `receipt` (
  `transaction_no` int(11) NOT NULL,
  `product_name` varchar(255) NOT NULL,
  `quantity` double(10,2) NOT NULL,
  `cashier_name` varchar(20) NOT NULL,
  `total_amount` varchar(255) NOT NULL,
  `time_` datetime NOT NULL DEFAULT current_timestamp(),
  `product_id` int(11) NOT NULL,
  `customer_id` int(11) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
--
-- Dumping data for table `receipt`
--
INSERT INTO `receipt` (`transaction_no`, `product_name`, `quantity`, `cashier_name`, `total_amount`, `time_`, `product_id`, `customer_id`) VALUES
(1, '7up', 1.00, 'Toma', '35.00', '2022-04-19 00:05:40', 100, 107),
(2, 'Rupchanda', 1.00, 'Toma', '286.00', '2022-04-19 00:47:02', 105, 107),
(3, 'Chashi Aromatic Chinigura Rice', 1.00, 'Toma', '130.00', '2022-04-19 00:47:02', 107, 107),
(4, 'Chashi Aromatic Chinigura Rice', 1.00, 'Toma', '130.00', '2022-04-19 00:49:07', 107, 107),
(5, 'Chashi Aromatic Chinigura Rice', 1.00, 'Toma', '630.00', '2022-04-19 00:50:05', 108, 115),
(6, 'Speed', 1.00, 'Toma', '25.00', '2022-04-19 00:51:30', 104, 111),
(7, 'Speed', 4.00, 'Toma', '100.00', '2022-04-19 00:52:45', 104, 109),
(8, 'Fresh(5ltr)', 2.00, 'Toma', '1450', '2022-04-19 20:29:15', 106, 111),
```

```
(9, 'Aarong Dairy(1ltr)', 2.00, 'Toma', '150', '2022-04-19 20:29:15', 109, 115),
(10, 'Gold Coffee', 1.00, 'Toma', '410', '2022-09-02 19:50:59', 111, 120),
(11, 'CORONA BEER ', 6.00, 'Toma', '3300', '2022-09-02 19:50:59', 114, 116),
(12, 'ACI Pure Najirshail Rice (10 kg)', 1.00, 'Toma', '875', '2022-09-02 19:50:59', 113, 117);

-- --------------------------------------------------------

--

-- Table structure for table `supplier`

--

CREATE TABLE `supplier` (
  `supplier_name` varchar(255) NOT NULL,
  `id` int(11) NOT NULL,
  `address` varchar(255) NOT NULL,
  `contact_no` varchar(255) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `supplier`

--

INSERT INTO `supplier` (`supplier_name`, `id`, `address`, `contact_no`) VALUES
('RR Enterprise', 901, 'Gazipur', '01345678947'),
('Arong', 902, 'Dhaka', '01396336963'),
('SKD Traders', 903, 'Khulna', '01772621944'),
('Meghna LTD', 904, 'Narayangang', '0137415983'),
('RPG Trade', 905, 'Mymenshing', '01385245675'),
('Shaheen Food Suppliers', 906, 'Dhaka', '01782563321'),
```

```
('Organic Manure Enterprise', 907, 'Chottogram', '01965214589'),
('Goods From BD', 908, 'Gazipur', '01832144567');
--
-- Indexes for dumped tables
--


--
-- Indexes for table `customers`
--
ALTER TABLE `customers`
  ADD PRIMARY KEY (`id`),
  ADD UNIQUE KEY `nid` (`nid`),
  ADD UNIQUE KEY `contact_no` (`contact_no`);


--
-- Indexes for table `employees`
--
ALTER TABLE `employees`
  ADD PRIMARY KEY (`id`),
  ADD UNIQUE KEY `nid` (`nid`),
  ADD UNIQUE KEY `contact_no` (`contact_no`);


--
-- Indexes for table `order_list`
--
ALTER TABLE `order_list`
  ADD PRIMARY KEY (`order_id`),
```

```
  ADD KEY `suplier_id` (`suplier_id`),
  ADD KEY `product_id` (`product_id`);

--
-- Indexes for table `products`
--
ALTER TABLE `products`
  ADD PRIMARY KEY (`id`),
  ADD UNIQUE KEY `bar_code` (`bar_code`);

--
-- Indexes for table `receipt`
--
ALTER TABLE `receipt`
  ADD PRIMARY KEY (`transaction_no`),
  ADD KEY `product_id` (`product_id`),
  ADD KEY `customer_id` (`customer_id`);

--
-- Indexes for table `supplier`
--
ALTER TABLE `supplier`
  ADD PRIMARY KEY (`id`);

--
-- AUTO_INCREMENT for dumped tables
--
```

```
--
-- AUTO_INCREMENT for table `employees`
--
ALTER TABLE `employees`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=564232;


--
-- AUTO_INCREMENT for table `order_list`
--
ALTER TABLE `order_list`
  MODIFY `order_id` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=10012;


--
-- AUTO_INCREMENT for table `products`
--
ALTER TABLE `products`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=116;


--
-- AUTO_INCREMENT for table `receipt`
--
ALTER TABLE `receipt`
  MODIFY `transaction_no` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=13;
```

```
--
-- AUTO_INCREMENT for table `supplier`
--
ALTER TABLE `supplier`
  MODIFY `id` int(11) NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=909;


--
-- Constraints for dumped tables
--


--
-- Constraints for table `order_list`
--
ALTER TABLE `order_list`
  ADD CONSTRAINT `order_list_ibfk_1` FOREIGN KEY (`suplier_id`)
REFERENCES `supplier` (`id`),
  ADD CONSTRAINT `order_list_ibfk_2` FOREIGN KEY (`product_id`)
REFERENCES `products` (`id`);
--
-- Constraints for table `receipt`
--
ALTER TABLE `receipt`
  ADD CONSTRAINT `receipt_ibfk_1` FOREIGN KEY (`product_id`)
REFERENCES `products` (`id`),
  ADD CONSTRAINT `receipt_ibfk_2` FOREIGN KEY (`customer_id`)
REFERENCES `customers` (`id`);
COMMIT;
```

Results

4.2 Tables and Structure

Grocery Park

Table	Action	Rows	Type	Collation	Size	Overhead
customers	Browse Structure Search Insert Empty Drop	20	InnoDB	utf8mb4_general_ci	48.0 KiB	-
employees	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_general_ci	48.0 KiB	-
order_list	Browse Structure Search Insert Empty Drop	11	InnoDB	utf8mb4_general_ci	48.0 KiB	-
products	Browse Structure Search Insert Empty Drop	16	InnoDB	utf8mb4_general_ci	48.0 KiB	-
receipt	Browse Structure Search Insert Empty Drop	12	InnoDB	utf8mb4_general_ci	48.0 KiB	-
supplier	Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_general_ci	16.0 KiB	-
6 tables	Sum	77	InnoDB	utf8mb4_general_ci	256.0 KiB	0 B

Customers Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	name	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
2	id	int(11)			No	*None*			Change Drop More
3	nid	int(11)			No	*None*			Change Drop More
4	address	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
5	contact_no	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More

	name	id	nid	address	contact_no
Edit Copy Delete	Sojib	101	123456	Nator	01728382133
Edit Copy Delete	Roni	102	123654	Mohammadpur Housing	01628381233
Edit Copy Delete	Joni	103	213456	Lalmatia-B-3	01526214491
Edit Copy Delete	Mutalab	104	654321	Sankar	01615292399
Edit Copy Delete	Shanto	105	567890	Kaderabadh Housing	01674863291
Edit Copy Delete	Samia	106	456789	Dhanmondi-15	01555466981
Edit Copy Delete	Ferdouse	107	234567	Kalabagan	01678945632
Edit Copy Delete	Raju	108	987654	Samoli	01544496325
Edit Copy Delete	Rokeya	109	789654	Lalmatia-B-4	01741285369
Edit Copy Delete	Shakib	110	987234	Satmasjid Road	01612345698
Edit Copy Delete	Sweety	111	596471	Jigatola	01785225852
Edit Copy Delete	Abbas	112	918273	Mohammadpur Housing	01614774114
Edit Copy Delete	Kuddus	113	963123	Dhanmondi-27	01771471444
Edit Copy Delete	Monisa	114	852258	Dhanmondi-15	01745645665
Edit Copy Delete	Tasnim	115	789753	Jigatola	01558528552
Edit Copy Delete	Joy	116	871055	Tatibajar	01310320385
Edit Copy Delete	Shourav	117	159826	Malibag	01612035566
Edit Copy Delete	Ratul	118	258826	Mirpur 1	01912037771
Edit Copy Delete	Nahid	119	586160	Kajipara	01385236974
Edit Copy Delete	Mursalin	120	741852	Matuail	01588996601

Check all *With selected:* Edit Copy Delete Export

Employees Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	**name**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
2	**id**	int(11)			No	*None*		AUTO_INCREMENT	Change Drop More
3	**nid**	int(11)			No	*None*			Change Drop More
4	**joining_date**	date			Yes	*NULL*			Change Drop More
5	**salary**	int(11)			No	*None*			Change Drop More
6	**contact_no**	varchar(11)	utf8mb4_general_ci		No	*None*			Change Drop More
7	**address**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
8	**designation**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More

	name	id	nid	joining_date	salary	contact_no	address	designation
Edit Copy Delete	Fakur	501	159623	2018-05-05	7500	01776212449	Barishal	Sales Executive
Edit Copy Delete	Rosy	502	159632	2018-07-02	7500	01776214944	Noakhali	Sales Executive
Edit Copy Delete	Riya	504	159624	2018-05-05	7500	01776212400	Dhaka	Sales Executive
Edit Copy Delete	Rimi	505	159635	2018-05-02	7500	01776214955	Dhaka	Sales Executive
Edit Copy Delete	Toma	506	156565	2017-09-04	9500	01765121944	Narayanganj	Accountant
Edit Copy Delete	Touhidul	507	164556	2017-05-03	10500	01628382133	Bagerhat	Manager
Edit Copy Delete	Shattar	508	145003	2022-01-01	4500	01700022233	Bola	Cleaner
Edit Copy Delete	Shohan	509	201035	2022-07-01	7000	01985235954	Noya Polton	Sales Executive
Edit Copy Delete	Shihab	510	807098	2022-08-02	6500	01985612358	Shahjahanpur	Assistant Manager
Edit Copy Delete	Puspa	511	159352	2022-06-01	7500	01766541800	Taltola	Brand Manager

Order List Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	order_id	int(11)			No	*None*		AUTO_INCREMENT	Change Drop More
2	order_date	date			Yes	*NULL*			Change Drop More
3	delivery_date	date			Yes	*NULL*			Change Drop More
4	suplier_id	int(11)			No	*None*			Change Drop More
5	product_id	int(11)			No	*None*			Change Drop More

	order_id	order_date	delivery_date	suplier_id	product_id
Edit Copy Delete	10001	2022-02-01	2022-02-05	904	105
Edit Copy Delete	10002	2022-03-05	2022-03-10	901	100
Edit Copy Delete	10003	2022-03-05	2022-03-10	901	101
Edit Copy Delete	10004	2022-03-05	2022-03-10	901	102
Edit Copy Delete	10005	2022-04-05	2022-04-10	903	104
Edit Copy Delete	10006	2022-03-05	2022-03-12	905	107
Edit Copy Delete	10007	2022-05-15	2022-05-17	902	113
Edit Copy Delete	10008	2022-06-05	2022-06-07	902	112
Edit Copy Delete	10009	2022-07-10	2022-07-11	906	105
Edit Copy Delete	10010	2022-07-15	2022-07-17	904	106
Edit Copy Delete	10011	2022-08-21	2022-08-22	905	114

Products Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	**name**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
2	**id**	int(11)			No	*None*		AUTO_INCREMENT	Change Drop More
3	**type**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
4	**companyName**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
5	**bar_code**	int(11)			No	*None*			Change Drop More
6	**price**	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More

	name	id	type	companyName	bar_code	price
Edit Copy Delete	7up(600ml)	100	Beverage	PepsiCo	1234	35.00
Edit Copy Delete	7up(1.25ltr)	101	Beverage	PepsiCo	1235	60.00
Edit Copy Delete	7up(2.25ltr)	102	Beverage	PepsiCo	1236	110.00
Edit Copy Delete	Mountain Dew (600ml)	103	Beverage	PepsiCo	1237	35.00
Edit Copy Delete	Speed (250ml)	104	Beverage	Akij Food and Beverage Ltd (AFBL)	1238	35.00
Edit Copy Delete	Rupchanda(2 ltr)	105	Soyabean Oil	Indian Adani Wilmar Ltd	4321	286.00
Edit Copy Delete	Fresh(5 ltr)	106	Soyabean Oil	Edible Oil	4322	728.00
Edit Copy Delete	Chashi Aromatic Chinigura Rice(1 kg)	107	Rice	Square	5431	130.00
Edit Copy Delete	Chashi Aromatic Chinigura Rice(5 kg)	108	Rice	Square	5432	630.00
Edit Copy Delete	Aarong Dairy(1 ltr)	109	Dairy Milk	Arong	6541	75.00
Edit Copy Delete	Aarong Dairy(500 ml)	110	Dairy Milk	Arong	6542	40.00
Edit Copy Delete	Gold Coffee	111	Coffee	ACI Ltd	2581	410
Edit Copy Delete	Mustard Oil (250 ml)	112	Oil	ACI Ltd	2418	75
Edit Copy Delete	ACI Pure Najirshail Rice (10 kg)	113	Rice	ACI Ltd	4758	875
Edit Copy Delete	CORONA BEER 330ml	114	Drinks	AB InBev	2356	550
Edit Copy Delete	BREAD	115	Braed	Bosundhara	1406	50

Receipts List Table

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	transaction_no	int(11)			No	*None*		AUTO_INCREMENT	Change Drop More
☐	2	product_name	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	3	quantity	double(10,2)			No	*None*			Change Drop More
☐	4	cashier_name	varchar(20)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	5	total_amount	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	6	time_	datetime			No	current_timestamp()			Change Drop More
☐	7	product_id	int(11)			No	*None*			Change Drop More
☐	8	customer_id	int(11)			No	*None*			Change Drop More

	transaction_no	product_name	quantity	cashier_name	total_amount	time_	product_id	customer_id
☐ Edit Copy Delete	1	7up	1.00	Toma	35.00	2022-04-19 00:05:40	100	107
☐ Edit Copy Delete	2	Rupchanda	1.00	Toma	286.00	2022-04-19 00:47:02	105	107
☐ Edit Copy Delete	3	Chashi Aromatic Chinigura Rice	1.00	Toma	130.00	2022-04-19 00:47:02	107	107
☐ Edit Copy Delete	4	Chashi Aromatic Chinigura Rice	1.00	Toma	130.00	2022-04-19 00:49:07	107	107
☐ Edit Copy Delete	5	Chashi Aromatic Chinigura Rice	1.00	Toma	630.00	2022-04-19 00:50:05	108	115
☐ Edit Copy Delete	6	Speed	1.00	Toma	25.00	2022-04-19 00:51:30	104	111
☐ Edit Copy Delete	7	Speed	4.00	Toma	100.00	2022-04-19 00:52:45	104	109
☐ Edit Copy Delete	8	Fresh(5ltr)	2.00	Toma	1450	2022-04-19 20:29:15	106	111
☐ Edit Copy Delete	9	Aarong Dairy(1ltr)	2.00	Toma	150	2022-04-19 20:29:15	109	115
☐ Edit Copy Delete	10	Gold Coffee	1.00	Toma	410	2022-09-02 19:50:59	111	120
☐ Edit Copy Delete	11	CORONA BEER	6.00	Toma	3300	2022-09-02 19:50:59	114	116
☐ Edit Copy Delete	12	ACI Pure Najirshail Rice (10 kg)	1.00	Toma	875	2022-09-02 19:50:59	113	117

Suppliers Table

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	supplier_name	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	2	id	int(11)			No	*None*		AUTO_INCREMENT	Change Drop More
☐	3	address	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More
☐	4	contact_no	varchar(255)	utf8mb4_general_ci		No	*None*			Change Drop More

	supplier_name	id	address	contact_no
☐ Edit Copy Delete	RR Enterprise	901	Gazipur	01345678947
☐ Edit Copy Delete	Arong	902	Dhaka	01396336963
☐ Edit Copy Delete	SKD Traders	903	Khulna	01772621944
☐ Edit Copy Delete	Meghna LTD	904	Narayangang	0137415983
☐ Edit Copy Delete	RPG Trade	905	Mymenshing	01385245675
☐ Edit Copy Delete	Shaheen Food Suppliers	906	Dhaka	01782563321
☐ Edit Copy Delete	Organic Manure Enterprise	907	Chottogram	01965214589
☐ Edit Copy Delete	Goods From BD	908	Gazipur	01832144567

4.3 Queries & Results

⇨ Search a name from a table:

```
SELECT name, id, nid, address, contact_no
FROM customers
WHERE name LIKE '%Shakib%';
```

	name	id	nid	address	contact_no
☐ Edit Copy Delete	Shakib	110	987234	Satmasjid Road	01612345698

⇨ **Find minimum, average & maximum salary from employee table:**

SELECT MAX(salary)AS Maximum, AVG(salary) AS Average, MIN(salary) AS Minimum FROM employees;

Maximum	Average	Minimum
10500	7550.0000	4500

⇨ **Find the 2nd maximum salary from employee:**

SELECT MAX(salary)AS 2nd_max_salary

FROM employees

WHERE salary < (SELECT MAX(salary) FROM employees);

2nd_max_salary
9500

⇨ **Find the 3rd or nth maximum salary from employee:**

SELECT name, salary, id, nid, designation

FROM employees ORDER BY salary DESC LIMIT 3,1;

	name	salary	id	nid	designation
Edit Copy Delete	Rosy	7500	502	159632	Sales Executive

⇨ **For total sale:**

SELECT SUM(total_amount) AS total_sell

FROM receipt;

total_sell
7521

- **Find products of required quantity and their total amount of money:**

SELECT product_name,COUNT(quantity) AS product_,SUM(total_amount) from receipt GROUP BY product_name;

product_name	product_	SUM(total_amount)
7up	1	35
Aarong Dairy(1ltr)	1	150
ACI Pure Najirshail Rice (10 kg)	1	875
Chashi Aromatic Chinigura Rice	3	890
CORONA BEER	1	3300
Fresh(5ltr)	1	1450
Gold Coffee	1	410
Rupchanda	1	286
Speed	2	125

- **Display product has been ordered from which supplier:**

SELECT order_id, suplier_id, delivery_date

FROM order_list

INNER JOIN supplier

ON order_list.suplier_id = supplier.id;

order_id	suplier_id	delivery_date
10001	904	2022-02-05
10002	901	2022-03-10
10003	901	2022-03-10
10004	901	2022-03-10
10005	903	2022-04-10
10006	905	2022-03-12
10007	902	2022-05-17
10008	902	2022-06-07
10009	906	2022-07-11
10010	904	2022-07-17
10011	905	2022-08-22

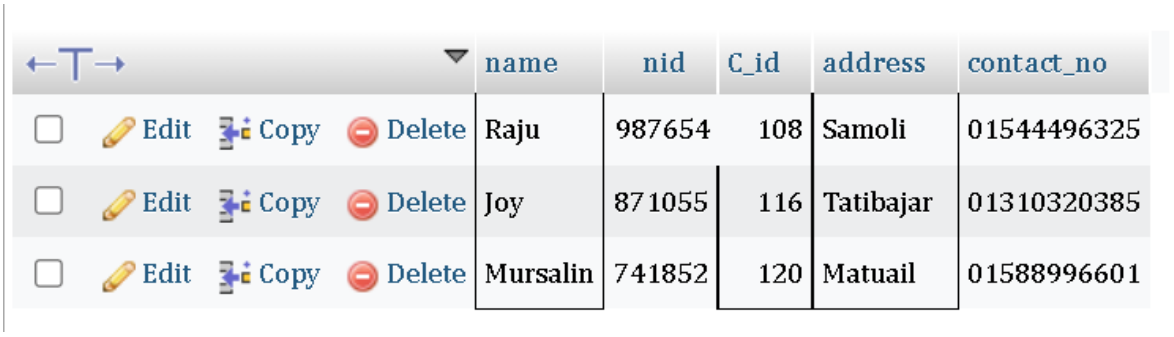
⇨ Using UNION ALL Syntax

```
SELECT product_id, order_id, order_date FROM order_list
UNION ALL
SELECT id, name, companyName FROM products;
```

product_id	order_id	order_date
105	10001	2022-02-01
100	10002	2022-03-05
101	10003	2022-03-05
102	10004	2022-03-05
104	10005	2022-04-05
107	10006	2022-03-05
113	10007	2022-05-15
112	10008	2022-06-05
105	10009	2022-07-10
106	10010	2022-07-15
114	10011	2022-08-21
100	7up(600ml)	PepsiCo
101	7up(1.25ltr)	PepsiCo
102	7up(2.25ltr)	PepsiCo
103	Mountain Dew (600ml)	PepsiCo
104	Speed (250ml)	Akij Food and Beverage Ltd (AFBL)
105	Rupchanda(2 ltr)	Indian Adani Wilmar Ltd
106	Fresh(5 ltr)	Edible Oil
107	Chashi Aromatic Chinigura Rice(1 kg)	Square
108	Chashi Aromatic Chinigura Rice(5 kg)	Square
109	Aarong Dairy(1 ltr)	Arong
110	Aarong Dairy(500 ml)	Arong
111	Gold Coffee	ACI Ltd
112	Mustard Oil (250 ml)	ACI Ltd
113	ACI Pure Najirshail Rice (10 kg)	ACI Ltd

⇨ **Using OR syntax:**

```
SELECT name, nid, id AS C_id , address, contact_no
FROM customers
WHERE name = 'Raju' OR id = 116 OR address = 'Matuail';
```



	name	nid	C_id	address	contact_no
Edit Copy Delete	Raju	987654	108	Samoli	01544496325
Edit Copy Delete	Joy	871055	116	Tatibajar	01310320385
Edit Copy Delete	Mursalin	741852	120	Matuail	01588996601

⇨ Using Order by keyword

```
SELECT *
FROM employees
ORDER BY salary ASC ;
```

	name	id	nid	joining_date	salary	contact_no	address	designation
Edit Copy Delete	Shattar	508	145003	2022-01-01	4500	01700022233	Bola	Cleaner
Edit Copy Delete	Shihab	510	807098	2022-08-02	6500	01985612358	Shahjahanpur	Assistant Manager
Edit Copy Delete	Shohan	509	201035	2022-07-01	7000	01985235954	Noya Polton	Sales Executive
Edit Copy Delete	Fakur	501	159623	2018-05-05	7500	01776212449	Barishal	Sales Executive
Edit Copy Delete	Rosy	502	159632	2018-07-02	7500	01776214944	Noakhali	Sales Executive
Edit Copy Delete	Riya	504	159624	2018-05-05	7500	01776212400	Dhaka	Sales Executive
Edit Copy Delete	Rimi	505	159635	2018-05-02	7500	01776214955	Dhaka	Sales Executive
Edit Copy Delete	Puspa	511	159352	2022-06-01	7500	01766541800	Taltola	Brand Manager
Edit Copy Delete	Toma	506	156565	2017-09-04	9500	01765121944	Narayanganj	Accountant
Edit Copy Delete	Touhidul	507	164556	2017-05-03	10500	01628382133	Bagerhat	Manager

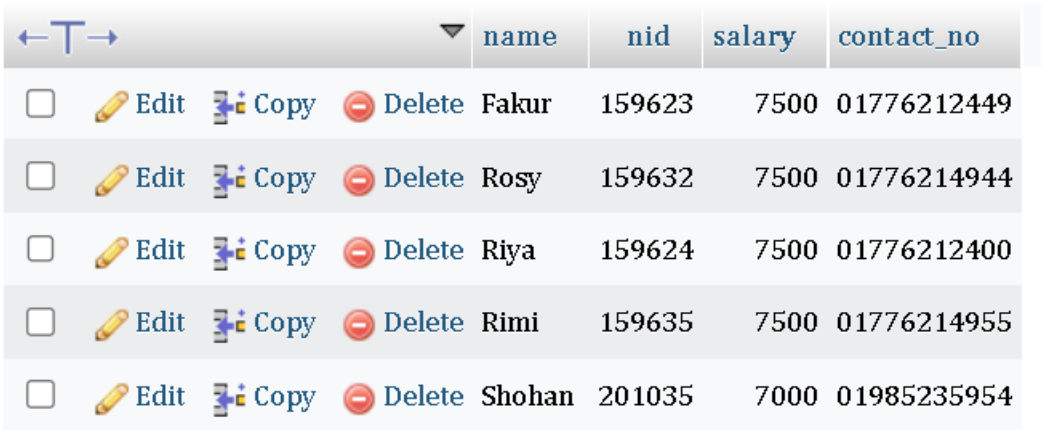
⇨ Display the employee name who have salary greater than or equal 7500

```
SELECT *
  FROM employees
  WHERE id IN (SELECT ID
      FROM employees
      WHERE SALARY >= 7500) ;
```

	name	id	nid	joining_date	salary	contact_no	address	designation
Edit Copy Delete	Fakur	501	159623	2018-05-05	7500	01776212449	Barishal	Sales Executive
Edit Copy Delete	Rosy	502	159632	2018-07-02	7500	01776214944	Noakhali	Sales Executive
Edit Copy Delete	Riya	504	159624	2018-05-05	7500	01776212400	Dhaka	Sales Executive
Edit Copy Delete	Rimi	505	159635	2018-05-02	7500	01776214955	Dhaka	Sales Executive
Edit Copy Delete	Toma	506	156565	2017-09-04	9500	01765121944	Narayanganj	Accountant
Edit Copy Delete	Touhidul	507	164556	2017-05-03	10500	01628382133	Bagerhat	Manager
Edit Copy Delete	Puspa	511	159352	2022-06-01	7500	01766541800	Taltola	Brand Manager

⇨ **Display all information who is Sales Executive**

```
SELECT name, nid, salary, contact_no
FROM employees
WHERE designation IN
(SELECT designation from employees WHERE designation = 'Sales Executive') LIMIT 5
```



	name	nid	salary	contact_no
Edit Copy Delete	Fakur	159623	7500	01776212449
Edit Copy Delete	Rosy	159632	7500	01776214944
Edit Copy Delete	Riya	159624	7500	01776212400
Edit Copy Delete	Rimi	159635	7500	01776214955
Edit Copy Delete	Shohan	201035	7000	01985235954

Chapter 5

5.1 Conclusion

This type of software will help the authorities to keep track of their every processesstarting from receiving goods to distribution and sales. And also makes the process of maintaining easier by replacing the manual system. So, this type of software willbe helped full for growing the business faster.

5.2 Particle Implementation and Future Scope

Now a days this type of software often used in many departmental stores as well assuper shops. If we add some functionalities related to hardware likes rearranging theproducts, caring the loads and some more advance functionalities that will be more covenant to the user.

5.3 References:

I. https://www.w3schools.com/mysql
II. https://www.javatpoint.com/sql-tutorial
III. Lab Manuals Course Teacher