

## Internet and Web Technologies – IS1207 (Assignment 13)

### CREATE DATABASE

```
1 CREATE DATABASE FoodExpressDB;
```

### CREATE TABLES

1.

```
1 Use FoodExpressDB;
2 CREATE TABLE Restaurants(
3     restaurant_id int PRIMARY KEY
4     AUTO_INCREMENT,
5     name varchar (80) NOT NULL,
6     cuisine varchar (40),
7     rating decimal(2,1),
8     phone varchar(15),
9     city varchar(40)
10 );
```

Browse	Structure	SQL	Search	Insert	Export	Import	Privileges	Operations	Tracking
Table structure		Relation view							
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	restaurant_id	int(11)			No	None		AUTO_INCREMENT	Change  Drop  More
<input type="checkbox"/> 2	name	varchar(80)	utf8mb4_general_ci		No	None			Change  Drop  More
<input type="checkbox"/> 3	cuisine	varchar(40)	utf8mb4_general_ci		Yes	NULL			Change  Drop  More
<input type="checkbox"/> 4	rating	decimal(2,1)			Yes	NULL			Change  Drop  More
<input type="checkbox"/> 5	phone	varchar(15)	utf8mb4_general_ci		Yes	NULL			Change  Drop  More
<input type="checkbox"/> 6	city	varchar(40)	utf8mb4_general_ci		Yes	NULL			Change  Drop  More
↑ <input type="checkbox"/> Check all With selected:  Browse  Change  Drop  Primary  Unique  Index  Spatial  Fulltext									


2.


















```

1 CREATE TABLE Customers (
2     customer_id INT PRIMARY KEY AUTO_INCREMENT,
3     name VARCHAR(60) NOT NULL,
4     email VARCHAR(100) UNIQUE,
5     phone VARCHAR(15),
6     city VARCHAR(40)
7 );
8 |

```

 Table structure

 Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	customer_id 	int(11)			No	None		AUTO_INCREMENT	 Change  Drop  More
<input type="checkbox"/> 2	name	varchar(60)	utf8mb4_general_ci		No	None			 Change  Drop  More
<input type="checkbox"/> 3	email 	varchar(100)	utf8mb4_general_ci		Yes	NULL			 Change  Drop  More
<input type="checkbox"/> 4	phone	varchar(15)	utf8mb4_general_ci		Yes	NULL			 Change  Drop  More
<input type="checkbox"/> 5	city	varchar(40)	utf8mb4_general_ci		Yes	NULL			 Change  Drop  More

3.

```

1 CREATE TABLE Orders (
2     order_id INT PRIMARY KEY AUTO_INCREMENT,
3     customer_id int NOT NULL,
4     restaurant_id int NOT NULL,
5     order_date Date,
6     total_amount decimal(7,2),
7     status
8     ENUM('PLACED','DELIVERED','CANCELLED'),
9     FOREIGN KEY (customer_id) REFERENCES
Customers(customer_id),
10    FOREIGN KEY (restaurant_id) REFERENCES
Restaurants(restaurant_id)
);
|

```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	order_id			No	None		AUTO_INCREMENT	Change  Drop  More
<input type="checkbox"/>	2	customer_id			No	None			Change  Drop  More
<input type="checkbox"/>	3	restaurant_id			No	None			Change  Drop  More
<input type="checkbox"/>	4	order_date			Yes	NULL			Change  Drop  More
<input type="checkbox"/>	5	total_amount			Yes	NULL			Change  Drop  More
<input type="checkbox"/>	6	status			Yes	NULL			Change  Drop  More

1.

```

1 INSERT INTO Restaurants (restaurant_id, name,
2   cuisine, rating, phone, city) VALUES
3   (1, 'Spice House', 'Sri Lankan', 4.6,
4     '0112345678', 'Colombo'),
5   (2, 'Sea Breeze', 'Seafood', 4.2, '0912255777',
6     'Galle'),
7   (3, 'Green Bowl', 'Vegetarian', 4.8,
8     '0817778899', 'Kandy'),
9   (4, 'Pizza Corner', 'Italian', 3.9,
10    '0119988776', 'Colombo'),
11   (5, 'Curry Leaf', 'Indian', 4.5, '0372233445',
12    'Kurunegala');

```

		restaurant_id	name	cuisine	rating	phone	city
<input type="checkbox"/>	Edit  Copy  Delete	1	Spice House	Sri Lankan	4.6	0112345678	Colombo
<input type="checkbox"/>	Edit  Copy  Delete	2	Sea Breeze	Seafood	4.2	0912255777	Galle
<input type="checkbox"/>	Edit  Copy  Delete	3	Green Bowl	Vegetarian	4.8	0817778899	Kandy
<input type="checkbox"/>	Edit  Copy  Delete	4	Pizza Corner	Italian	3.9	0119988776	Colombo
<input type="checkbox"/>	Edit  Copy  Delete	5	Curry Leaf	Indian	4.5	0372233445	Kurunegala

2.

```

1 INSERT INTO Customers (customer_id, name,
  email, phone, city) VALUES
2 (1, 'Nuwan Silva', 'nuwan@silva.lk',
  '0771231234', 'Colombo'),
3 (2, 'Ishara Perera', 'ishara@perera.com',
  '0719988776', 'Galle'),
4 (3, 'Malini Fernando', 'm.fernando@gmail.com',
  NULL, 'Kandy'),
5 (4, 'Tharindu Jayasuriya',
  'tharindu@jaya.com', '0754455667', 'Colombo'),
6 (5, 'Ayesha Ranasinghe',
  'ayesha.r@ranasinghe.lk', '0723344556',
  'Matara');
7 |

```

	customer_id	name	email	phone	city
<input type="checkbox"/> Edit Copy Delete	1	Nuwan Silva	nuwan@silva.lk	0771231234	Colombo
<input type="checkbox"/> Edit Copy Delete	2	Ishara Perera	ishara@perera.com	0719988776	Galle
<input type="checkbox"/> Edit Copy Delete	3	Malini Fernando	m.fernando@gmail.com	NULL	Kandy
<input type="checkbox"/> Edit Copy Delete	4	Tharindu Jayasuriya	tharindu@jaya.com	0754455667	Colombo
<input type="checkbox"/> Edit Copy Delete	5	Ayesha Ranasinghe	ayesha.r@ranasinghe.lk	0723344556	Matara

3.

```

1 INSERT INTO Orders (order_id, customer_id,
  restaurant_id, order_date, total_amount, status)
  VALUES
2 (1, 1, 1, '2025-08-10', 1800.00, 'DELIVERED'),
3 (2, 2, 2, '2025-08-12', 2500.00, 'DELIVERED'),
4 (3, 3, 3, '2025-07-30', 1200.00, 'CANCELLED'),
5 (4, 4, 4, '2025-08-15', 3200.00, 'PLACED'),
6 (5, 5, 1, '2025-08-16', 950.00, 'DELIVERED');
7

```

	order_id	customer_id	restaurant_id	order_date	total_amount	status
<input type="checkbox"/> Edit  Copy  Delete	1	1	1	2025-08-10	1800.00	DELIVERED
<input type="checkbox"/> Edit  Copy  Delete	2	2	2	2025-08-12	2500.00	DELIVERED
<input type="checkbox"/> Edit  Copy  Delete	3	3	3	2025-07-30	1200.00	CANCELLED
<input type="checkbox"/> Edit  Copy  Delete	4	4	4	2025-08-15	3200.00	PLACED
<input type="checkbox"/> Edit  Copy  Delete	5	5	1	2025-08-16	950.00	DELIVERED

## SELECT Queries

1. `1 SELECT * FROM `Restaurants`;`

	restaurant_id	name	cuisine	rating	phone	city
<input type="checkbox"/> Edit  Copy  Delete	1	Spice House	Sri Lankan	4.6	0112345678	Colombo
<input type="checkbox"/> Edit  Copy  Delete	2	Sea Breeze	Seafood	4.2	0912255777	Galle
<input type="checkbox"/> Edit  Copy  Delete	3	Green Bowl	Vegetarian	4.8	0817778899	Kandy
<input type="checkbox"/> Edit  Copy  Delete	4	Pizza Corner	Italian	3.9	0119988776	Colombo
<input type="checkbox"/> Edit  Copy  Delete	5	Curry Leaf	Indian	4.5	0372233445	Kurunegala

- 2.

```
1 SELECT name,cuisine FROM restaurants where
rating>=4.5;
```

	name	cuisine
<input type="checkbox"/> Edit  Copy  Delete	Spice House	Sri Lankan
<input type="checkbox"/> Edit  Copy  Delete	Green Bowl	Vegetarian
<input type="checkbox"/> Edit  Copy  Delete	Curry Leaf	Indian

- 3.

```
1 SELECT * FROM Customers WHERE email LIKE
'%.com';
```

		customer_id	name	email
<input type="checkbox"/>	Edit Copy Delete	2	Ishara Perera	ishara@perera
<input type="checkbox"/>	Edit Copy Delete	3	Malini Fernando	m.fernando@g
<input type="checkbox"/>	Edit Copy Delete	4	Tharindu Jayasuriya	tharindu@jaya

4.

```
1 SELECT * FROM orders WHERE total_amount>2000
ORDER BY total_amount DESC;
```

		order_id	customer_id	restaurant_id	order_date	total_amount	1	status
<input type="checkbox"/>	Edit Copy Delete	4	4	4	2025-08-15	3200.00		PLACED
<input type="checkbox"/>	Edit Copy Delete	2	2	2	2025-08-12	2500.00		DELIVERED

5.

```
1 SELECT * FROM restaurants WHERE city="COLOMBO"
ORDER BY rating DESC, name ASC;
```

	restaurant_id	name	cuisine	rating	phone	city
		2		1		
Delete	1	Spice House	Sri Lankan	4.6	0112345678	Colombo
Delete	4	Pizza Corner	Italian	3.9	0119988776	Colombo

## UPDATE Queries

6.

```
1 UPDATE orders SET total_amount=total_amount+  
  total_amount*0.05 WHERE order_date < '2025-08-  
  01';
```

✓ 1 row affected. (Query took 0.0004 seconds.)

```
UPDATE orders SET total_amount=total_amount+ total_amount*0.05  
WHERE order_date < '2025-08-01';
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

7.

```
1 UPDATE customers SET phone='0717770001' WHERE  
  name = "Ishara Perera" ;
```

8.

```
1 UPDATE Restaurants SET rating = 4.0 WHERE name =  
  'Pizza Corner';
```

✓ 1 row affected. (Query took 0.0005 seconds.)

```
UPDATE Restaurants SET rating = 4.0 WHERE name = 'Pizza Corner';
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

## DELETE Queries

9.

```
1 DELETE FROM orders WHERE order_id=3;
```

✓ 1 row deleted. (Query took 0.0017 seconds.)

```
DELETE FROM orders WHERE order_id=3;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP \]](#)

10.

```
1 DELETE FROM Customers WHERE phone IS NULL;
```

✓ 1 row deleted. (Query took 0.0012 seconds.)

```
DELETE FROM Customers WHERE phone IS NULL;
```

## ALTER TABLE

11.

```
1 ALTER TABLE Orders ADD COLUMN delivery_fee  
  DECIMAL(6,2) DEFAULT 0.00;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
ALTER TABLE Orders ADD COLUMN delivery_fee DECIMAL(6,2) DEFAULT  
0.00;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)



12.

```
ALTER TABLE Customers MODIFY email VARCHAR(150);
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
ALTER TABLE Customers MODIFY email VARCHAR(150);
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

13.

```
1 ALTER TABLE Restaurants DROP COLUMN phone;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

```
ALTER TABLE Restaurants DROP COLUMN phone;
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

### Drop Table

```
1 DROP TABLE Orders;
```

```
2
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

DROP TABLE Orders;

[ [Edit inline](#) ] [ [Edit](#) ] [ [Create PHP code](#)

## JOIN Queries

14.

```
1 SELECT o.order_id, c.name AS customer_name,  
2    r.name AS restaurant_name, o.total_amount  
3 FROM Orders o  
4 JOIN Customers c ON o.customer_id =  
5    c.customer_id  
6 JOIN Restaurants r ON o.restaurant_id =  
7    r.restaurant_id  
8 WHERE o.status = 'DELIVERED';|
```

15.

```
1 SELECT c.name, COUNT(o.order_id) AS num_orders  
2 FROM Customers c  
3 LEFT JOIN Orders o ON c.customer_id =  
4    o.customer_id  
5 GROUP BY c.name;|
```

## Aggregate Queries

16.

```
1 SELECT c.city, SUM(o.total_amount) AS  
   total_revenue  
2 FROM Customers c  
3 JOIN Orders o ON c.customer_id = o.customer_id  
4 WHERE o.status = 'DELIVERED'  
5 GROUP BY c.city  
6 ORDER BY total_revenue DESC;
```

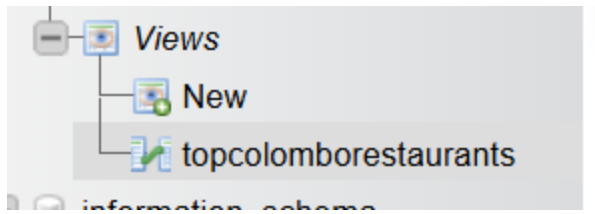
17.

```
1 SELECT r.city, r.name, r.rating  
2 FROM Restaurants r  
3 WHERE r.rating = (  
4     SELECT MAX(r2.rating)  
5     FROM Restaurants r2  
6     WHERE r2.city = r.city  
7 );
```

## VIEW & INDEX (Bonus)

18.

```
1 CREATE VIEW TopColomboRestaurants AS  
2 SELECT restaurant_id, name, rating  
3 FROM Restaurants  
4 WHERE city = 'Colombo' AND rating >= 4.5;
```



19.

