**Database Management System Report**

**Bigmouth: A restaurant recommendation chatbot**

**(UCS411)**

**Fourth-Semester**

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**Submitted To:**

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3.Introduction:

Bigmouth is an Interactive, user-friendly chat application.

User can find Restaurant’s, Restaurant menu, food items prices available in PATIALA using FACEBOOK Messenger.

User/Customer can find menu of restaurants available in PATIALA, just by using Facebook messenger. Not only menu but also prices and can give feedback by Updating menu of restaurant.

Along with menu User/Customer can find Ratings of the Restaurants such as “Good”, “Average” or “Bad” based on the Staff politeness Rating (srating) , cuisine/food Rating (crating) and cleanliness/ambience Rating of Restaurants(arating) using AI technique called as KNN.

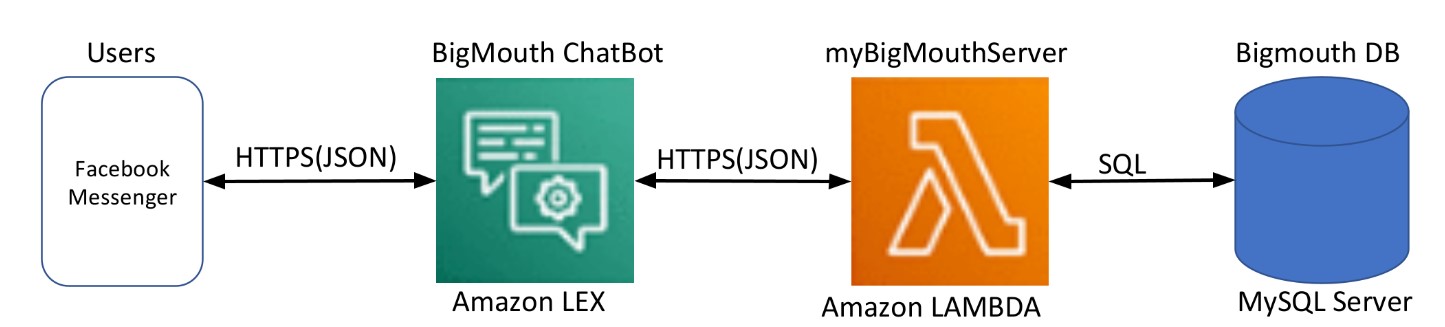


Figure 3.1 Layout of Application Bigmouth

Application Bigmouth uses 3 AWS Cloud services:

1.Amazon LEX

2. Amazon LAMBDA

3. MySQL SERVER (ON Amazon EC2)

Facebook Page Link:

<https://www.facebook.com/profile.php?id=100091719981771>

Facebook login details:

email: chatbot.test707@gmail.com

password: Shimito#2470

(NOTE: Please don’t use Thapar WIFI while login in Facebook)

4.ER – Diagram

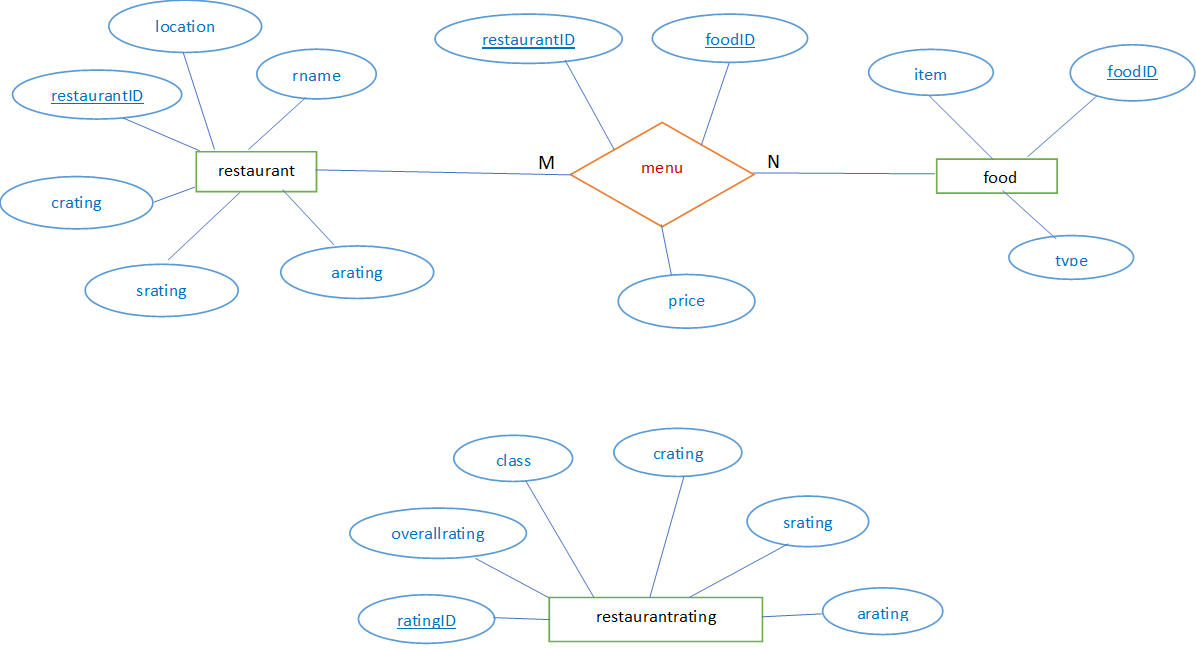


Figure 4.1 ER – Diagram of Bigmouth

5.ER to Table

menu

|  |  |
| --- | --- |
| FK  FK | foodID  restaurantID |
|  | price |

|  |  |
| --- | --- |
| PK | foodID |
| UK | type  item |

restaurant

food

|  |  |
| --- | --- |
| PK | restaurantID |
|  | rname  location  srating  arating  crating |

restaurantrating

|  |  |
| --- | --- |
| PK | ratingID |
|  | class  crating  arating  srating  overallrating |

Figure 5.1 ER to Table Diagram of Bigmouth

1. Table food has foodID as the primary key
2. Table restaurant has the restaurantID as the primary key
3. Table menu has a composite primary key consist of foodID and restaurant ID which are in turn the foreign key from the table food and restaurant respectively.
4. Table restaurantrating has the ratingID as primary key.

6.Normalization

1 NF (First Normal Form)

Condition: Each cell of a table should contain a single value.

Table “menu”, “food”, “restaurant” and “restaurantrating” are 1NF.

* + ***Each table has a primary key.***
  + ***There are no repeating groups or arrays in the tables.***

2 NF (Second Normal Form)

Condition: It is in 1 NF and each table should contain a single primary key.

Table “menu”, “food”, “restaurant” and “restaurantrating” are 2NF.

* ***Each non-key column in each table is functionally dependent entirely on the primary key.***
* ***There are no partial dependencies.***

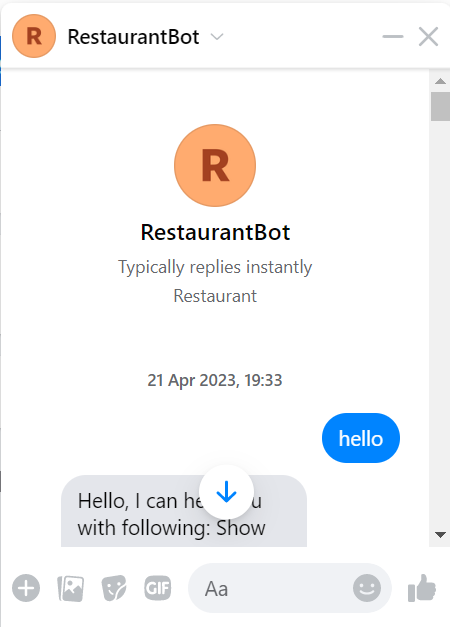
3 NF (Third Normal Form)

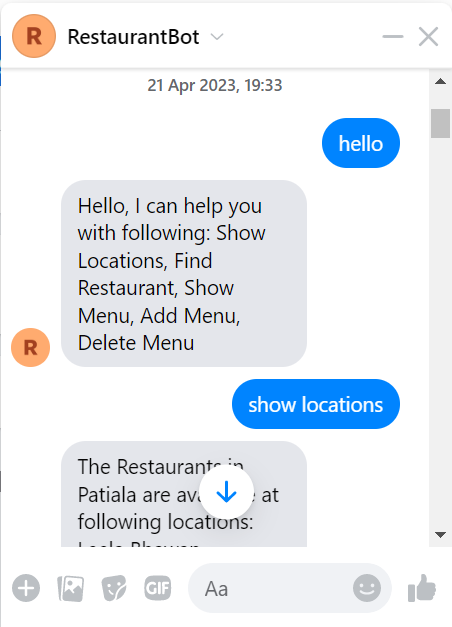
Condition: It is in 2 NF and there is no transitive dependency.

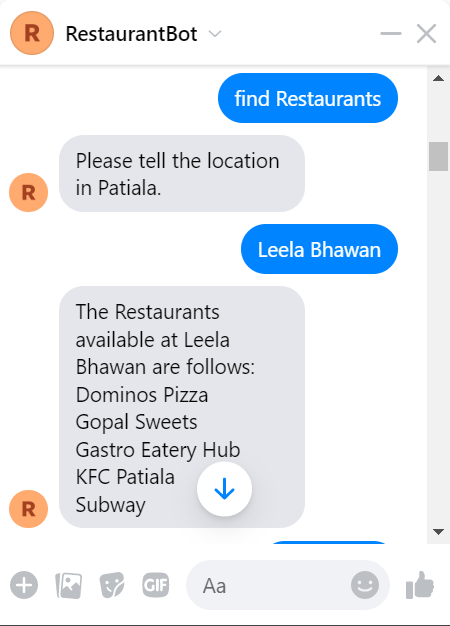
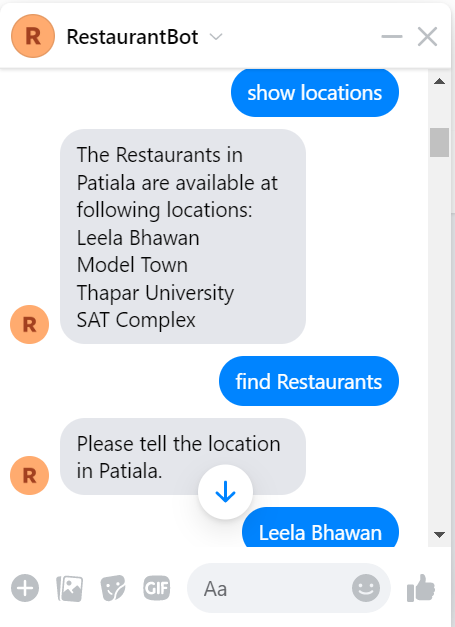
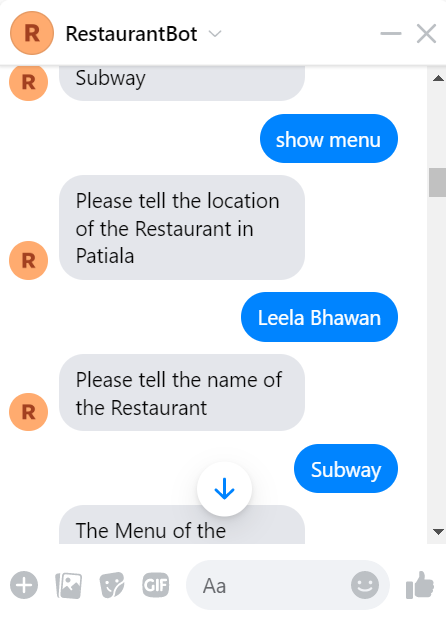
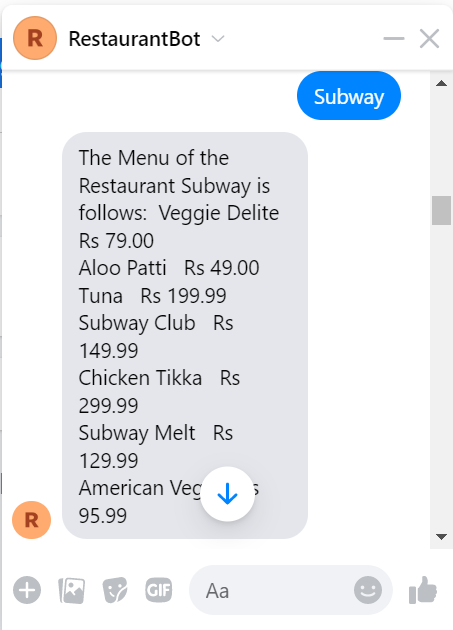
Table “menu”, “food”, “restaurant” (and resturantrating) is in 3NF because t***here are no transitive dependencies in the tables***

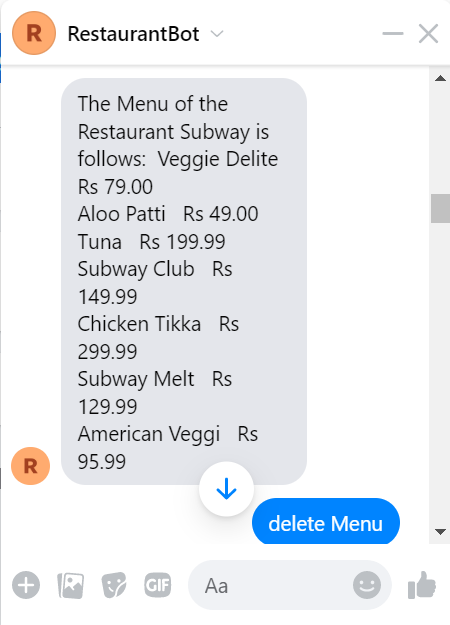
7.SQL (MYSQL)

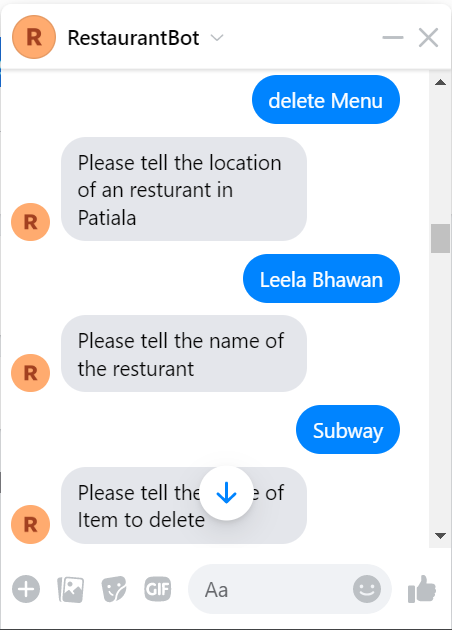
(FRONT END)

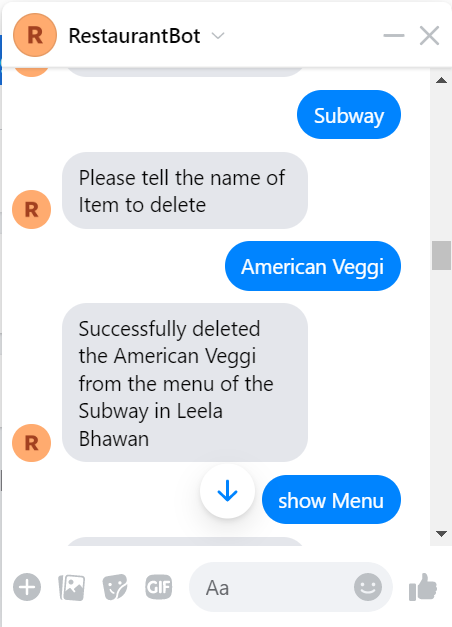
**7.1.Selecting Data From Table in mySQL** 

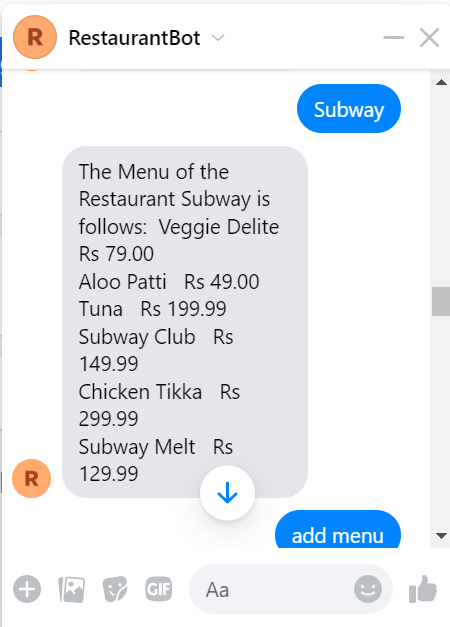
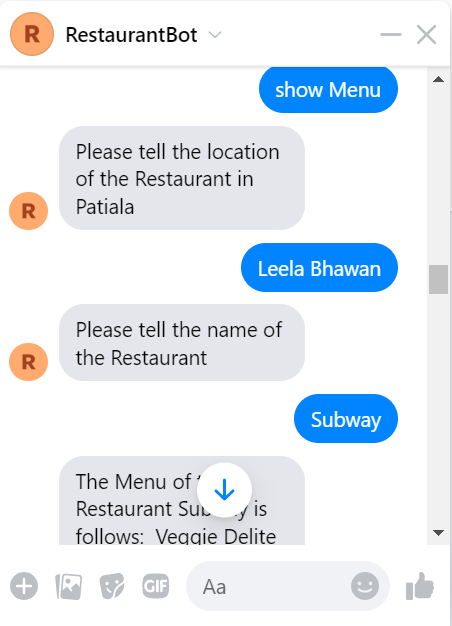


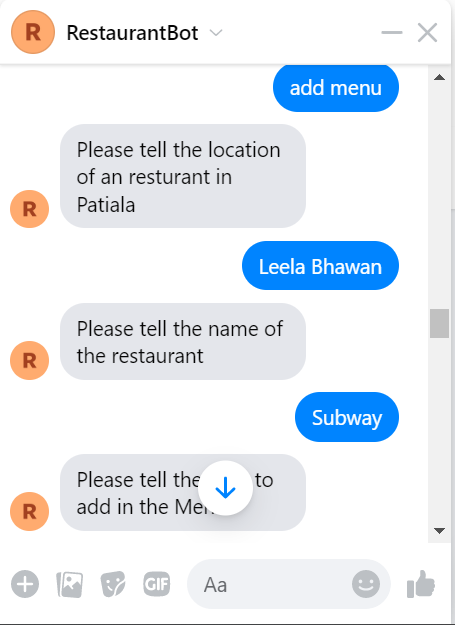
  

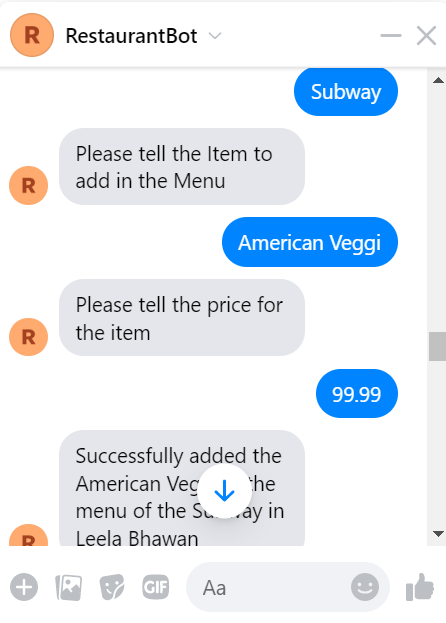


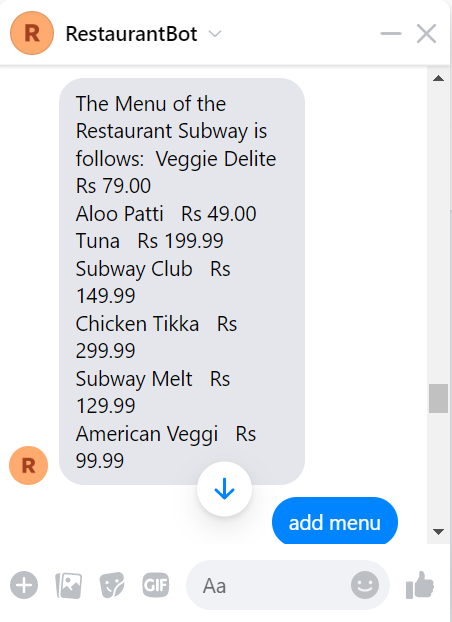
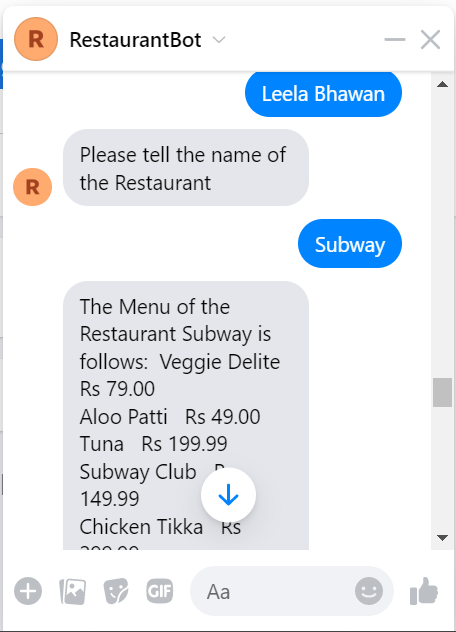
**7.2.Deleting Data From Table in mySQL**

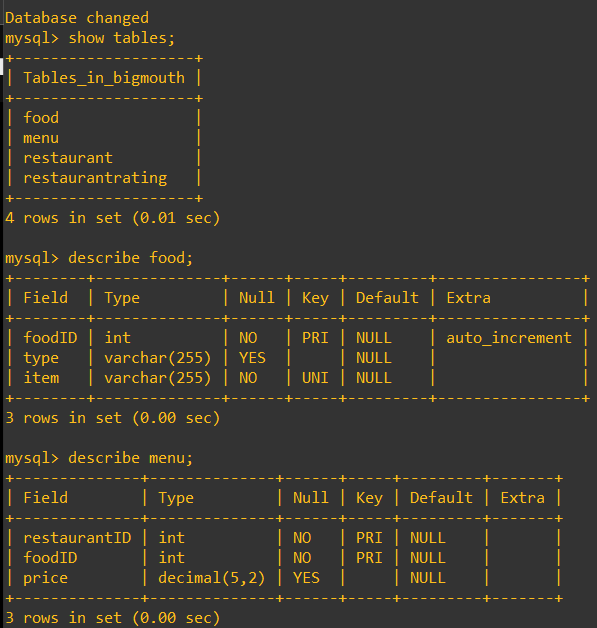


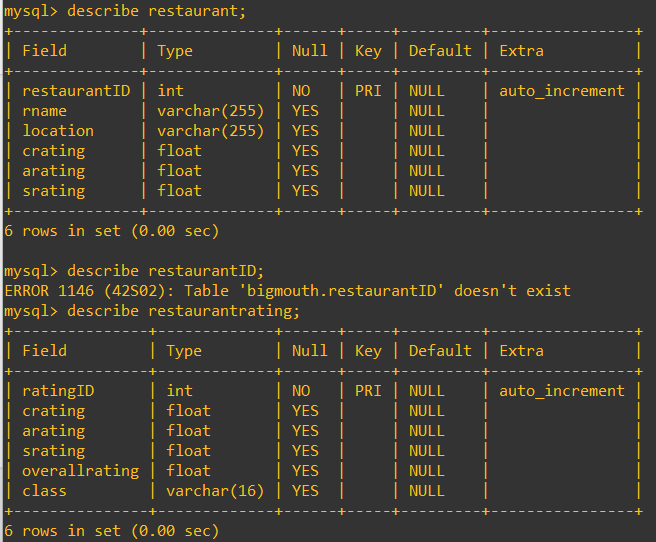


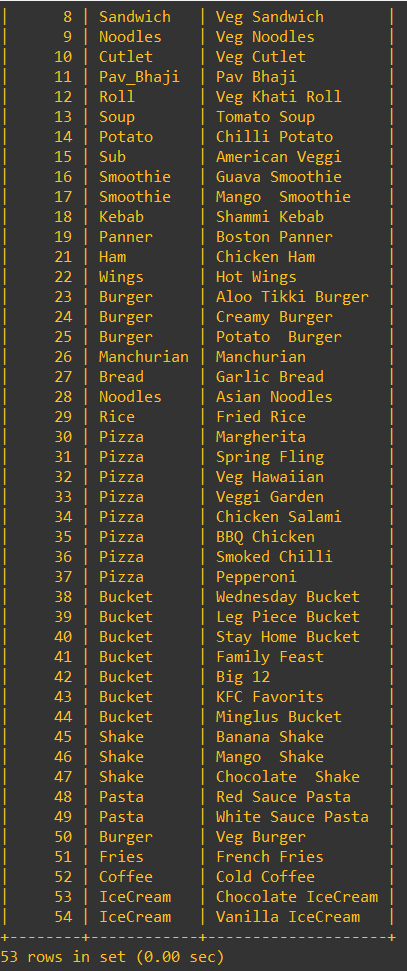
**7.3.Updating Data From Table in mySQL **

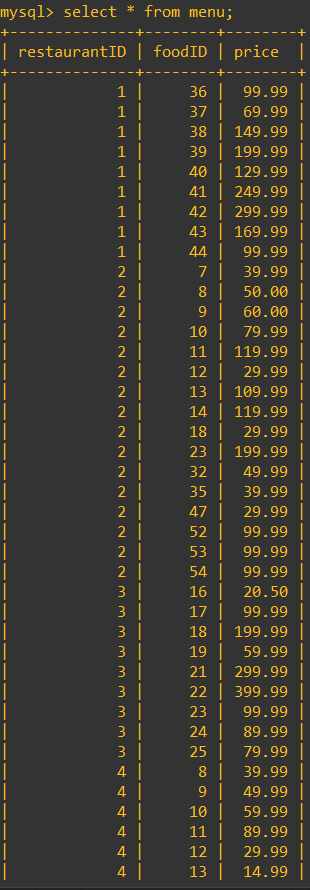
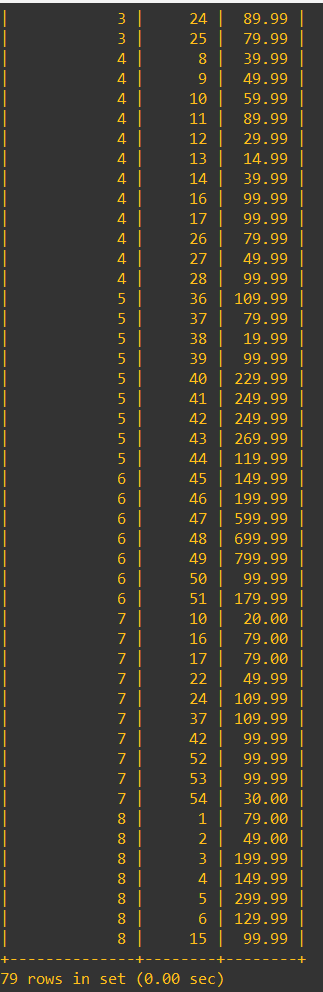
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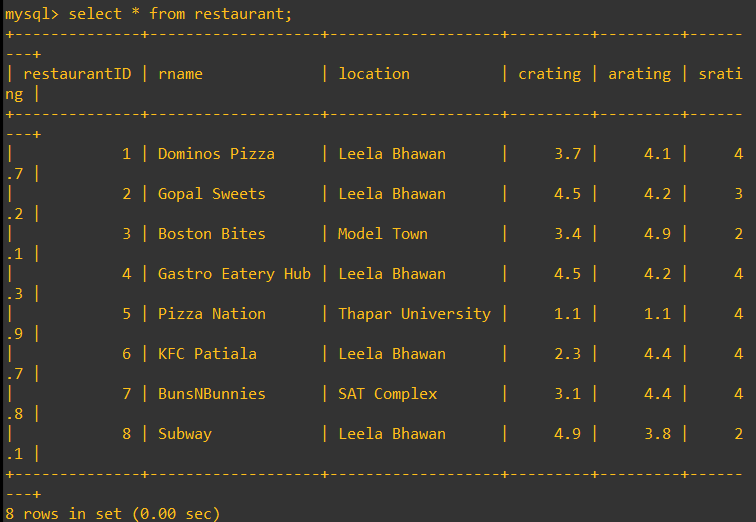
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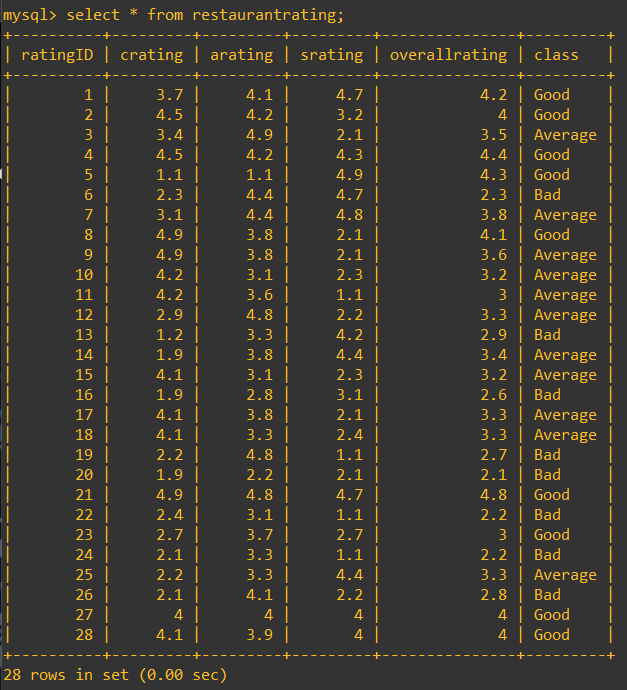
Back End (MySQL)







8.Conclusion

Bigmouth is User friendly, Facebook available chat application which uses AWS services to provide user Information about restaurants available in PATIALA.

As the application BIGMOUTH uses Cloud based platform (AWS), the application can be modified, accessed in many ways, like here Facebook or can be used on WhatsApp also.

User/Customer can find menu of restaurants available in PATIALA, just by using Facebook. Not only menu but also prices and can give feedback by Updating menu of restaurant.

Along with menu User/Customer can find Ratings of Restaurants such as “Good”, “Average” or “Bad” based on the Staff politeness Rating(srating) , cuisine/food Rating (crating) and cleanliness/ambience Rating of Restaurant(arating).

Bigmouth uses KNN Algorithm (a AI technique), which can estimate/forecast the overall rating of the restaurants using the vast raw data collected in systematic manner from User/Customer.

User/Customer can provide feedback by updating menu of restaurant and can update restaurants food item’s price. Along with this User/Customer can delete food item if its unavailable in restaurant.

As a Conclusion, Bigmouth is interactive and user-friendly application that uses MySQL as DATABASE and can be expanded in to various cities and towns.

9.References

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2. https://www.serverless.com/aws-lambda

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4. https://docs.aws.amazon.com/lexv2/latest/dg/what-is.html

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