DBMS Project Report
Manipal Restaurant Explorer

Team - BackToTheSQL

Submitted By

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MANIPAL
A Constituent Institution of Manipal University

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PROBLEM STATEMENT

DESIGN AN APPLICATION ON ANY TOPIC OF CHOICE THAT SATISFIES THE FOLLOWING TECHNICAL REQUIREMENTS

- 5 tables
- 5 user interfaces
- Nested Queries-Complex
- Stored procedure, Function
- Triggers
- Back end: Any RDBMS Software
- Front End: As per the choice of the team

MOTIVATION

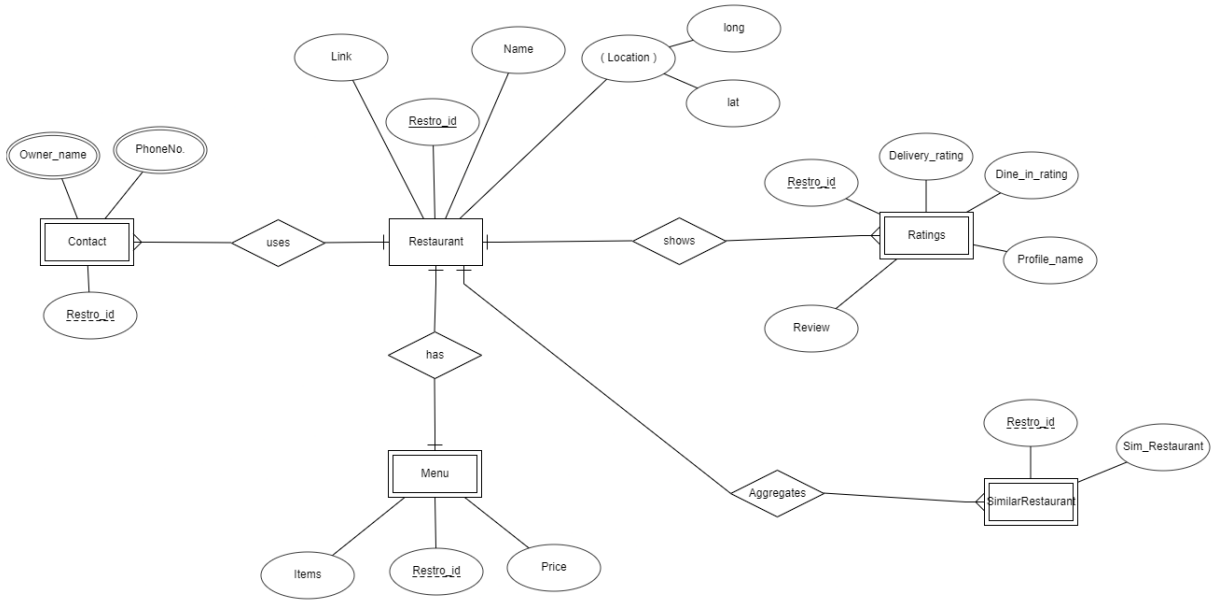
Manipal is home to 100s of restaurants. Upon gathering all the data, we found more than 150 restaurants. There is a need to streamline the data so that it is easily accessible to the public. There is a constant need for contact details of smaller restaurants such as the ones present on campus as most of these outlets are usually not present on food apps such as Zomato, Swiggy, etc. moreover by bringing these restaurants closer to the customer eliminates the need for aggregator apps by directly providing the customer with the contact details of the restaurants. When we had first come to Manipal we faced these issues with regards to attaining contact details of restaurants on campus and others that are not present on food delivery apps. We hope that our project will make it easier for upcoming students and for residents of Manipal.

ABSTRACT

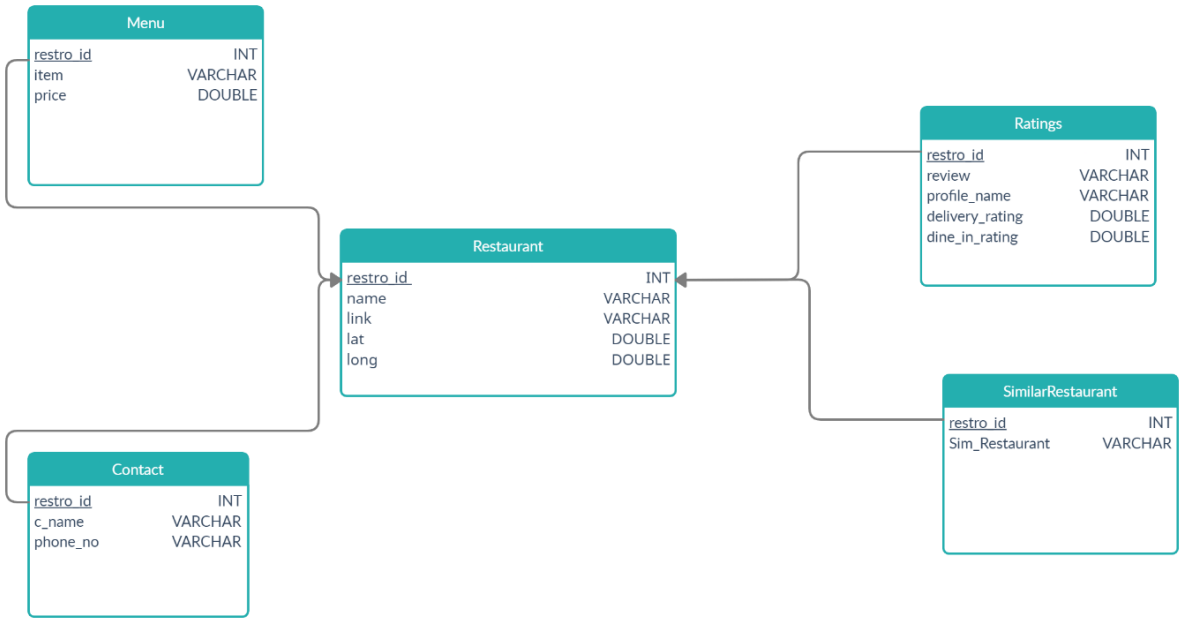
We propose an applet that curates the name of the restaurant, location, and the menu of the restaurant. To aid customer perception we also provide the ratings of each restaurant. We first found there to be a total of 167 restaurants upon surveying multiple websites such as Zomato, Google, etc. We used Python's Scrapy library for aggregating real-time data. We utilized geographical pinpointing for selecting these places. Their menu items, ratings, location details, etc. were recovered from these sources. We modularized our code to scrape for user-sourced locations focusing on Manipal for said project. This allowed us to use real-life data in our project aggregated over trusted sources.

An aggregate of 168 restaurants were applicable for our localization function, scraping these restaurants allowed us to complete our database with real data. Ratings of over 62 restaurants are provided, with an average of 4.22/5 stars. Location of each restaurant was addressed using Google Maps and appropriate links are presented through our project. We were able to survey and agglomerate the menu details of 141 restaurants, with an average of 63 items available in each of these.

ER DIAGRAM


long
Link
Name
(Location)
lat
Restro_id
Owner_name
PhoneNo.
Delivery_rating
Restro_id
Dine_in_rating
Contact
uses
Restaurant
shows
Ratings
Profile_name
Restro_id
Review
has
Restro_id
Sim_Restaurant
Menu
Aggregates
SimilarRestaurant
Items
Restro_id
Price

RELATIONSHIP SCHEMA



TABLES

We used real world data to complete our tabulations, these include data scraped from different restaurant aggregator sites like Zomato, and Swiggy. We present descriptive tables and examples for each of them.

RESTAURANTS:

restro_id	**name**	**link**	**lat**	**long**
Unique identifier for each restaurant within the city of Manipal. Acts as the primary key for the Restaurant table.	Restaurant name provides the official name of the restaurant given its restro_id.	Provides the Zomato/Swiggy ordering link. Allowing users to interact with other aggregators available on their phones.	Provides latitude of the restaurant allowing users to avail Google Maps for easy travelling.	Provides longitude of the restaurant allowing users to avail Google Maps for easy travelling.

0	Drips Bakery and Cakes	https://www.zomato.com/manipal/drips-bakery-and-cakes-vidyaratna-nagar/order	13.35245	74.78405
1	McDonald's	https://www.zomato.com/manipal/mcdonalds-eshwar-nagar/order	13.35263	74.79008

RATINGS:

restro_id	**review**	**profile_name**	**delivery_rating**	**dine_in_rating**
Unique identifier for each restaurant within the city of Manipal. Acts as the primary key for	Comments made by customers who ordered at these restaurants	Username of the individual who has given the review	Provides ratings out of 5 for delivery services availed by the user.	Provides ratings out of 5 for dine-in services availed by the user.

the Restaurant table.				

1	superb! very fast order	Sara Swathi	5	
1	I had specified to give proper amount of fries, the medium fries was very less as compared to usual.	Anutham Krishnan		3

SIMILAR RESTAURANTS:

restro_id	**sim_restaurant**
Unique identifier for each restaurant within the city of Manipal. Acts as the primary key for the Restaurant table.	Restaurant names which offer similar dishes and ambience, to given restro_id.

1	Pizza Hut
1	Domino’s Pizza

MENU:

restro_id	**item**	**price**
Unique identifier for each restaurant within the city of Manipal. Acts as the primary key for the Restaurant table.	Item and dish names offered by the restaurants.	Prices of these items.

1	McSpicy Chicken Burger + Veg Pizza McPuff	161.90
1	McChicken Burger	118.10

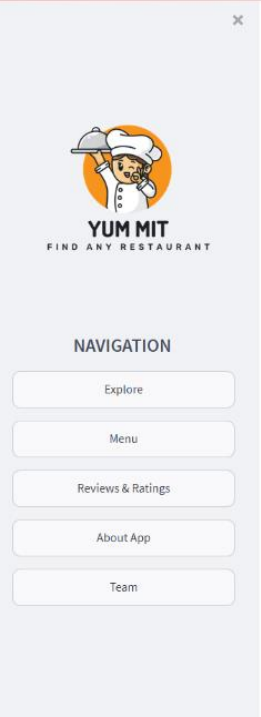
CONTACT:

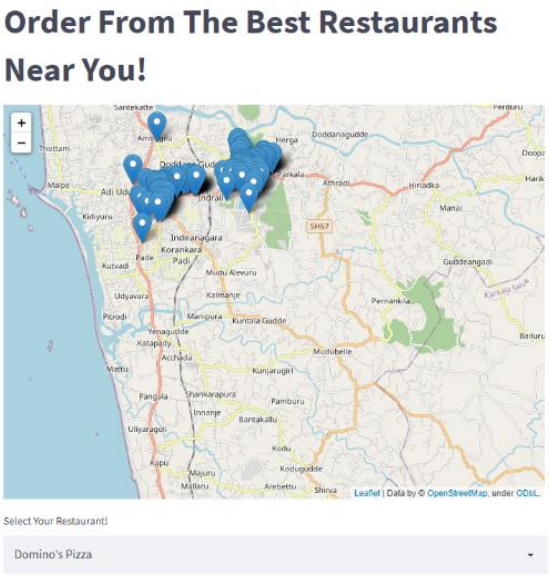
restro_id	**c_name**	**phone_no**
Unique identifier for each restaurant within the city of Manipal. Acts as the primary key for the Restaurant table.	Contact name of the person's phone number.	Phone number to communicate with the restaurants.

4	Help-Desk	+918204299973
4	Booking	+918792235502

CODE

EXPLORE AND VIEW IN EXPLORE PAGE

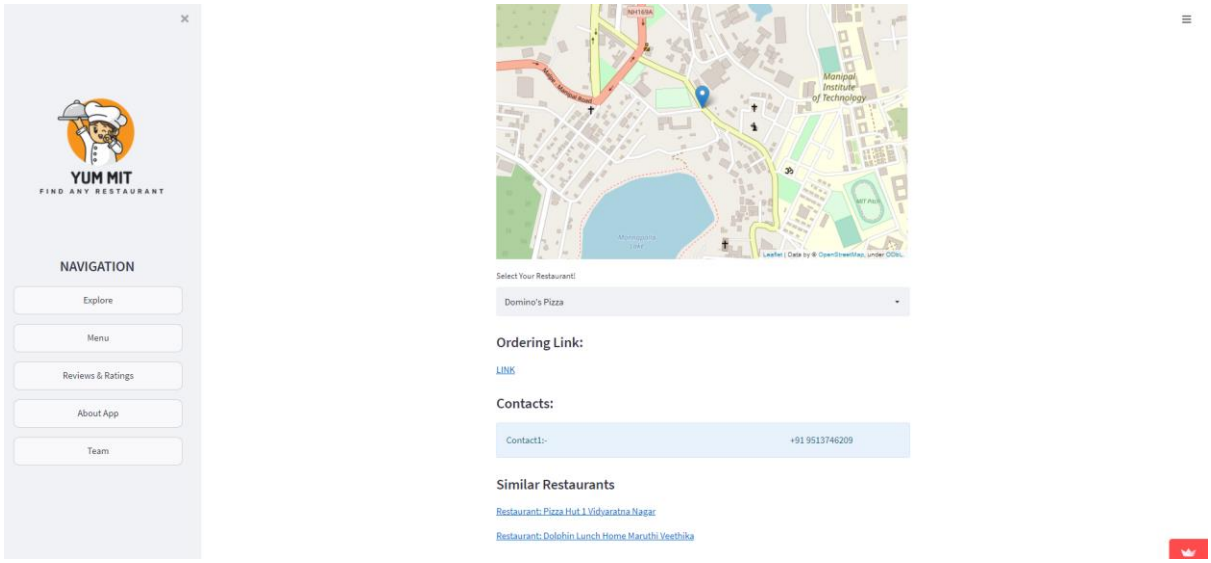




SELCT * FROM NAME FROM RESTAURANT;

--THIS COMMAND IS USD TO POPULATE THE COMBOBOX WITH ALL RESTAURANT NAMES

CONTACT DETAILS IN RESTAURANT PAGE



mycursor.execute("SELECT t.c_name, t.phone_no FROM (SELECT * FROM Contact WHERE restro_id="+str(restaurants[restro_id_selected][0])+") AS t")

--THIS COMMAND IS USED TO RETRIEVE CONTACT DETAILS OF THE RESTAURANT AND DISPLAY IT INTO THE GUI.

--NESTED QUERY HAS BEEN USED HERE TO OBTAIN CONTACT DETAILS

mycursor.execute("SELECT * FROM SimilarRestaurant WHERE restro_id="+str(restaurants[restro_id_selected][0]))

//THIS COMMAND IS USED TO RETRIEVE RESTAURANTS THAT ARE SIMILAR TO THE RESTAURANT THAT YOU HAVE SELECTED.

MENU PAGE


```
mycursor.execute("SELECT * FROM Menu WHERE
restro_id="+str(restaurants[restro_id_selected][0]))
```

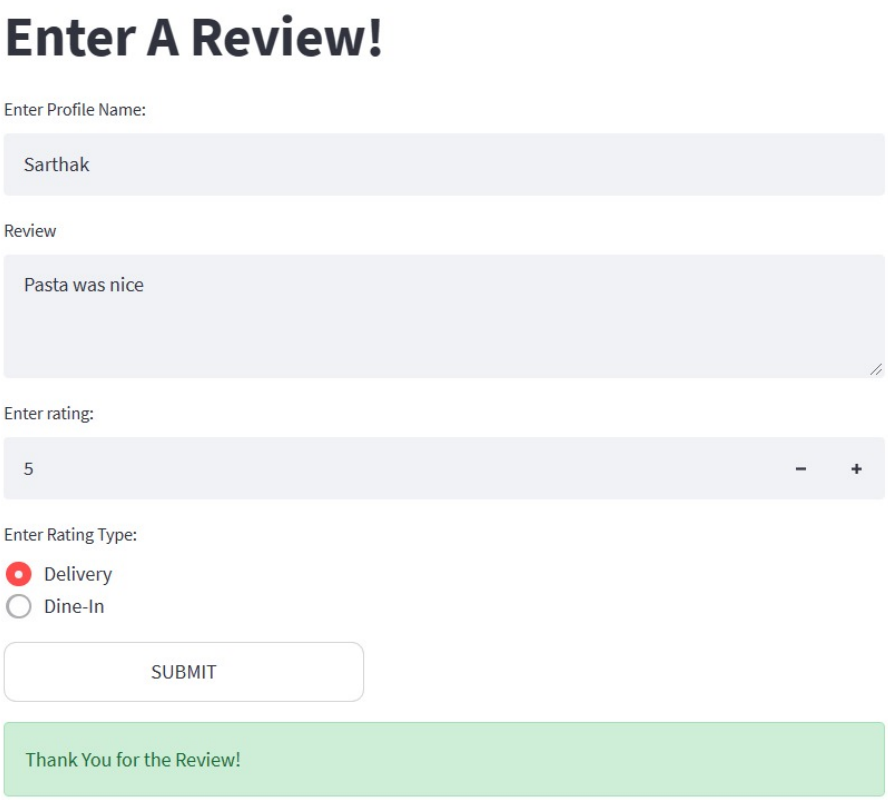
// THIS COMMAND IS USED TO RETRIEVE RESTAURANT'S MENU THAT HAS BEEN SELECTED IN THE COMBO BOX.

REVIEW AND RATINGS PAGE


```
mycursor.execute("SELECT * FROM Ratings WHERE
restro_id="+str(restaurants[restro_id_selected][0]))
```

// THIS COMMAND IS USED TO RETRIEVE RESTAURANT'S MOST RECENT RATINGS AND REVIEWS

ENTERING NEW REVIEWS FOR A RESTAURANT



--PROCEDURE IS USED HERE TO INSERT VALUES INTO THE REVIEW TABLE

mycursor.execute('''Create PROCEDURE insert_reviewinfo(IN p_restro_id int, IN p_review varchar(2000), IN p_profile_name Varchar(200), IN p_delivery_rating DOUBLE, IN p_dine_in_rating DOUBLE)

BEGIN

insert into Ratings(restro_id, review, profile_name, delivery_rating, dine_in_rating) values (p_restro_id, p_review, p_profile_name, p_delivery_rating, p_dine_in_rating);

END

''')

--TRIGGER CREATED TO DISPLAY INSERTION OF VALUE IN TABLE

mycursor.execute('''CREATE TRIGGER InserReviewItem

AFTER INSERT

ON RATINGS FOR EACH ROW

SELECT 'Your for the Review!'

''')

AFTER VALUES ARE INSERTED IN THE REVIEW TABLE

Reviews & Ratings - Hadiqa

Overall Rating:- 4.3

Most Recent Reviews:

	Description	Delivery Ratings	Dine-In Ratings
Parvathi Nair		1.0	
Ankita Kakati	Name was misleading. What…	4.0	
Saanika	Didnxe2x80x99t taste that g…		2.0
Srishti Kaushal			3.0
Simran Arora			2.0
Sarthak	Pasta was nice	5.0	

--AS IT CAN BE SEEN HERE THE VALUE THAT WAS TAKEN AS INPUT IS NOW ADDED TO THE REVIEW TABLE

WHAT WE LEARNT

By doing this project we learnt to implement SQL databases in real life instances while developing applications having real-world impact. During this project we also learnt implementation of SQL queries using python. Also during our project we realized the differences in syntax between the various SQL languages like when implementing triggers in MYSQL we found that it did not support the usage of dbms_output instead we had to use select in order to display an output. While developing this application we also explored various features present in streamlit to develop web applications. Streamlit is an open-source application originally developed for data science and machine learning teams to deploy their projects with an user interface but now it has had major upgrades to support development of web applications using python.