**Restaurant Ordering/Rating System**

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**Done by**

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**Class 12 F1 February 2023**

**Bonafide Certificate**

(will be given by teachers–common for all)

**Acknowledgements**

This project would not have been possible without the help of my computer science teacher, Mr. Praveen Venkatachari, who guided us at every step of our project. I would like to thank my teammate who worked tirelessly with me to bring this project to life. Finally, I would like to thank the school management who gave us the wonderful opportunity to work on this project and provided us with the necessary resources to complete this project.

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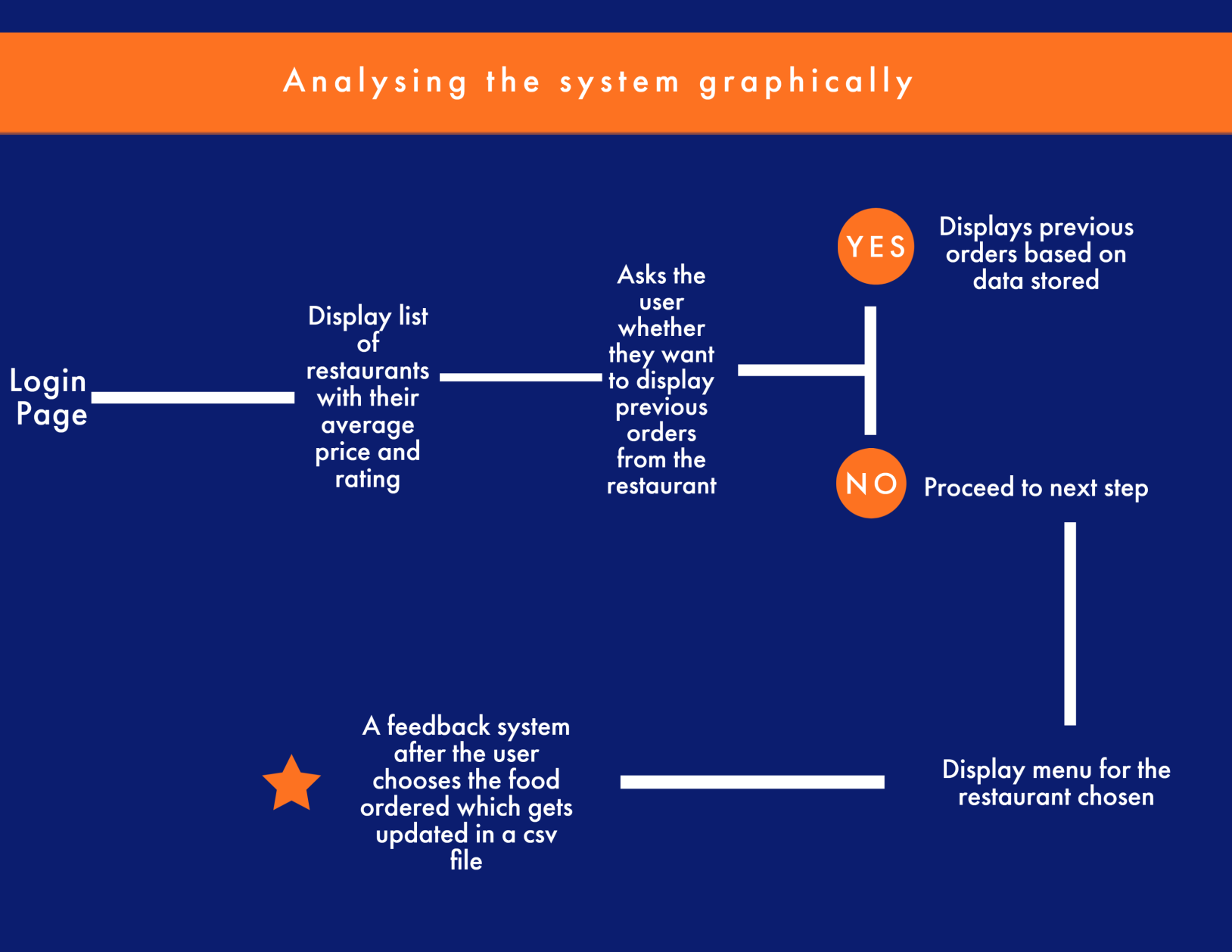
**Introduction**

What is one common thing every human shares? Food. Food is a universal language and necessity for the human race to survive. An average adult consumes about 2 kilograms of food and if we multiply that by 8 billion, we can say that around 16 billion kilograms of food are consumed each and every day. However, preparing and cooking food is not an easy task. It takes long hours and tedious preparation for someone to make a meal that will get consumed in under half an hour. People saw this task of cooking a meal as a nuisance. This however gave birth to the restaurant and food service industry. People started paying someone else to cook food which would be consumed by them shortly. Up till the 20th century this was mainly done in restaurants. A person had to go to a restaurant and physically order the food for consumption. After analyzing the problem further, they came up with the idea of delivery systems. A person could just send a message or call the restaurant and place the order which would then be prepared and delivered right to their doorstep. This was huge as someone who has just come home from a long day of work, or someone who feels tired or unmotivated would prefer to relax at home and enjoy a cooked meal delivered right to them rather than making their own food. This system was a huge success. But as time passed we could see some of the problems with the same. This process of calling and placing your orders had a few downsides. Firstly, multiple people are not able to call the restaurant and place an order at the same time. Therefore a person has to wait until the receiver is free to place their order. Secondly, this system requires a human interface at the receivers end to receive and note these orders down and pass it on to the chefs. This system hence allowed for human error to take place. A busy day might entail hundreds of orders, each one different from the former. It is a tedious job to keep track of these orders and note each one of them correctly. In an age of technological revelation and digitalization, the people get busier and these new technological devices and applications make lives easier. The On set of the 21th century has brought about many changes in our lifestyle and most of these have been for the better, making our lives much easier. After analyzing the problem with the current delivery system, people started to make online websites and applications where a person could easily choose a restaurant, pick their favorite dishes and these will be delivered to their doorstep within minutes. Everyone nowadays has phones and computers to access the internet and place an order. This was the coming of a new age of digital food service. This system was perfect, It had no human interaction so the room was error was very minimal. A person is able to clearly see what their options are and choose from a wide variety of them. And best of all, it requires absolutely minimal effort, just 3 clicks and their food is on the way. We saw the advantages that this system has and hence this was the inspiration behind our application. By removing unnecessary human intervention at every turn. We have made the process of having food delivered from restaurants much easier and a stress free task that anyone can do anywhere with the press of a few buttons.

**Objective and Scope**

The main objective of our product was to improve quality of life. We want to make the task of enjoying an exquisite meal at home something one can do with little to no effort. Our project gives users the freedom of choice. They are allowed to choose from a wide variety of their favorite restaurants on the go. Our secondary objective was to reduce the number of mediators between the person ordering the food and the chef that prepares it. This allows for minimal error and loss of information compared to when there are multiple mediators like the waiter, call receiver etc. Using our application, the orders would ideally appear on a small screen that was set-up in the restaurant kitchen to which the order was placed. This would then be noted by the chef who prepares the meal and sends it out for dispatch, where one of our own certified delivery men would pick up the order and deliver it to the users location. Our project has a lot of potential to be developed into a massive system like an online retailer. Currently we are partnered with restaurants and they are our main partners. However we would like to partner with ideally every restaurant in our city and slowly expand into other cities too . We can also start an online grocery retailing section of our app by partnering with local supermarkets and stores.

**System Design**



**List of Datasets and Storage Units**

**Files**

|  |  |  |
| --- | --- | --- |
| **Name** | **Type** | **Purpose** |
| userdata.dat | Binary File | Used to store user  info(Username and  password) |
| data.csv | CSV File | Contains restaurant data  (Restaurant Name,Menu) |
| order.csv | CSV File | Contains real time order  data of user |
| rating.csv | CSV File | Contains user input  restaurant rating |
| ratingavg.csv | CSV File | Contains average rating  for each restaurant |
| restloc.csv | CSV File | Contains the restaurant name and their respective locations in Chennai |

**List of Global Variables and Functions**

**Global Variables**

|  |  |
| --- | --- |
| Global Variables | Purpose |
| restdict | Dictionary containing data of all  restaurants |
| phoneno | Contains the phone number of the user |
| ratingdict | Dictionary containing the rating of respective restaurants |
| restchoice | Contains the name of the restaurant  chosen by the user |
| averrest | Contains the average price of each restaurant |
| cart | Contains the list of food ordered by  the user |
| ratelist | Contains the ratings of each  restaurant |

**User Defined Functions**

|  |  |
| --- | --- |
| User Defined Functions | Purpose |
| entersite() | Function for login/sign up |
| getdata() | Function to get data from data.csv file |
| getrestloc() | Function to get the restaurant location |
| averrestau(restdict) | Function to get the average price of each restaurant |
| dispavg(averrest, restdict, getrestloc()) | Function to get the data for the restaurant which the user chose. |
| addtocart(restdict) | Function to get the order of the user |
| viewcart(cart) | Function to give the bill based on the order of the user |
| ratingscreate() | Function to create a file called ratefile which contains empty ratings in a particular format and provides rating in  list format |
| ratingsavg() | To write the rating provided by the user  to ratings.csv |

**Module Functions**

|  |  |  |
| --- | --- | --- |
| Module | Function | Purpose |
|  |  |  |
|  |  |  |
|  |  |  |

**Source Code**

(Code should be well documented.

Use Courier New, font size 12, 1.5 line spacing, black and white alone.)

**Sample Output**

( Screenshots demonstrating all the options in your project.)

**Challenges, Limitations and the Future**

Challenges:

Limitations:

* No limit to quantity of food that the user can purchase
* Unable to predict delivery time as that would require gps integration
* Limited Menu items and same menu throughout the day [menu doesn’t change for breakfast, lunch or dinner]
* No special offers or deals currently

To overcome these limitations we would ideally like to implement a cloud based server user interface where the restaurateur can update their menus and items based on real time. We would also like to add an option where someone could duplicate their previous order and then make changes to that. Partnering with more up and coming restaurants and local cafes to increase the number of options that the user has. We would also like to add a maximum deliverable distance threshold as some restaurants will not be able to deliver high quality food past a specific distance. Adding city based restaurant list since different cities and localities has different restaurants.

**Bibliography**

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