

Screening Assignment

Understanding of Problem statement:

We need to design an application for a restaurant from where the user can order food items.

Breaking down the Problem Statement:

1. The user can choose from variety of Food Options(Chinese, Indian, Continental).
2. Corresponding Menu Items will be shown to user.
3. Now the user can see all those food Items, can filter those based on whether veg or non veg
4. User can select multiple items and place a order.
5. This order is then goes to the Kitchen (dashboard), The chef or manager can see the order, and assign a waiter to it, based on the waiter availability.
6. A preparation time is added in the order.
7. The order can be rejected if their are not enough ingredients or if chef doesnt want to entertain the order.
8. When a user places a order, its name, mobile number, table number and mode of payment are getting filled by the UI.
9. A database of waiter(staff user) is maintained in order to keep track of their availability and the track of which waiter is handling which order.
10. Once the order is placed, its get completed then can be rejected by the customer if something in food or it is raw or spoiled.

There would be three sections for it.

1. The user Section(As of now we are keeping this open ended, and just like walk in, you can open our webapp and can place order, no need to signup or login).
2. The staff user Section(A record of waiters)
3. The food items(A record of all the food items and their receipe and description)

Models:

FoodCategory

Select food category to change

Action: 0 of 3 selected

- ☐ NAME
- ☐ Continental
- ☐ Chinese
- ☐ Indian

3 food categorys

MenuItem

Home > Menu > Menu items

Select menu item to change

Action: 0 of 12 selected

<input type="checkbox"/>	NAME	CATEGORY	DESCRIPTION	AVAILABLE	PRICE	IS VEG	QUANTITY
<input type="checkbox"/>	Eggy Bread Blt	Continental	BLT is a popular British tea time sandwich which stands for bacon, lettuce and tomatoes.	✔	209.99	✔	12
<input type="checkbox"/>	Paneer Steak	Continental	pan fried cottage cheese (paneer) patties baked with cheese and tomatoes.	✔	199.98	✔	2
<input type="checkbox"/>	Chicken & Cheese Salad	Continental	It's as tasty as it can get; a sparkling salad with tender chicken breasts and cheese tossed and mixed in salt, pepper and a generous amount of mayonnaise.	✔	120.00	✔	2
<input type="checkbox"/>	Corn & Cauliflower Soup	Continental	A gorgeous, thick and creamy soup native to the corn producing countries this will definitely make you winter delicious, comfortable and warm	✔	220.98	✔	1
<input type="checkbox"/>	Spring Rolls	Chinese	Little munchies to prepare at home for a high tea menu or just a party starter, serve with a tangy dip.	✔	222.00	✔	2
<input type="checkbox"/>	Quick Noodles	Chinese	Here is a noodles recipe that is super quick and easy to prepare at home. Just bung in all your favourite veggies and create a masterpiece of your own.	✔	150.00	✔	2
<input type="checkbox"/>	Hot and Sour Soup	Chinese	soup with a spicy and sour broth. It is made with the goodness of mushrooms, cabbage, carrot and a spicy twist of red peppers or white pepper and sour with vinegar.	✔	79.96	✔	-2
<input type="checkbox"/>	Dim Sums	Chinese	One of the most loves street food from the north east, widely popular across northern India now comes to your kitchen! Small bite-sized rounds stuffed with veggies or meat.	✔	180.00	✖	2
<input type="checkbox"/>	Palak paneer	Indian	Spinach curry with fresh cheese.	✔	100.00	✔	-11
<input type="checkbox"/>	Chana masala	Indian	Chickpea stew.	✔	9.98	✔	2
<input type="checkbox"/>	Butter chicken	Indian	Perfect Indian chicken dish	✔	150.00	✖	0
<input type="checkbox"/>	Aloo gobi	Indian	Crisp golden potatoes and cauliflower.	✔	100.00	✔	2

ADD MENU ITEM +

FILTER

By category

All

Indian

Chinese

Continental

By is veg

All

Yes

No

By available

All

Yes

No

12 menu items

Ingridients

[Home](#) > [Menu](#) > Ingridientss

Select ingridients to change

Action: ----- Go 0 of 5 selected

<input type="checkbox"/>	NAME	AVAILABLE	QUANTITY
<input type="checkbox"/>	bread	✔	2
<input type="checkbox"/>	peas	✔	2
<input type="checkbox"/>	corn	✔	2
<input type="checkbox"/>	Chicken	✔	2
<input type="checkbox"/>	Butter	✔	2

5 ingridientss

FILTER

By available

All

Yes

No

ADD INGREDIENTS +

Select orders to change

Action: ----- Go 0 of 2 selected

<input type="checkbox"/>	CUSTOMER NAME	MOBILE	TABLE NUM	IS ACCEPTED	TOTAL	PAYMENT METHOD	DELIVERY BOY	PREP TIME
<input type="checkbox"/>	Ramu	9898989898	2	✔	122	UPI	chintu	30m
<input type="checkbox"/>	shyamial	423423525	1	✔	1234	UPI	chintu	30m

2 orderss

ADD ORDERS +

Menuitem API Response

Django REST framework

admin

Menu Item

Menu Item

Options GET

List all Menuitem, or create a new Menuitem.

GET /menu/api/menu_item/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
[
  {
    "name": "Aloo gobi",
    "category": 1,
    "description": "Crisp golden potatoes and cauliflower.",
    "available": true,
    "price": "100.00",
    "is_veg": true,
    "quantity": 2,
    "reciepe": {}
  },
  {
    "name": "Butter chicken",
    "category": 1,
    "description": "Perfect Indian chicken dish",
    "available": true,
    "price": "150.00",
    "is_veg": false,
    "quantity": 0,
    "reciepe": {}
  }
]
```

Ingredients API Response

Ingridients

Ingridients

OPTIONS

GET ▾

List all Ingridients, or create a new Ingridients.

GET /menu/api/ingridients/

HTTP 200 OK

Allow: GET, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
[
  {
    "name": "Butter",
    "description": "This is butter",
    "available": true,
    "quantity": 2
  },
  {
    "name": "Chicken",
    "description": "this is chicken",
    "available": true,
    "quantity": 2
  },
  {
    "name": "corn",
    "description": "corn",
    "available": true,
    "quantity": 2
  },
]
```

Order API Response

Orders

Orders

OPTIONS

GET ▾

List all Orders, or create a new Orders.

GET /menu/api/order/

HTTP 200 OK

Allow: GET, POST, HEAD, OPTIONS

Content-Type: application/json

Vary: Accept

```
[
  {
    "customer_name": "shyamlal",
    "mobile": "423423525",
    "table_num": 1,
    "is_accepted": true,
    "total": 1234,
    "payment_method": "upi",
    "delievery_boy": 1,
    "prep_time": "30m"
  },
  {
    "customer_name": "Ramu",
    "mobile": "9898989898",
    "table_num": 2,
    "is_accepted": true,
    "total": 122,
    "payment_method": "upi",
    "delievery_boy": 1,
    "prep_time": "30m"
  }
]
```

Staff User API Response

The screenshot shows the Django REST framework admin interface for the 'Staff User' endpoint. The header bar indicates 'Django REST framework' and the user 'admin'. The main content area is titled 'Staff User' and includes a description: 'List all StaffUser, or create a new StaffUser.' There are two buttons: 'OPTIONS' and 'GET'. Below the buttons, the selected method is 'GET /staff/api/staff_user/'. The response is displayed in a light blue box, showing the HTTP status '200 OK', allowed methods 'GET, POST, HEAD, OPTIONS', content type 'application/json', and a JSON array of staff user data.

```
HTTP 200 OK
Allow: GET, POST, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

[
  {
    "native_name": "chintu",
    "email": "arvind@gmail.com",
    "first_name": "mac",
    "last_name": "d",
    "phone_no": "999999999",
    "busy": true,
    "address": "fbed"
  }
]
```

All these API's have been made with the Rest Framework and can be integrated with any frontend Framework, independent on any language.

How are we maintaining the Inventory for MenuItems availability from ingredients???

To tackle this problem I have used an attribute as recipe in the MenuItems, it's keys are the Ingredients and we can easily update the Inventory or if we are able to process the order using it.

How are we managing the right delivery???

Each order is associated with the customer name and table number, and a waiter, this will ensure the correct delivery of the order to right person.