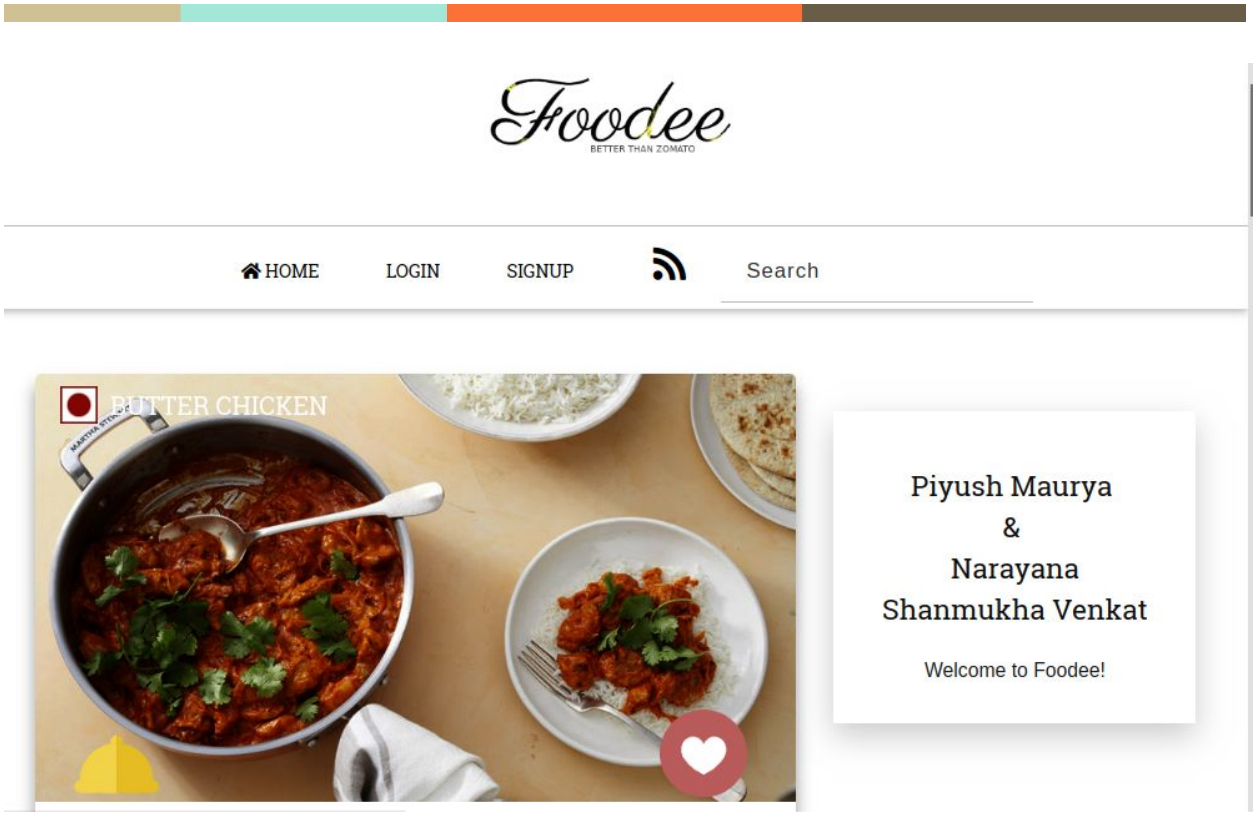

Foodee

A restaurant management Django app

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Introduction

Foodee is a clever django powered website that helps managing customers and also the restaurant to track orders. Customers can create an account and manage their orders and also explore different dishes of the restaurant. There is also a blog published by the chefs of the restaurant. You can like a dish and put it into your favourite dishes. You can also read and comment on the blog just like any other food blog. You can be a premium customer by ordering in our restaurant more than 10 times.

To stay tuned for new updates about dishes and new posts in our blog, you can subscribe to our RSS feed!

Requirements Specification

asn1crypto==0.24.0

certifi==2018.10.15

cffi==1.11.5

chardet==3.0.4

cryptography==2.3.1

Django==2.1.2

geoip2==2.9.0

idna==2.7

maxminddb==1.4.1

mysqlclient==1.3.13

Pillow==5.3.0

pycparser==2.19

PyMySQL==0.9.2

pytz==2018.5

requests==2.20.1

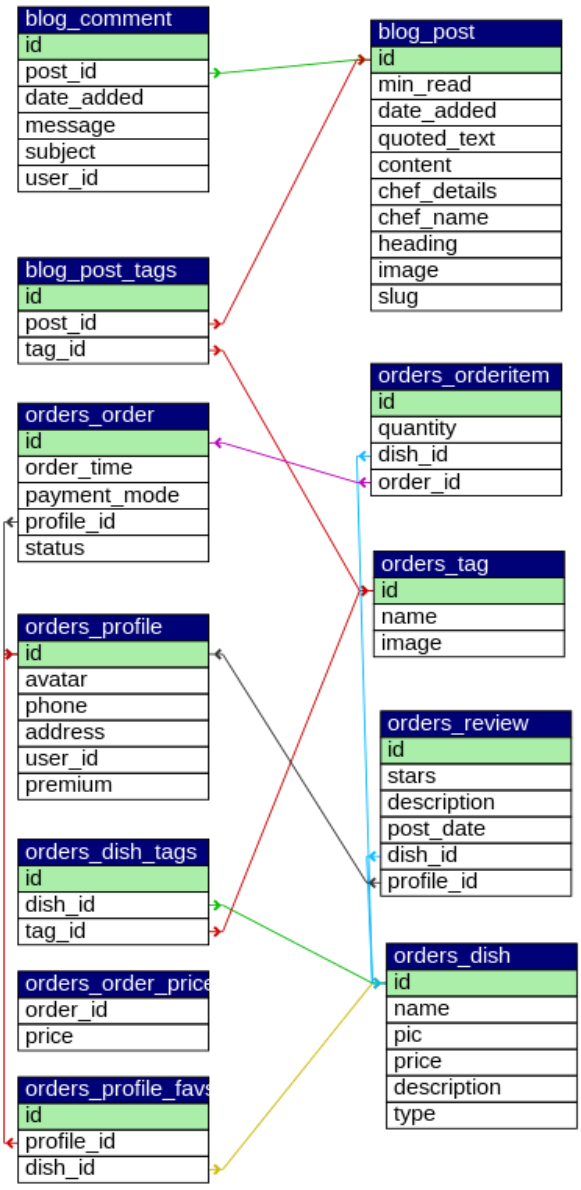
six==1.11.0

urllib3==1.24.1

uWSGI==2.0.17.1

Database Design

1. Relational Schemas



2. Database Constraints

Table	Constraints
blog_post	PRIMARY KEY id
blog_comments	PRIMARY KEY id FOREIGN KEY post_id
blog_post_tags	PRIMARY KEY id FOREIGN KEY post_id FOREIGN KEY tag_id
orders_profile	PRIMARY KEY id
orders_order	PRIMARY KEY id FOREIGN KEY profile_id
orders_dish_tags	PRIMARY KEY id FOREIGN KEY dish_id FOREIGN KEY tag_id
orders_orderitem	PRIMARY KEY id FOREIGN KEY dish_id FOREIGN KEY order_id
orders_dish	PRIMARY KEY id
orders_review	PRIMARY KEY id FOREIGN KEY profile_id FOREIGN KEY dish_id
orders_tag	PRIMARY KEY id
orders_profile_favs	PRIMARY KEY id FOREIGN KEY profile_id FOREIGN KEY dish_id

3. Triggers

We have used two triggers in the the database:

a. First trigger is used for giving discount to a customer whenever an order of Rs. 1000 or more is made.

b. Second trigger is used to store the phone number of a user whenever he changes the phone number. In this way we can have a track of all phone numbers that have been used to register at any point of time. This helps us promote our app.

Project Structure

manage.py

1. foodee
   a. middleware/ usertracking.py
   b. urls.py
   c. settings.py
   d. wsgi.py
   e. views.py

2. orders
   a. forms.py
   b. admin.py
   c. tests.py
   d. models.py
   e. urls.py
   f. views.py
   g. migrations
   h. apps.py
   i. templatetags/ orders_tags.py

3. static
   a. post
   b. profile
   c. plugins
   d. css
   e. js
   f. icons
   g. tags
   h. dish
   i. images

4. templates

5. GeoLite

6. blog
   a. feeds.py
   b. admin.py
   c. tests.py
   d. models.py
   e. urls.py
   f. views.py
   g. migrations
   h. apps.py

Functionalities

We have used three apps in the project to divide the functionalities.

1. foodee : This is the main app which is used to manage user registration and login as well as show the user profile. It also includes the homepage where all the functionalities are combined at one place.

   Different views used in this app are:

   a. home:

      It has a slideshow of the most popular dishes as well as 5 recent posts in the blog and there is a sidebar which shows various dish categories, tags and blog posts. Thus various sections of the website can be accessed through this page

   b. signup:

      It is used for registering the user before he can fully use the site

   c. login:

      It is used for logging in the user so that he can manage orders or access the cart and favorite dishes.

   d. profile:

      It shows the user profile page with all his information and his favorite dishes. The user can add dishes to the cart direct from these favorites.

   e. sql:

      This section can be accessed only by the admin. It can be used to test raw sql queries to test the database and fetch content from the database direct from the site.

2. blog : This app is used to create and show latest food related posts on the website. It has comment section to allow users to express their views on the posts.

   Different views used in this app are:

   a. home: It shows recent posts in the blog and links to access the posts.
   b. post: It shows the complete post with chef details and comments section which can be used by the users to express their views and critics.

3. orders: This app is used to search food items, add them to the cart, review the the dishes and finalise the order. User can also add dishes to their favorites for quick access.

   Different views used in this app are:

   a. search:

      This view is used for searching various dishes based on their name, tags, description.

   b. dish:

      It shows details about a dish as well as it's price and image. You can even find the vegetarian - non vegetarian mark on the top left corner of the image.

   c. cart:

      This lets the customer know what dishes are present in the cart and also lets the user change the quantity. The page is dynamic , ie all the changes made in quantities and total price of the cart would reflect in real time without reloading the page. When there are no items in the cart , a message "Cart is Empty!" is displayed. There is a confirm order button at the bottom of the cart page.

   d. myOrders:

      On this page the customer can see all of his previous orders details like order Items (what all the items are present in the cart), quantities of the items and price of the order when the customer finalises the cart.

Mappings

The following tables show the url mappings of all the views in the apps:

1. foodee

URL	View / other app urls
/	home
admin/	admin.site.urls
accounts/	django.contrib.auth.urls
signup/	signup
profile/	profile
sql/	sql
blog/	blog.urls
orders/	orders.urls

2. orders

URL	View / other app urls
search/	search
dish/<int:dish_id>	dish
dish/<str:dish_name>	dish
cart/	cart
my_orders/	myOrders

3. blog

URL	View / other app urls
/	home
post/	post
feed/	LatestPostsFeed()

Middleware

Middleware is a framework of hooks into Django's request/response processing. It's a light, low-level "plugin" system for globally altering Django's input or output.

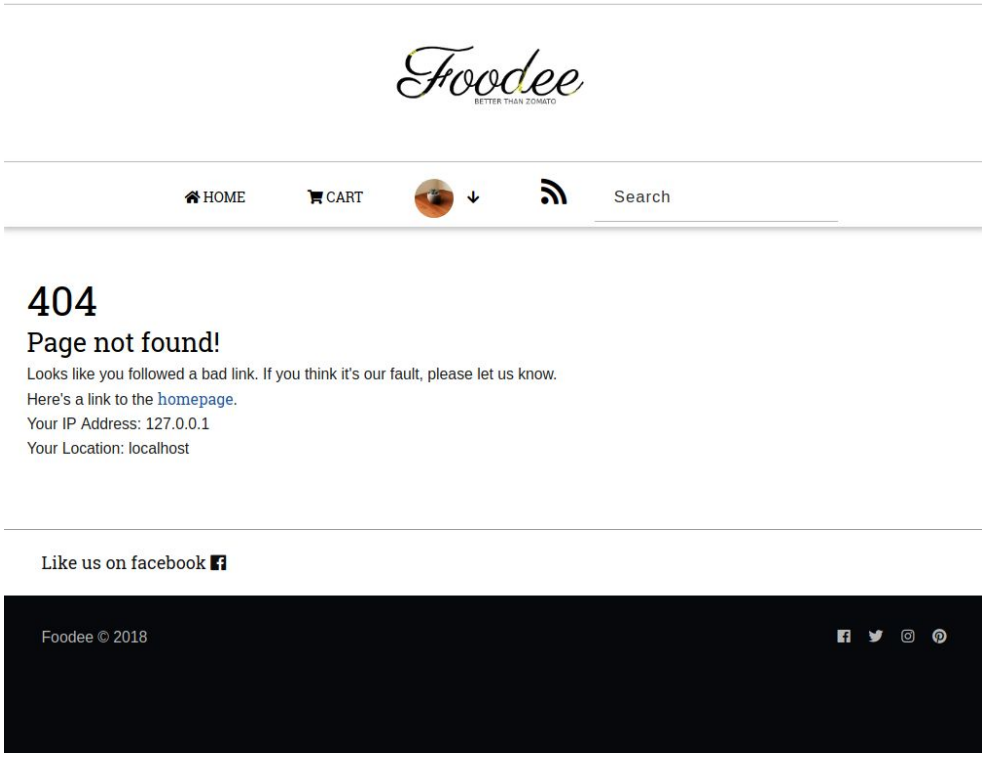
We implemented 2 custom middleware classes

1. Invalid URL check middleware:

   We don't want the customer to access any url for security reasons and also for the sake of clarity

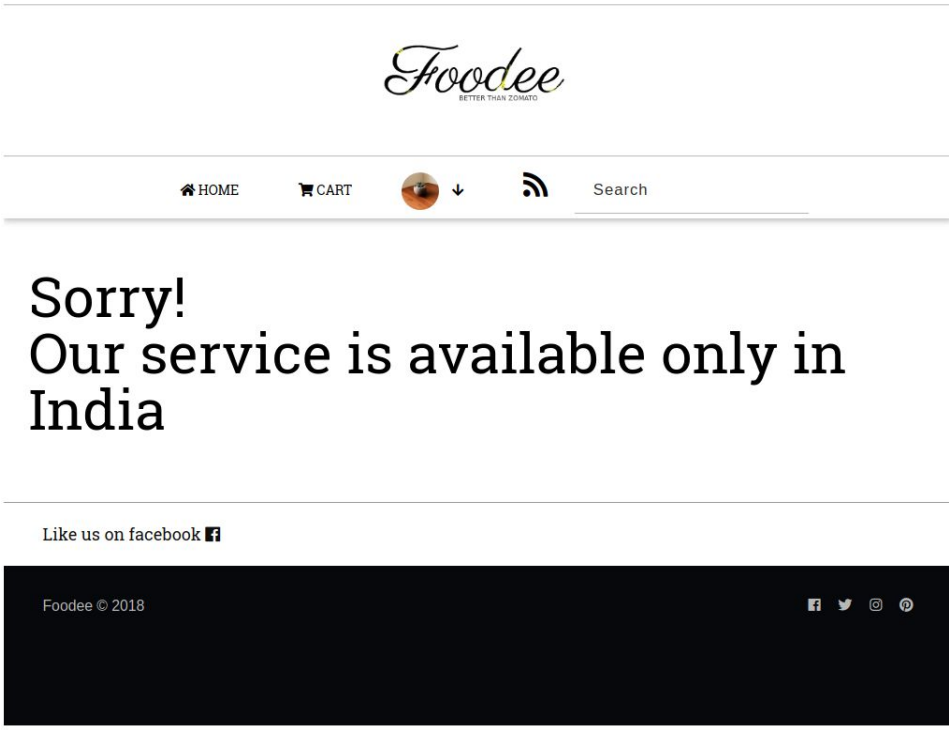
   We achieve this by accessing the status code of the request. When the status code is 404 then we will display him a message that the url doesn't exist .

   When the status code is 500, we display a message that there is an error from the server side



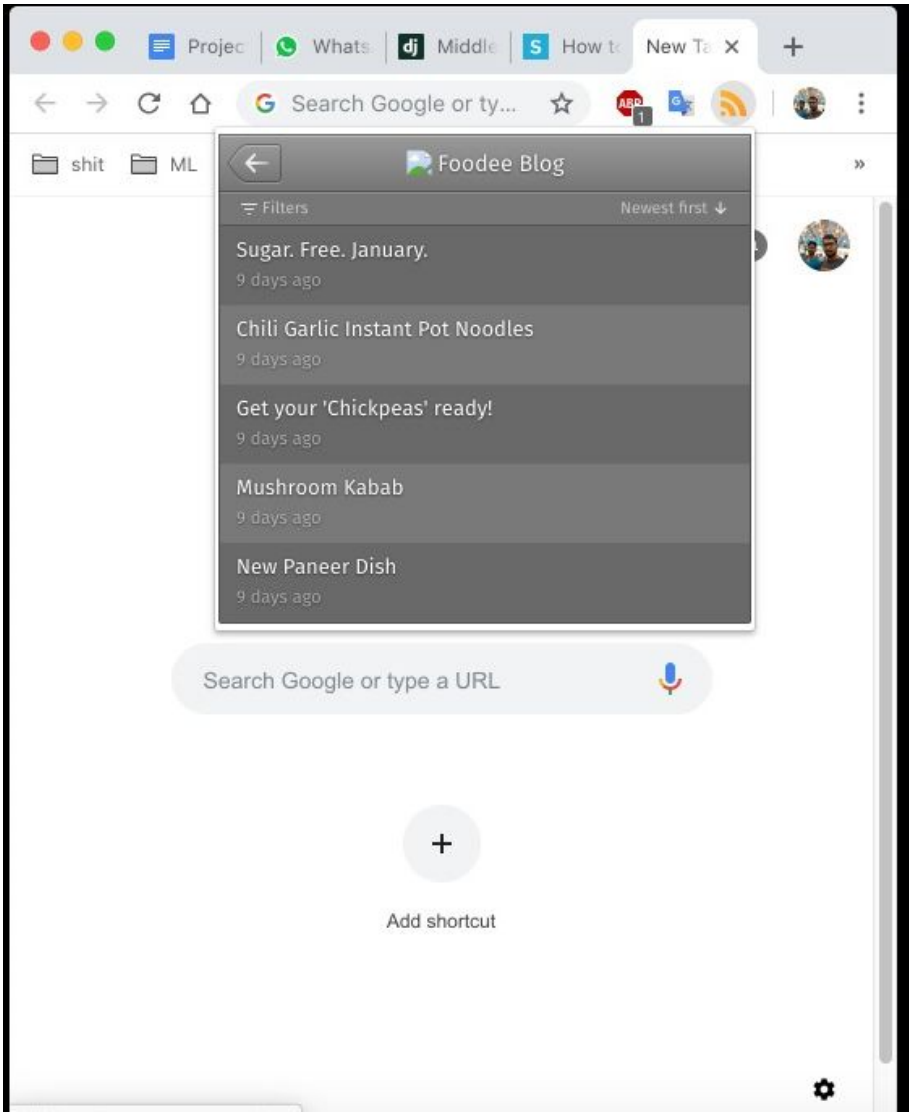
2. Location check middleware :

   To make sure every order we accept is from India, we access the country of customer by using a python module GeoIP2 . This module uses a database stored on our server to track the country of the user based on his IP address. If the user accesses the website from another country, say Finland, He will be displayed with a message that orders can be accepted only from India.



Syndication

Django comes with a high-level syndication-feed-generating framework that makes creating RSS and Atom feeds easy. To create any syndication feed, all you have to do is write a short Python class. You can create as many feeds as you want. We added a button on the top right of our webpage, on clicking it the customer will get subscribed to our rss feeds.



References:

We used the following resources during the development of our website. We find them very useful and would like to give them the credits for the development of this website!

Official Python Documentation

Official Django Documentation

GeoIP2 docs

Final Words:

Foodee believes that open source is good for everyone. By being open and freely available, it enables and encourages collaboration and the development.

We invite you to help us improve our project to make it better and more reliable.

You can always find our project repository here.