

Code Inspection

Team Squad8

Models.py:

```
from django.contrib.auth.models import AbstractUser
from django.db import models

# Create your models here.
class PatientModel(AbstractUser):
    phone = models.CharField(max_length=15, blank=True, null=True)

    LOGIN_CHOICES = (
        ('patient', 'Patient'),
        ('doctor', 'Doctor'),
        ('staff', 'Staff'),
    )
    login_type = models.CharField(max_length=10, choices=LOGIN_CHOICES, default='patient')
    security_question = models.CharField(max_length=86, blank=True, null=True)
```

Here, the above code creates a Django Patient Model to handle the login requests, which helps create tables in the MySQL server to handle signup/login authorizations.

Views.py:

```
from django.shortcuts import render, redirect
from django.shortcuts import render
from django.http import HttpResponseRedirect
from django.contrib.auth import authenticate, login
from .forms import SignupForm, LoginForm, ResetPasswordForm
from django.contrib.auth import get_user_model
from django.contrib.auth import logout

def home(request):
    return render(request, "index.html")

def user_login(request):
    if request.method == 'POST': # django login forms use POST method
        form = LoginForm(request.POST) # send form to server

        if form.is_valid():
            # clean inputs
            username = form.cleaned_data['username']
            password = form.cleaned_data['password']

            user = authenticate(request, username=username, password=password)
            if user is not None:
                login(request, user)
                return redirect(home) # redirect user to home page after user is logged in
            else:
                form = LoginForm()

    return render(request, "login.html")

def reset_password(request):
    if request.method == 'POST':
        form = ResetPasswordForm(request.POST)
        if form.is_valid():
            username = form.cleaned_data['username']
            new_password = form.cleaned_data['new_password']
            security_question = form.cleaned_data['security_question']
```

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```
        user = get_user_model().objects.get(username=username)
        saved_security_question = getattr(user, 'security_question')
        if saved_security_question == security_question:
            user.set_password(new_password)
            user.save()
            return redirect(home)
        else:
            form = ResetPasswordForm()
    return render(request, "reset_password.html")

def signup(request):
    if request.method == 'POST':
        form = SignupForm(request.POST)
        if form.is_valid():
            user = form.save(commit=False)
            user.set_password(form.cleaned_data['password'])
            user.save()
            return redirect('/')
        else:
            form = SignupForm()
    return render(request, 'signup.html', {'form': form})

def about_us(request):
    developers = [
        {'name': 'Kalyan Cheerla', 'bio': 'Project Manager', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Bhavani Rachakatla', 'bio': 'Design and Testing Lead', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Yasmeen Haleem', 'bio': 'Requirements and Documentation Lead', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Demir Altay', 'bio': 'Implementation Lead(backend)', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Vidhi Bhatt', 'bio': 'Implementation Lead(front end)', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Emmie Abels', 'bio': 'Implementation Lead(front end)', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Manushree Buyya', 'bio': 'Demo and Presentation Lead', 'image': 'images/ProfilePic.jpg'},
        {'name': 'Pravallika Bollavaram', 'bio': 'Configuration Management Lead', 'image': 'images/ProfilePic.jpg'},
    ]
    return render(request, "about_us.html", {'developers': developers})
```

```
def contact_us(request):
    return render(request, "contact_us.html")

def contact_us_form_submit(request):
    if request.method == 'POST':
        # Need to handle the form submission logic here
        # For now, just redirecting to the same contact us page
        return redirect('contact_us')
    return render(request, 'contact_us.html')

def signout(request):
    logout(request)
    return redirect(home)
```

These are one of the important functions which handle the HTTP requests, as each endpoint that is opened should have a functionality to handle the GET requests and send the respective HTML page for rendering the website. These also have the functionality to handle the POST requests on some endpoints which request user data. Some of the prominent functions in here are `user_login()` and `signup()`.

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Forms.py:

```
from django import forms
from .models import PatientModel

class SignupForm(forms.ModelForm):
    password = forms.CharField(widget=forms.PasswordInput)
    password2 = forms.CharField(label='Confirm Password', widget=forms.PasswordInput)
    login_type = forms.ChoiceField(choices=PatientModel.LOGIN_CHOICES, widget=forms.RadioSelect, initial='both')
    security_question = forms.CharField()
    class Meta:
        model = PatientModel
        fields = ('username', 'first_name', 'last_name', 'email', 'phone', 'security_question', 'password')

    def clean_password2(self):
        cd = self.cleaned_data
        if cd['password'] != cd['password2']:
            raise forms.ValidationError('Passwords don\'t match.')
        return cd['password2']

class LoginForm(forms.Form):
    username = forms.CharField()
    password = forms.CharField() #needs proper password/auth

class ResetPasswordForm(forms.Form):
    username = forms.CharField()
    security_question = forms.CharField()
    new_password = forms.CharField()
```

The classes presented here provide a way to handle the POST requests data that need to be handled during the form submissions like signup, login, and reset password.

Urls.py:

```
from django.urls import path
from . import views

urlpatterns = [
    path("", views.home, name="home"),
    path("home/", views.home, name="home"),
    path("signup/", views.signup, name="signup"),
    path("login/", views.user_login, name="user_login"),
    path("about/", views.about_us, name="about_us"),
    path("contact/", views.contact_us, name="contact_us"),
    path('contact/submit/', views.contact_us_form_submit, name='contact_us_form_submit'),
    path("signout/", views.signout, name="signout"),
    path("reset_password/", views.reset_password, name='reset_password')
]
```

Here, the code in urls.py provides outward links that a user can interact with our MedVoyage Web application. Some of the prominent ones are home/, login/ and signup/.

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Sign Up Page Code:

```
{% extends "base.html" %}

{% block content %}
<div class="container mx-auto">
  <h2 class="text-center">Sign-Up</h2>
  <form method="post">
    {% csrf_token %}

    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="id_username">Username:</label>
      <input type="text" name="username" class="form-control" id="id_username" placeholder="JohnDoe" required value="{{ form.username.value|default:'' }}">
      {% if form.username.errors %}
        <div class="alert alert-danger">
          {{ form.username.errors }}
        </div>
      {% endif %}
    </div>

    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="id_first_name">First Name:</label>
      <input type="text" name="first_name" class="form-control" id="id_first_name" placeholder="John" value="{{ form.first_name.value|default:'' }}">
      {% if form.first_name.errors %}
        <div class="alert alert-danger">
          {{ form.first_name.errors }}
        </div>
      {% endif %}
    </div>

    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="id_last_name">Last Name:</label>
      <input type="text" name="last_name" class="form-control" id="id_last_name" placeholder="Doe" value="{{ form.last_name.value|default:'' }}">
      {% if form.last_name.errors %}
        <div class="alert alert-danger">
          {{ form.last_name.errors }}
        </div>
      {% endif %}
    </div>
  </form>
</div>
```

```
    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="id_email">Email:</label>
      <input type="email" name="email" class="form-control" id="id_email" placeholder="John@email.com" required value="{{ form.email.value|default:'' }}">
      {% if form.email.errors %}
        <div class="alert alert-danger">
          {{ form.email.errors }}
        </div>
      {% endif %}
    </div>

    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="id_phone">Phone:</label>
      <input type="text" name="phone" class="form-control" id="id_phone" placeholder="555-555-5555" value="{{ form.phone.value|default:'' }}">
      {% if form.phone.errors %}
        <div class="alert alert-danger">
          {{ form.phone.errors }}
        </div>
      {% endif %}
    </div>

    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="security_question">Security Question:</label>
      <input type="text" name="security_question" class="form-control" id="security_question" placeholder="Enter what city you grew up in" value="{{ form.security_question.value|default:'' }}">
      {% if form.security_question.errors %}
        <div class="alert alert-danger">
          {{ form.security_question.errors }}
        </div>
      {% endif %}
    </div>

    <div class="form-group col-md-6 mx-auto mt-2">
      <label for="id_password">Password:</label>
      <input type="password" name="password" class="form-control" id="id_password" placeholder="Enter password" required>
      {% if form.password.errors %}
        <div class="alert alert-danger">
          {{ form.password.errors }}
        </div>
      {% endif %}
    </div>
```

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```
        </div>
    {% endif %}
</div>

<div class="form-group col-md-6 mx-auto mt-2">
    <label for="id_password2">Confirm Password:</label>
    <input type="password" name="password2" class="form-control col-md-8" id="id_password2" placeholder="Confirm password" required>
    {% if form.password2.errors %}
        <div class="alert alert-danger">
            {{ form.password2.errors }}
        </div>
    {% endif %}
</div>

<div class="form-group col-md-6 mx-auto mt-2">
    {{ form.login_type|safe }}
</div>

<div class="form-group col-md-6 mx-auto mt-2">
    <button type="submit" class="btn btn-primary col-md-3 mx-auto">Sign-Up</button>
</div>

</form>
</div>
{% endblock %}
```

Above is the HTML code of our sign-up page with Django-templates (Jinja2) logical if and other conditional blocks used to update the page with errors during or after submission.

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Login Page Code:

```
{% extends 'base.html' %}

{% block title %}MedVoyage | Login{% endblock %}

{% block content %}
<div class="container">
  <div class="row justify-content-center align-items-center" style="height: 100vh;">
    <div class="col-md-6">
      <div class="card">
        <div class="card-body">
          <h2 class="card-title text-center">Login</h2>
          <form id="login-form" method="post">
            {% csrf_token %}
            <div class="form-group">
              <label for="id_username">Username</label>
              <input type="text" class="form-control form-control-lg mb-2" id="id_username" name="username" placeholder="JohnDoe">
            </div>

            <div>
              <label for="id_password">Password</label>
              <input type="password" class="form-control form-control-lg" id="id_password" name="password" placeholder="Enter your password">
            </div>

            <button type="submit" class="btn btn-primary btn-block text-center mt-2">Login</button>

            <div class="text-center">
              <a href="{% url 'signup' %}">Don't have an account? Sign Up Here</a>
            </div>
            <div class="text-center">
              <a href="{% url 'reset_password' %}">Forgot Password? Reset Here</a>
            </div>
          </form>
        </div>
      </div>
    </div>
  </div>
</div>
</div>
```

Above is the front-end code of our login page which contains the HTML, CSS, Bootstrap classes & so on.

Navigation Bar & Sign Out Code:

```
<!-- Navigation Bar -->
<nav class="navbar navbar-expand-lg navbar-light bg-light">
  <!-- Brand Logo and Name -->
  <a class="navbar-brand" href="{% url 'home' %}">
    {% load static %}
    
    MedVoyage
  </a>

  <!-- Toggler for Mobile Devices -->
  <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNav"
    aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>

  <div class="collapse navbar-collapse me-lg-3" id="navbarNav">
    <ul class="navbar-nav ms-lg-auto">
      <!-- About and Contact Links -->
      <li class="nav-item">
        <a class="nav-link" href="{% url 'about_us' %}">About Us</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="{% url 'contact_us' %}">Contact Us</a>
      </li>
      <!-- Login/Signup Button -->
      <li class="nav-item">
        <a href="{% url 'user_login' %}" class="nav-link fw-bold text-mv-green">Login/Signup</a>
      </li>
      <!-- Sign Out Button -->
      {% if user.is_authenticated %}
      <li class="nav-item">
        <a href="/signout" class="nav-link"> Sign Out</a>
      </li>
      {% endif %}
    </ul>
  </div>
</nav>
```

Above is the code for navigation bar frontend which was done to be mobile-friendly.

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Reset Password Code:

```
{% extends 'base.html' %}

{% block title %}MedVoyage | Login{% endblock %}

{% block content %}
<div class="container">
  <div class="row justify-content-center align-items-center" style="height: 100vh;">
    <div class="col-md-6">
      <div class="card">
        <div class="card-body">
          <h2 class="card-title text-center">Reset Password</h2>
          <form id="reset_password" method="post">
            {% csrf_token %}
            <div class="form-group">
              <label for="id_username">Username</label>
              <input type="text" class="form-control form-control-lg" id="id_username" name="username" placeholder="JohnDoe">
            </div>

            <div>
              <label for="id_password">New Password</label>
              <input type="password" class="form-control form-control-lg" id="id_password" name="new_password" placeholder="Enter your new password">
            </div>
            <div>
              <label for="id_security_question"> Security Question</label>
              <input type="text" class="form-control form-control-lg" id="id_security_question" name="security_question" placeholder="Enter your security question">
            </div>
            <button type="submit" class="btn btn-primary btn-block text-center">Reset</button>

            <div class="text-center">
              <a href="{% url 'signup' %}">Don't have an account? Sign Up Here</a>
            </div>
          </form>
        </div>
      </div>
    </div>
  </div>
</div>
{% endblock %}
```

Here you can see the front end of our reset password page which was done similarly as that of login page.

About Us Code:

```
{% extends 'base.html' %}

{% block title %}MedVoyage | About Us{% endblock %}

{% block content %}
<!-- About Us Intro -->
<section class="py-5">
  <div class="container text-center">
    <h1>About Us</h1>
    <p style="text-align: justify;">
      Looking for a hassle-free, efficient, and seamless healthcare access experience? Look no further than MedVoyage - the ultimate online appointment booking platform.
    </p>
  </div>
</section>

<!-- Developers Info -->
<section class="bg-light py-5">
  <div class="container">
    <h2 class="text-center mb-4">Meet the Developers</h2>
    <div class="row">
      <!-- Loop through developers -->
      {% for developer in developers %}
      <div class="col-md-4 mb-3">
        <div class="card h-100 border=0 shadow-sm">
          {% load static %}
          
          <div class="card-body text-center">
            <h3 class="card-title">{{ developer.name }}</h3>
            <p class="card-text">{{ developer.bio }}</p>
          </div>
        </div>
      </div>
      {% endfor %}
    </div>
  </div>
</section>
{% endblock %}
```

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The front-end of our about us page is shown above where you can see the details on about the team and further information on each individual involvement.

Contact Us Code:

```
{% extends 'base.html' %}

{% block title %}MedVoyage | Contact Us{% endblock %}

{% block content %}
<!-- Contact Us Section -->
<section class="bg-light py-5">
  <div class="container">
    <h2 class="text-center mb-4">Contact Us</h2>

    <!-- Contact Form -->
    <div class="row justify-content-center">
      <div class="col-md-8">
        <form action="{% url 'contact_us_form_submit' %}" method="post">
          {% csrf_token %}

          <!-- Name Field -->
          <div class="form-group">
            <label for="name">Name:</label>
            <input type="text" class="form-control" id="name" name="name" placeholder="Enter your name" required>
          </div>

          <!-- Email Field -->
          <div class="form-group">
            <label for="email">Email:</label>
            <input type="email" class="form-control" id="email" name="email" placeholder="Enter your email" required>
          </div>

          <!-- Message Field -->
          <div class="form-group">
            <label for="message">Message:</label>
            <textarea class="form-control" id="message" name="message" rows="4" placeholder="Your message here..." required></textarea>
          </div>

          <!-- Submit Button -->
          <div class="text-center">
            <button type="submit" class="btn btn-primary mt-3">Submit</button>
          </div>
        </form>
      </div>
    </div>

    <!-- Contact Info -->
    <div class="row mt-5">
      <div class="col-md-4 text-center">
        <i class="fa fa-phone fa-2x mb-3"></i>
        <h4>Phone</h4>
        <p>+123 456 7890</p>
      </div>
      <div class="col-md-4 text-center">
        <i class="fa fa-envelope fa-2x mb-3"></i>
        <h4>Email</h4>
        <p>contact@medvoyage.com</p>
      </div>
      <div class="col-md-4 text-center">
        <i class="fa fa-map-marker fa-2x mb-3"></i>
        <h4>Location</h4>
        <p>123 Street, Denton, United States</p>
      </div>
    </div>
  </div>
</section>
{% endblock %}
```

The above frontend logic i.e., contact us provides different ways a user can contact the MedVoyage team.

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Footer Code:

```
<footer class="bg-light text-center py-4" style="background-color: #D8BFD8; position: bottom; bottom: 0; width: 100%;">
  <p>&copy; MedVoyage</p>
</footer>
```

We have separated the footer.html into a separate file that can be easily modified and updated. And we include the code in here into the base.html that is being used as a base for all the HTML pages.

Base.html:

```
<html>
  <head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
          rel="stylesheet" integrity="sha384-EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztCQTWfspd3yD65VohhpUuComLASjC"
          crossorigin="anonymous">

    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.1/css/all.min.css">

    {% load static %}
    <link href={% static "css/main.css" %} rel="stylesheet"/>

    <title>{% block title %}MedVoyage Home{% endblock %}</title>
  </head>

  <body>
    {% include 'navbar.html' %}

    {% block content %} {% endblock %}

    {% include 'footer.html' %}

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
            integrity="sha384-MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"
            crossorigin="anonymous">
    </script>
  </body>
</html>
```

This is the base of our all-HTML pages that are being created, which is an important file from the frontend point of view.