

PRIVATE CHATTING APPLICATION

IN VIEWS.PY

```
from django.db.models.query import QuerySet
from django.http.response import HttpResponseRedirect
from django.shortcuts import render, redirect, get_object_or_404

from django.contrib import messages
from django.urls import reverse_lazy
from django.views import generic
from django.contrib.messages.views import SuccessMessageMixin
from django.views.generic import CreateView, DetailView, DeleteView, UpdateView, ListView

from django.contrib.auth import login, authenticate
from django.contrib.auth.forms import UserCreationForm
from django.http import JsonResponse
from django.db.models import Q
import datetime
from django.views.generic.base import TemplateView
from django.core.paginator import Paginator
#from reportlab.pdfgen import canvas
#from reportlab.lib.pagesizes import letter
#from reportlab.lib.pagesizes import landscape
#from reportlab.platypus import Image
import os
from django.conf import settings
from django.http import HttpResponse
#from django.template.loader import get_template
#from xhtml2pdf import pisa
#from django.contrib.staticfiles import finders
import calendar
from calendar import HTMLCalendar
from django.contrib.auth.decorators import login_required
import json,datetime
from django.core import serializers
from django.contrib.auth import get_user_model
from django.contrib.auth.models import User as UserModel
from DimosoApp.models import *

# Create your views here.
def base(response):
    #HII SIO YALAZIMA ILA KM UKITAKA KUWADISPLEIYA PIA HAO USERS KWENYE BASE.HTML
    FILE
    users = MyUser.objects.all().order_by('-id')
    context = {
        "users": "users"
    }
}
```



```

return render(response, 'DimosoApp/base.html', context)

@login_required
def home(request):
    User = get_user_model()
    users = MyUser.objects.all().order_by('-id')
    chats = {}
    if request.method == 'GET' and 'u' in request.GET:
        # chats = chatMessages.objects.filter(Q(user_from=request.user.id &
        user_to=request.GET['u']) | Q(user_from=request.GET['u'] & user_to=request.user.id))
        chats = chatMessages.objects.filter(Q(user_from=request.user.id, user_to=request.GET['u'])
        | Q(user_from=request.GET['u'], user_to=request.user.id))
        chats = chats.order_by('date_created')
    context = {
        "page": "home",
        "users": users,
        "chats": chats,
        "chat_id": int(request.GET['u'] if request.method == 'GET' and 'u' in request.GET else 0)
    }
    print(request.GET['u'] if request.method == 'GET' and 'u' in request.GET else 0)
    return render(request, "chat/home.html", context)

def get_messages(request):
    chats =
    chatMessages.objects.filter(Q(id__gt=request.POST['last_id']), Q(user_from=request.user.id,
    user_to=request.POST['chat_id']) | Q(user_from=request.POST['chat_id'], user_to=request.user.id))
    new_msgs = []
    for chat in list(chats):
        data = {}
        data['id'] = chat.id
        data['user_from'] = chat.user_from.id
        data['user_to'] = chat.user_to.id
        data['message'] = chat.message
        data['date_created'] = chat.date_created.strftime("%b-%d-%Y %H:%M")
        print(data)
        new_msgs.append(data)
    return HttpResponse(json.dumps(new_msgs), content_type="application/json")

def send_chat(request):
    resp = {}
    #User = get_user_model()
    User = MyUser.objects.all()
    if request.method == 'POST':
        post = request.POST

        u_from = MyUser.objects.get(id=post['user_from'])
        u_to = MyUser.objects.get(id=post['user_to'])

```

```

insert = chatMessages(user_from=u_from,user_to=u_to,message=post['message'])
try:
    insert.save()
    resp['status'] = 'success'
except Exception as ex:
    resp['status'] = 'failed'
    resp['mesg'] = ex
else:
    resp['status'] = 'failed'

return JsonResponse(json.dumps(resp), content_type="application/json")

```

IN URLS.PY OF THE PROJECT

```

from django.urls import path
from . import views

urlpatterns = [

    path('chat-home/', views.home, name="chat-home"),

    path('base/', views.base, name="base"),
    path('send/', views.send_chat, name='chat-send'),
    path('renew/', views.get_messages, name='chat-renew'),

]

```

IN MODELS.PY

```

class chatMessages(models.Model):
    user_from = models.ForeignKey(settings.AUTH_USER_MODEL,
        on_delete=models.CASCADE,related_name="+")
    user_to = models.ForeignKey(settings.AUTH_USER_MODEL,
        on_delete=models.CASCADE,related_name="+")
    message = models.TextField()
    date_created = models.DateTimeField(default=timezone.now)

    def __str__(self):
        return self.message

```

IN TEMPLATES

HOME.HTML

```
{% extends 'chat/base.html' %}
{% load static %}

{% block content %}

<!DOCTYPE html>
<html>
<head>
  <title>{% block title %}chat with friends {% endblock %}</title>
  <!--jquery code for autocomplete javascriptcode---->
<script src="{% static 'DimosoApp/assets/jqueryui/external/jquery/jquery.js' %}"
type="text/javascript"></script>
<script src="{% static 'DimosoApp/assets/jqueryui/jquery-ui.js' %}"
type="text/javascript"></script>

  <style>
    #user-list a.bg-dark {
      background-color: rgb(107, 107, 107) !important;
    }

    .list-group-item {
      cursor: pointer
    }

    .chat-bubble {
      min-width: 40%;
      max-width: 80%;
      padding: 5px 15px;
    }

    #user-list a:hover * {
      text-decoration: unset;
    }

    .chat-box {
      overflow: auto;
      max-width: 100%;
    }
  </style>
</head>
<body>

<div class="container" >
  <div class="card h-100 border-light" style="background-color: #128c7e;">
    <div class="card-body h-100">
```



```

<div class="row h-100">

    <!--hii ni kwa ajili ya kudisplay users-->
<div class="col-md-4 h-100 border-right h-100" >

<div id="panels">

    <div style="font-size: 20px;font-weight: bold;"><button class="btn btn-primary" style="width:
100%;margin-bottom: 1cm;">See All Friends/ <span style="color: red;font-weight: bold;">click to
hide!</span></button></div>
    <div>

{% for u in users %} {% if not u.id == 0 and not u.id == user.id %}
<a class="list-group-item {% if u.id != chat_id %}bg-dark{% else %}bg-primary{% endif %} text-
white" href="{% url 'chat-home' %}?u={{u.id}}">
<p style="font-size: 17px;font-weight: bold;text-decoration: none;">{% if users.profile_image
%}{% else %}  {% endif %} {{u.username}}</p>
</a>
{% endif %} {% endfor %}

    </div>

</div>

</div>

<!--mwisho hapa-->

    <div class="col-md-8 h-100" style="background-color: wheat;">
        {% if not chat_id > 0 %}
            <div class="h-100 d-flex flex-column justify-content-center align-items-center">
                <h3 style="color: black;">Start Chat now</h3>
                <p><h3 class="text-muted" style="color: red;font-weight: bold;font-family:
bold;">Please select a person to chat with.</h3></p>
            </div>
        {% else%}
            <div id="chat-box-field" class="h-100">
                <div class="chat-box" style="height:80%">
                    {% for chat in chats %} {% if chat.user_from == user %}
                        <div class="p-2 w-100 d-flex justify-content-end">
                            <div class="chat-bubble ml-2 mb-2 text-light rounded" data-id="{{chat.id}}"
style="background-color: #075e54;">
                                <p>{{chat.message}}</p>
                                <div class="d-flex justify-content-between"><small>You</small>
<small>{{chat.date_created|date:"M-d-Y H:i"}}</small></div>
                            </div>

```



```
type="text/javascript"></script>
```

```
<script>
```

```
$(function() {  
  if ($('.chat-bubble:last').length > 0) {  
    $('.chat-box').animate({  
      scrollTop: $('.chat-bubble:last').offset().top  
    }, 'fast')  
  }  
  $('#chat-submit').submit(function(e) {  
    e.preventDefault()  
    start_loader()  
    $.ajax({  
      headers: {  
        "X-CSRFToken": '{{csrf_token}}'  
      },  
      url: "{% url 'chat-send' %}",  
  
      method: "POST",  
      data: $(this).serialize(),  
      dataType: "json",  
      error: err => {  
        console.log(err)  
        alert('an error occurred')  
      },  
      success: function(resp) {  
        if (typeof resp == "object" && resp.status == 'success') {  
          location.reload()  
        } else {  
          console.log(resp)  
          alert('an error occurred')  
        }  
      }  
    })  
  })  
})
```

```
})  
chats_renew()  
setInterval(() => {  
  chats_renew()  
}, 2500)
```

```
})
```

```
function chats_renew() {  
  var last_id = 0  
  if ($('.chat-bubble').length > 0)  
    last_id = $('.chat-bubble:last').attr('data-id')
```

```

$.ajax({
  headers: {
    "X-CSRFToken": '{{csrf_token}}'
  },
  url: "{% url 'chat-renew' %}",
  method: "POST",
  data: {
    last_id: last_id,
    user_id: '{{user.id}}',
    chat_id: '{{chat_id}}'
  },
  dataType: 'json',
  error: err => {
    console.log(err)
    // alert('an error occurred')
  },
  success: function(resp) {
    if (Object.keys(resp).length > 0) {
      Object.keys(resp).map(k => {
        if (resp[k].id.user_from == '{{user.id}}') {
          bubble = '<div class="p-2 w-100 d-flex justify-content-end">' +
            '<div class="chat-bubble ml-2 mb-2 bg-primary text-light rounded" data-id="' +
resp[k].id + "'>' +
            '<p>' + resp[k].message + '</p>' +
            '<div class="d-flex justify-content-between"><small>You</small> <small>' +
resp[k].date_created + '</small></div>' +
            '</div>' +
            '</div>';
        } else {
          bubble = '<div class="p-2 w-100 d-flex justify-content-start">' +
            '<div class="chat-bubble mr-2 mb-2 bg-light text-dark rounded" data-id="' +
resp[k].id + "'>' +
            '<p>' + resp[k].message + '</p>' +
            '<div class="d-flex justify-content-between"><small>Sender</small> <small>' +
+ resp[k].date_created + '</small></div>' +
            '</div>' +
            '</div>';
        }
        // console.log(bubble)
        $('.chat-box').append(bubble)
        $('.chat-box').animate({
          scrollTop: $('.chat-bubble:last').offset().top * 1000
        }, 'fast')
      })
    }
  }
})

```



```
</script>

</body>
</html>
{% endblock %}
```

BASE.HTML

```
{% load static %}

<!DOCTYPE html>
<html lang="en">
<style>
    html,
    body {
        height: 100%;
        width: 100%;
    }
</style>

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Chat Friends</title>

    <link rel="stylesheet" href="{% static 'DimosoApp/chat/css/bootstrap.min.css' %}">
    <link rel="stylesheet" href="{% static 'DimosoApp/chat/fontawesome-free/css/all.min.css' %}">
    <link rel="stylesheet" href="{% static 'DimosoApp/chat/css/custom.css' %}">
    <script src="{% static 'DimosoApp/chat/js/jquery-3.6.0.min.js' %}"></script>
    <script src="{% static 'DimosoApp/chat/js/popper.min.js' %}"></script>
    <script src="{% static 'DimosoApp/chat/js/bootstrap.min.js' %}"></script>
    <script src="{% static 'DimosoApp/chat/js/script.js' %}"></script>

</head>

<body class= 'text-light' style="background-color: wheat;">
    <nav class="navbar navbar-expand-lg navbar-dark w-100 border-bottom border-primary mb-2"
id="top-nav" style="background-color: #128c7e;">
        <a class="navbar-brand" href="">Chat With Friends</a>
        <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#nav-
menu" aria-controls="nav-menu" aria-expanded="false" aria-label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>

        <div class="collapse navbar-collapse" id="nav-menu">
            <ul class="navbar-nav mr-auto">
```

```

        <li class="nav-item {% if page == 'home' %} active {% endif %}">
            <a class="nav-link" href="{% url 'home' %}"><i class="fa fa-home"></i> Home</a>
        </li>
        <li class="nav-item">
            <a class="nav-link" href="{% url 'user_logout' %}"><i class="fa fa-sign-out-alt"></i>
Logout</a>
        </li>
    </ul>
    {% if user.is_authenticated %}
        <span><a class="text-light" href=""><i class="fa fa-user"></i> <b>Welcome
{{user.username}}!</b></a></span> {% endif %}

</nav>
<div class="container h-100">
    {% block content %}{% endblock content %}
</div>
</body>
<script>
    $(function() {
        $('div.dataTables_length select').addClass('bg-dark')
    })
</script>

</html>

```

ILA HAKIKISHA USER TEYARI AMESHALOGIN AU AMEJIREGISTER KWENYE SYSTEM

