

# MINI PROJECT – I

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## Real Time Messenger

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### SYNOPSIS



Institute of Engineering & Technology

Bachelor of Technology

In

Computer Science and Engineering

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## **Introduction**

Nowadays, when all sorts of chat rooms have become extremely popular, when every second large company has launched or developed its own instant messenger, when an increase of smiles and change in the text size is considered as innovation, in the era of iMessages, Slack, Hipchat, Messenger, Google Allo, Zulip, etc. We will use `django-channels` .

Python is fast becoming a popular coding language in the world, and there are many popular frameworks that build on Python. One of them is Django and it has many functionalities and supporting libraries. For this article, we like to explore one interesting method that builds on Django to handle not only HTTP but also long running connections such as WebSockets, MQTT, chatbots, etc.

## **Technical Details**

Basic example of a multi-room chatroom, with messages from all rooms a user is in multiplexed over a single WebSocket connection. There is no chat persistence; you only see messages sent to a room while you are in that room.

Uses the Django auth system to provide user accounts; users are only able to use the chat once logged in, and this provides their username details for the chatroom.

This package allows our application to interact with a user not only using HTTP 1.1 (request-response), but also using HTTP/2 and WebSocket.

WebSocket is designed for exchanging messages between the client and the web server in real time. You should consider it as an open channel between the client and the server, with the ability to subscribe to the events sent to it.

## **Software Specification**

- Technology Implemented : javascript, django, python, websocket
- User Interface Design : Web based Application
- Web Browser : Chrome

## **Hardware Requirement**

- Processor : Intel CORE i3
- Operating System : Windows 10
- RAM : 4 GB
- Hardware System : Computer System
- Hard Disk : 64 GB

