

# A Presentation On

## Custom Chat Room App

Course Title: Mobile and Wireless Communication Sessional  
Course Code: CSE 420

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# Outline

- ❑ Introduction
- ❑ Main Objectives
- ❑ Tools and Technology
- ❑ Modules
- ❑ Output
- ❑ Future work
- ❑ Limitation
- ❑ Conclusion



# Introduction

**Project name:** Custom Chat Room

**Key Features of this project:** The custom chat room project is designed to facilitate real-time communication between multiple users in a web-based environment.

- ❑ **Chat Room Creation and Joining**
- ❑ **Real-time Messaging**
- ❑ **Image Sharing**
- ❑ **User Presence and Notifications**
- ❑ **Activity Tracking**



# Objectives

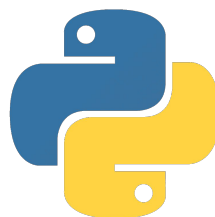
## **The main objective of our system is :**

- Enable users to create and join chat rooms.
- Support real-time messaging between participants.
- Implement a user-friendly interface for an enhanced user experience.
- Allow the exchange of text and image messages.
- Provide a secure and efficient communication platform.



# Tools and Technology

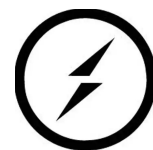
- ❑ **Flask:** A web framework for building the server-side application.
- ❑ **Socket.IO:** A library to enable bidirectional communication between clients and servers.
- ❑ **Python:** The programming language used for server-side logic.
- ❑ **HTML, CSS, JavaScript:** For creating the front-end user interface.
- ❑ **Werkzeug:** A utility library for handling file uploads.



python



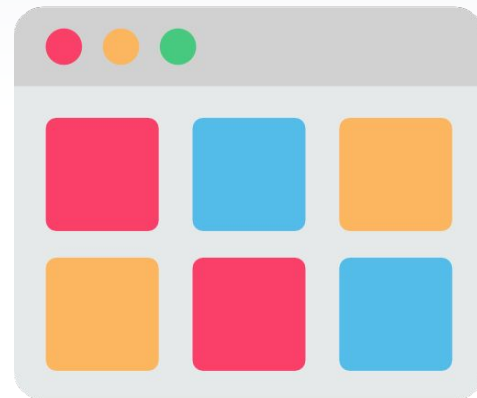
Flask



socket.io

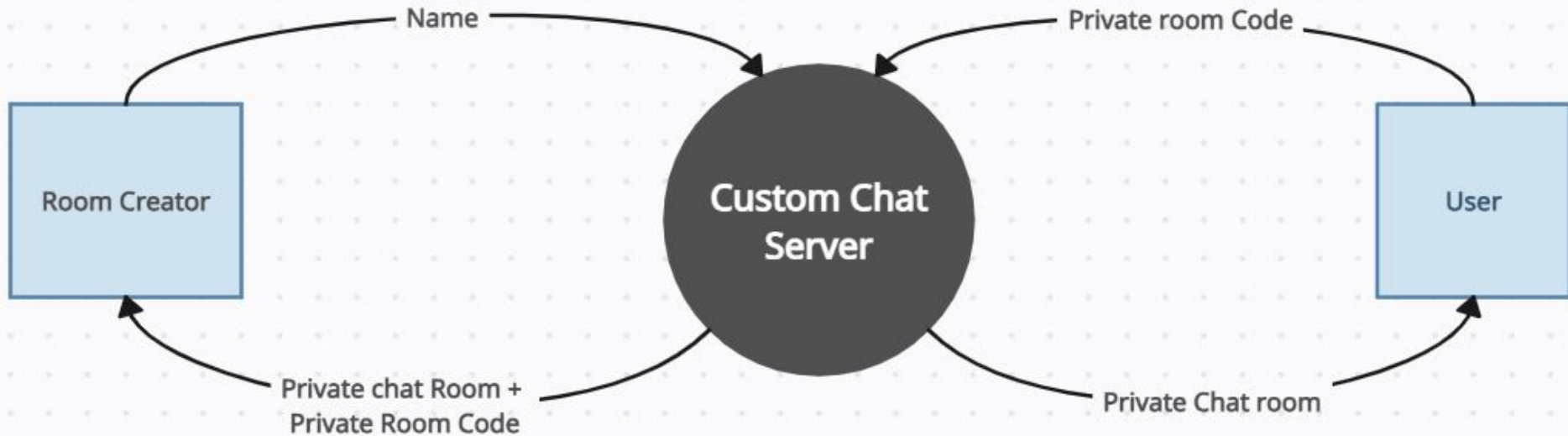
# Modules

- ❑ **Home Module:** Responsible for user registration, room creation, and joining.
- ❑ **Room Module:** Manages the chat room interface, messaging, and user interactions.

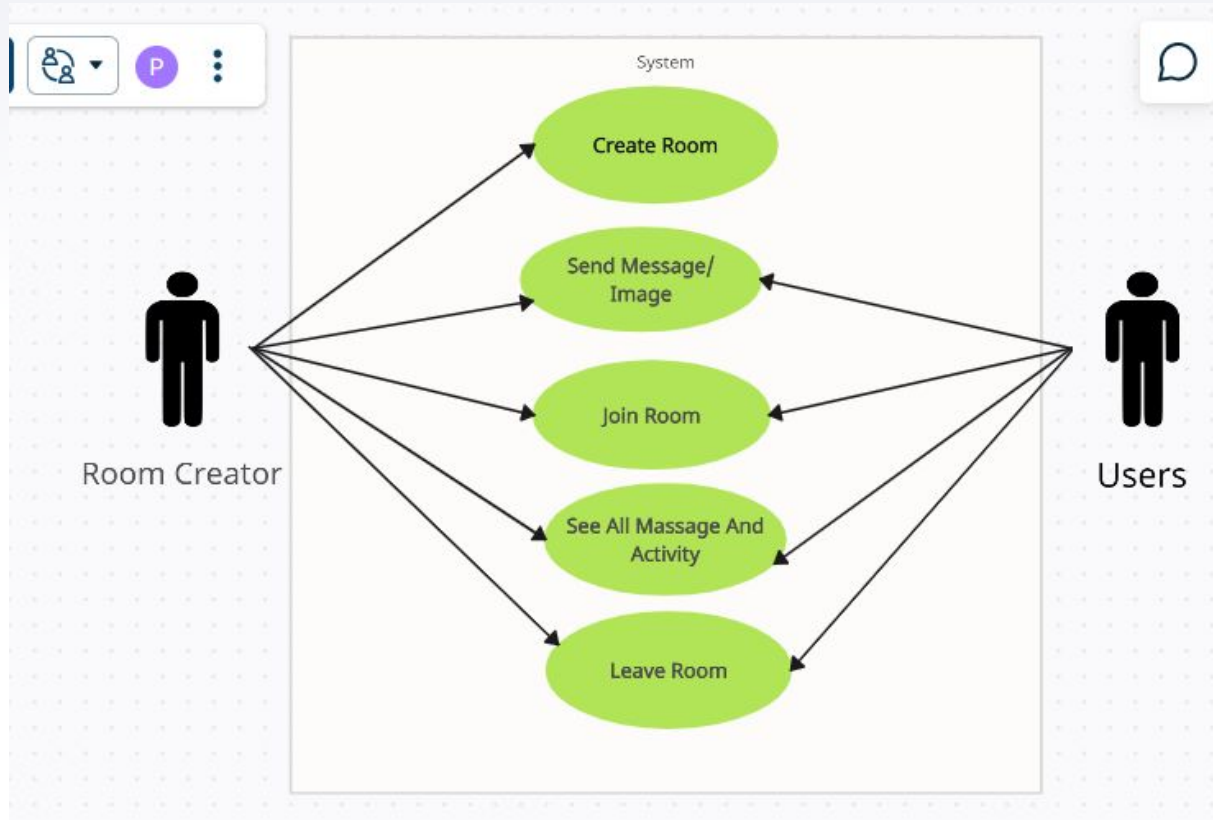


# System Analysis

- ▶ DFD: A 0 level Data flow diagram....

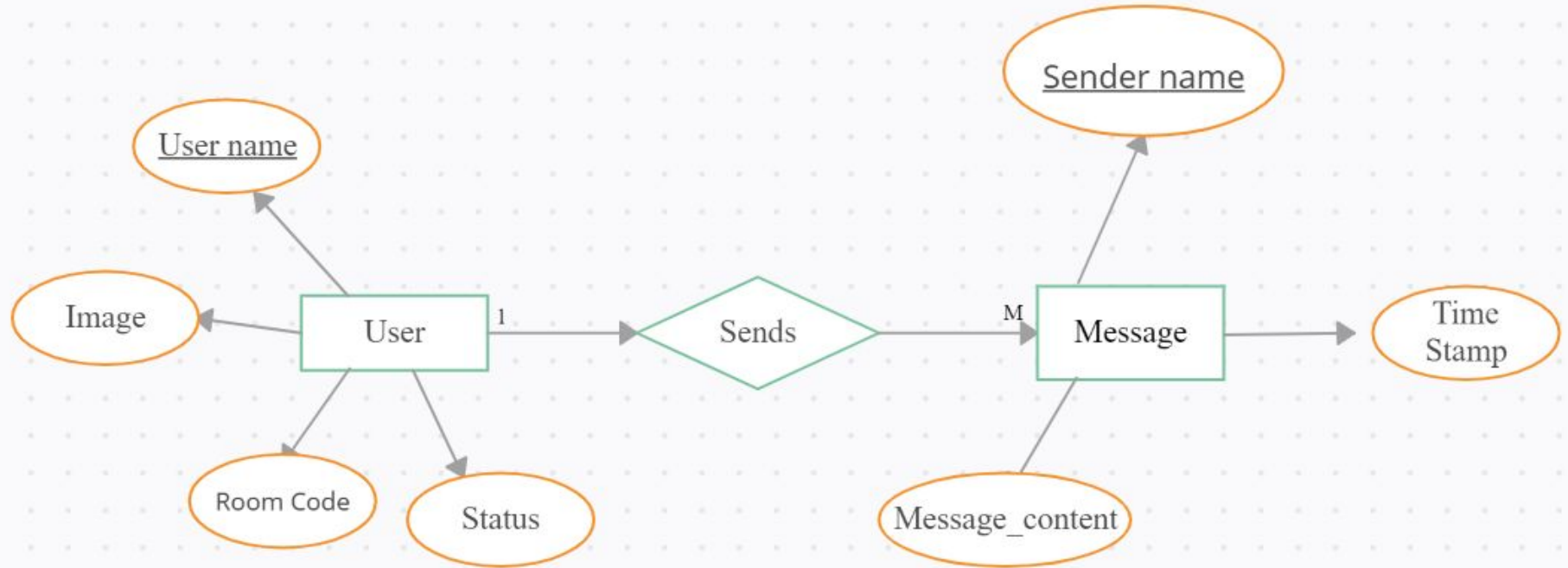


# Use Case Diagram





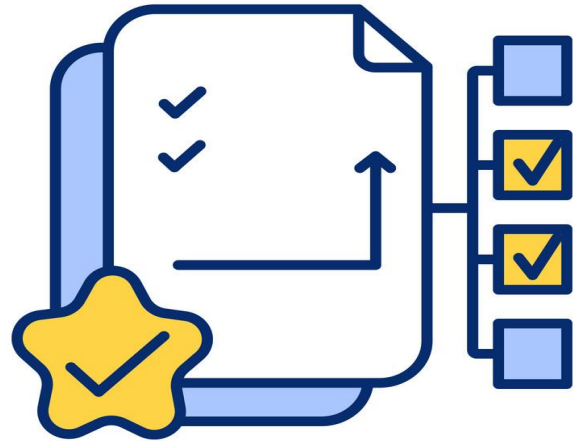
# ER diagram



# ► Output & Discussion

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The outputs of different modules of our application are shown by the screenshots and also showing the explanation



# Home page to Create or Join Chat.

**Enter The Chat Room**

Name:

# Created Chat Room

abubakar's Chat Room: OMZQ

abubakar: has entered the room

2/3/2024, 6:38:32 AM

Message

Send

Choose File

No file chosen

Send Image

Exit

# Join Chat Room

## abu's Chat Room: BLRE

**abu:** has entered the room

2/3/2024, 7:06:00 AM

**Mamun:** has entered the room

2/3/2024, 7:06:15 AM

Send

Choose File

No file chosen

Send Image

Exit


# Send Text Message

**abubakar:** has entered the room

**abubakar:** Hello this is a Text Message.

# Send Images

abubakar:



2/3/2024, 6:42:37 AM

Message

Send

Choose File 7.jpg

Send Image

Exit

# Limitation

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- ❑ No User Status Indicators
- ❑ No Message Editing or Deletion
- ❑ Less functions are used
- ❑ Not a complete messaging system





# Future work

- ❑ **User Authentication:** Implement user authentication to secure chat rooms.
- ❑ **Private Messaging:** Introduce private messaging features between users.
- ❑ **Notifications:** Implement real-time notifications for new messages and room activities.



# Conclusion

- ✓ The Custom chat application successfully provides a real-time communication platform with room creation, text, and image messaging features. While achieving its main objectives, future work can enhance security, user experience, and introduce additional features to make it even more versatile and user-friendly.



**THANK You!**