

## Chat App - Implementation Manual:

### UML Diagram



### Implementation:

- **Main Class Structure:**
  - The ChatApp class extends Application, which is the entry point for JavaFX applications.
  - It contains instance variables for UI components (chatArea, user1InputField, user2InputField) and user-related data (user1Name, userName).

- The class implements methods such as start, sendMessage, appendMessage, and getCurrentTime, as well as the main method.
- **UI Setup (start Method):**
  - The start method initializes the UI components using JavaFX classes (BorderPane, VBox, TextArea, TextField, Button).
  - It sets up event handlers for button clicks (user1SendButton, user2SendButton) to send messages.
  - Dialog boxes (TextInputDialog) are used to prompt users for their usernames (user1Dialog, user2Dialog).
- **Message Handling:**
  - The sendMessage method processes and sends messages entered by users, and adds a timestamp.
  - The appendMessage method updates the chat area with the sent message using Platform.runLater.
- **Time Formatting:**
  - The getCurrentTime method formats the current time in the "HH:mm:ss" format using SimpleDateFormat.