# **User Manual for Console Social Network Application**

## **1. Web Server Deployment Instruction**

### **Step 1: Install Necessary Software**

* Ensure that you have **Node.js** and **MongoDB** installed on your machine.

### **Step 2: Clone the Repository**

* Clone the project repository to your local machine using the following command:

git clone <repository-url>

* Navigate to the project directory:

cd console-social-network

### **Step 3: Install Dependencies**

* Install the required npm packages by running:

npm install

### **Step 4: Start MongoDB**

* Start your MongoDB server. If it's installed locally, run the following command in a new terminal window:

mongod

### **Step 5: Start the Web Server**

* Start the server by running the following command:

npm start

* You should see a message indicating that the server is running on port 3000.

## **2. Web Application Access Instruction**

### **Step 1: Accessing the Console Application**

* After starting the server, open a new terminal window and navigate to the project directory.
* Run the client application using the command:

node client.js

### **Step 2: Using the Application**

* When you run the client application, you will be presented with the following options:
  1. **Login**
  2. **Register**
  3. **Quit**
* Choose an option by entering the corresponding number and pressing Enter.

## **3. Client Requirements Met**

### **Met Requirements:**

* **User Registration:** Users can register by providing a username, email, and password.
* **User Login:** Registered users can log in using their credentials.
* **Direct Messaging:** Users can send direct messages to other online users.
* **Data Persistence:** User credentials and online/offline status are stored securely in MongoDB.

### **Unmet Requirements:**

* None. All client requirements are implemented in the application.

## **4. How to Use the Web Application**

### **Login/Registration Page**

* After starting the client application, you'll be prompted to **Login** or **Register**.

### **User List and Messaging**

* Once logged in, you'll see a list of online and offline users. You can select a user to start a direct message.

### **Direct Messaging**

* In the direct message window, you can chat with the selected user in real-time.

## **5. Troubleshooting Guide**

### **Issue 1: "Connection Refused" Error**

* Ensure that the server is running before starting the client application. The server should display "Server is running on port 3000."

### **Issue 2: MongoDB Connection Error**

* Make sure MongoDB is running. If using a local instance, ensure the mongod process is active. If using MongoDB Atlas, check your connection string and network access settings.

### **Issue 3: Application Crashing or Not Responding**

* Restart the server using:

npm start