PROJECT PATIENT PORTAL AND ENGAGEMENT

Subproblem 1: User Authentication

- The user should be able to create an account or log in to an existing account.
- Store user credentials securely in a database.

Pseudocode:

```
# User authentication
def create_account(username, password):
    # Store username and hashed password securely in the database
    ...

def login(username, password):
    # Check if the username and password match the stored credentials
    ...

def logout():
    # Clear the user session
    ...
```

Subproblem 2: Patient Information Management

- Allow patients to view and update their personal information.
- Store patient information in a database.

Pseudocode:

```
# Patient information management
def get_patient_info(patient_id):
```

```
    # Retrieve patient information from the database based on patient ID
    ...

def update_patient_info(patient_id, updated_info):
    # Update the patient's information in the database
    ...

def view_medical_history(patient_id):
    # Retrieve the patient's medical history from the database
    ...
```

Subproblem 3: Appointment Scheduling

- Allow patients to schedule, view, and manage their appointments.
- Store appointment details in a database.

Pseudocode:

```
# Appointment scheduling
def schedule_appointment(patient_id, appointment_details):
    # Store the appointment details in the database
    ...

def get_appointments(patient_id):
    # Retrieve the appointments for a specific patient from the database
    ...

def cancel_appointment(appointment_id):
    # Remove the appointment from the database
```

```
    ...
```

Subproblem 4: Communication and Engagement

- Enable communication between patients and healthcare providers.
- Implement features such as messaging and notifications.

Pseudocode:

```
# Communication and engagement
def send_message(sender_id, recipient_id, message):
    # Send a message from the sender to the recipient
    ...

def get_messages(user_id):
    # Retrieve messages for a specific user
    ...

def send_notification(user_id, notification):
    # Send a notification to a specific user
```