**Object Diagram HealthMate AI**

An object diagram visually represents objects, their attributes, and their relationships within a system. In this context, we'll explore the object diagram for the "User" object in HealthMate AI.

**User Object:**

* **Attributes:**
  + **username** (String): The user's chosen username during registration.
  + **email** (String): The user's email address associated with their account.
  + **healthMetrics** (HealthMetrics): An instance of the HealthMetrics class representing the user's health-related data.
* **Relationships:**
  + The User object is associated with the HealthMetrics object, which stores the user's health data.

**HealthMetrics Object:**

* **Attributes:**
  + **weight** (Float): Represents the user's weight.
  + **bloodPressure** (Integer): Stores blood pressure readings.
  + **heartRate** (Integer): Records heart rate measurements.
  + **symptoms** (List of Strings): Contains a list of user-reported symptoms.

**Appointments Object:**

* **Attributes:**
  + **date** (Date): Represents the date of a medical appointment.
  + **time** (Time): Stores the time of the appointment.
  + **doctorName** (String): Records the name of the attending doctor.

**Communication\_Module Object:**

* **Attributes:**
  + **textCommunication** (Boolean): Indicates if text-based communication is supported.
  + **imageCommunication** (Boolean): Indicates if image-based communication is supported.

**Hospital\_Staff Object:**

* **Attributes:**
  + **name** (String): Represents the name of a hospital staff member.
  + **role** (String): Specifies the role or job title of the staff member.
  + **communicationLink** (Communication\_Module): Links to the Communication\_Module object for staff communication.

**Registration\_Module Object:**

* **Attributes:**
  + **userRegistration** (Boolean): Specifies if user registration is enabled.
  + **profileManagement** (Boolean): Indicates if user profile management is supported.

**Security\_Module Object:**

* **Attributes:**
  + **encryption** (Boolean): Indicates if encryption features are implemented.
  + **dataSecurity** (Boolean): Specifies if data security measures are in place.

**Database Object:**

* **Attributes:**
  + **userRecords** (List of User): Stores user records.
  + **healthData** (List of HealthMetrics): Contains health-related data.
  + **appointmentDetails** (List of Appointments): Stores appointment details.

**Conclusion:**  
The object diagram for the "User" object in HealthMate AI provides a visual representation of its attributes and relationships within the system. This diagram aids in understanding how user data is structured and interacts with various components of the application.