**Explanations of Hospital mini project**

**User Class:**

* The `User` class encapsulates common attributes and methods for both patients and doctors.
* Attributes include `username`, `password`, and `balance`.
* The constructor initializes these attributes when a new user is created.
* Methods allow for checking passwords, retrieving balance, charging the account, and displaying available services.

**Doctor Class:**

* The `Doctor` class represents a doctor within the hospital system.
* It extends the functionality of the `User` class to include doctor-specific features such as managing availability.
* In addition to the inherited attributes and methods, it includes a list of `availability` to track time slots when the doctor is available.
* Methods allow for adding availability slots and displaying doctor-specific services.

**HospitalSimulation Class:**

* The `HospitalSimulation` class orchestrates the overall functionality of the hospital management system.
* It maintains lists of users and doctors as well as a `Scanner` object to handle user input.
* Methods include user registration, doctor registration, user login, and doctor login.
* The `register` method prompts users to input their username and password, and based on whether they are registering as a doctor or patient, creates the corresponding user object and adds it to the appropriate list.
* The `login` and `loginDoctor` methods validate user credentials by iterating through the list of users or doctors respectively.
* The `main` method serves as the entry point of the application, providing a menu-driven interface for users to login, register, or exit the system.
* It continuously loops until the user chooses to exit, handling various user actions such as login attempts and registration requests.

**Main Method:**

* The main method creates an instance of `HospitalSimulation` and a `Scanner` object to read user input.
* It displays a menu with options for patient login, doctor login, doctor registration, patient registration, or exiting the system.
* Based on the user's choice, it invokes the corresponding methods in the `HospitalSimulation` class to perform the desired action.

**Usage:**

* Patients can login to view their balance or charge their account.
* Doctors can login to view their schedule, add availability slots, or perform account operations.
* New patients and doctors can register to create accounts in the system.