**J2EE BUSINESS COMPONENTS - ITE-5432-0NA**

**COURSE PROJECT - PHASE I**

**HEALTHSYNC**

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**BUSINESS CASE :**

**🧩 Problem Statement**

Access to quality healthcare, particularly virtual consultation services, remains limited in many areas. Patients face difficulties in scheduling appointments, while doctors struggle with managing virtual consultations and medical records. There is a lack of integrated platforms that support real-time interaction, secure data handling, and role-based operations in a scalable, cloud-ready architecture.

**👥 Target Audience**

* **Patients**: Require a platform to book, manage, and attend virtual consultations.
* **Doctors**: Need tools to manage their availability, consult with patients, and record diagnoses/prescriptions.
* **Administrators**: Oversee users, platform operations, and enforce compliance/security.

**🧪 Proposed Solution**

An **Online Healthcare Consultation Portal** built with **Spring Boot microservices**, providing:

* **Role-based authentication and authorization** (Admin, Doctor, Patient).
* **Appointment management**: Booking, updating, canceling.
* **Prescription and diagnosis management**.
* **Live consultation queue** using **Spring**  for reactive data handling.
* **Podman** container-based deployment for modularity and scalability.

**📦 Scope**

**Mandatory Core Functionalities:**

* Secure user registration and login (Spring Security)
* CRUD operations for appointments
* Prescription and diagnosis module
* Microservices for:
  + User Management
  + Appointment Management
  + Prescription Handling
* Podman containerized deployment

**Optional Features:**

* Email/SMS notifications
* Feedback system for doctors
* Admin analytics dashboard

**✅ Justification**

* **Relevance**: Addresses rising demand for virtual healthcare services.
* **Expected Outcomes**:
  + Reduced operational friction
  + Enhanced accessibility for patients
  + Streamlined scheduling for doctors
* **Feasibility**: The microservices approach allows incremental development with clearly defined milestones using Spring technologies, and Podman.

**2. CLASS DIAGRAM :**

A screenshot of a computer

AI-generated content may be incorrect.

**3. SEQUENCE DIAGRAM:**

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AI-generated content may be incorrect.

**4. GITHUB LINK :**

**https://github.com/Priya-2705/HealthSync.git**