Project name: Lifeline

Project number: 22

Project Domain area: Healthcare

1. Ubiquitous language: Define key domain terms or shared vocabulary and their meaning.

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| **Vocabulary** | **Meaning** |
| Patient | An Individual receiving medical care or treatment |
| Doctor | A qualified medical professional responsible for diagnosing and treating patients |
| Hospital | A facility providing medical services, including treatment, surgeries, and emergency care. |
| Article | A blog written by a Doctor that states any important healthcare content to the audience. |
| Appointment | A scheduled meeting between a Doctor and a Patient. |

1. Domain model: Identify each of the following in your project and describe them.

* 1. Entities

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| **Entity** | **Description** | **Pseudo code** |
| Doctor | The user that can provide appointments to patients. He can check all of his appointments in his dashboard. | Entity Doctor {  String name,  String doctorID - primary key,  String hospitalID,  String specialization,  String password(encrypted),  Function showAppointments,  Function deleteAccount,  Function addBlog  } |
| Patient | A person who seeks medical assistance from doctors. | Entity Patient {  String name,  String username - primary key,  String password(encrypted),  Integer age,  String mailID,  String mobNumber,  String dob,  String verificationToken,  Function verifyEmail,  Function bookAppointment,  Function showAppointments,  Function getTotalExpenditure,  Function readBlogs,  Function deleteAccount  } |
| Hospital | A healthcare facility where doctors provide medical services. | Entity Hospital {  String name,  String hospitalID - primary key,  String password(encrypted), |
| Admin | A user with administrative privileges in the system. | Entity Admin {  String name,  String username (primary key),  String password (encrypted),  Function manageDoctors,  Function managePatients,  Function manageHospitals, Function manageDonors, Function managePharmacies} |
| BlogPost | Represents a blog post written by a doctor | Entity BlogPost{  String docID,  String docName,  String specialization,  String title,  String blog,  Number blogID,  String imagepath} |

* 1. valueObjects

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| **valueObjects** | **Description** | **Pseudo code** |
| Appointment | Represents a scheduled appointment between a patient and a doctor. | Entity Appointment{ DateTime appointmentTime,  Doctor assignedDoctor,  Patient patient  } |
| Address | Represents the address details of a person, such as city. | Entity Address{  String city,  …  } |
| MobileNumber | Represents a mobile number | Entity MobileNumber{  String mobileNumber  } |
| Email | Represents an email address | Entity Email{  String email  } |
| DateOfBirth | Represents the date of birth of a person. | Entity DateOfBirth{  DateTime date  } |

* 1. Aggregates

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| **Aggregate** | **Description** | **Entities** | **valueObjects** | **Pseudo code** |
| Hospital | Represents a healthcare institution where medical services are provided. | Doctor, Patient | Address, PhoneNumber | Entity Hospital{  List<Doctor> doctors,  List<Patient> patients,  Address addresss,  PhoneNumber phoneNumber  } |
| Appointment | Represents a scheduled appointment between a patient and a doctor. | Doctor, Patient | DateTime | Entity Appointmnet{  Doctor doctor,  List<Patient> patients,  DateTime appointmentTime} |
| Billing | Represents the financial transactions and invoices associated with medical servies provide to patients. | Patient, Appointment | PaymentReceipt | Entity Billing{  Patient patient,  Appointment appointment ,  PaymentReceipt paymentReceipt  } |
| Pharmacy | Represents a facility where medications and medical supplies are dispensed to patients | Medication | Addres, PhoneNumber | Entity Pharmacy {  List<Medication> medications,  Address address,  PhoneNumber phoneNumber  } |
| Donor | Represents an individual or organization contributing resources | Donor | MobileNumber,Email | Entity Donor {      donorID,      name,       MobileNumber,  email,    } |
| BlogManagement | Manages the creation, retrieval, and publication of blog posts. | BlogPost | Email,  Password | Entity Pharmacy {  List<Medication> medications,  Address address,  PhoneNumber phoneNumber  } |

* 1. Services

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| **Service** | **Description** | **Aggregates** |
| AppointmentScheduler | Manages the scheduling of medical appointments for patients. | Appointment,  Hospital |
| BillingService | Manages financial transactions and billing for medical services provided | Billing |
| BlogService | Manages the creation, retreival, and publication of blogs | BlogManagement |
| BloodDonationService | Facilitates the process of blood donation and manages blood donor information. | Donor |

* 1. Repositories

MongoDB,

Patient Repository,

DoctorRepository,

HospitalRepository,

AdminRespository