

CRC Model

Client Booking

Use cases - Application Business Rules Layer

AppointmentBooking

Responsibilities

- **client**
- **clinic**
- **timePeriod**
- **vaccineBrand**
- **appointmentId**
- isTimeslotAvailable
- assignVaccineDose
- hasUniqueId
- createAppointment

Collaborators

- UseCaseManager

AppointmentCancellation

Responsibilities

- **appointmentId**
- **clinic**
- deleteAppointment

Collaborators

- UseCaseManager

AppointmentViewing

Responsibilities

- **appointmentID**
- **clinic**
- appointmentDetails
- getBookedAppointmentString

Collaborators

- UseCaseManager

RecordAdding

Responsibilities

- **clinic**
- logAppointment
- logWalkIn
- logByDateTime
- logByDate

Collaborators

- UseCaseManager

Client Managements

Use cases - Application Business Rules Layer

BatchAdding

Responsibilities

- **clinic**
- **batch**
- addBatch

Collaborators

- UseCaseManager

SetTimePeriod

Responsibilities

- **clinic**
- setEmployees
- addTimePeriod
- removeTimePeriod
- addMultipleTimePeriods

Collaborators

- UseCaseManager

Database Integration

Data Access - Framework and Drivers, Controllers

Data Retrieval - Interface

Responsibilities

- getClinicIDs
- getBookableClinicIDs
- getClients
- getClinicInfo
- getVaccineBatches
- getTimePeriods
- getAppointments

Collaborators

- Retriever

Data Modification - Interface

Responsibilities

- writeToAppointment
- writeToTimePeriods
- writeToVaccineBatch
- deleteAppointment
- updateReservedBatch
- isExistingClinic
- updateTimePeriods

Collaborators

- Storer

Database Retrieval (Implements Data Retrieval)

Responsibilities

- **databaseClient**
- **databaseClinic**
- **databaseBatch**
- **databaseTimePeriods**
- **databaseAppointment**
- getClients
- getClinicInfo
- getVaccineBatches
- getTimePeriods
- getAppointments

Collaborators

- Retriever
- DatabaseClient
- DatabaseClinic
- DatabaseBatch
- DatabaseTimePeriods
- DatabaseAppointment

Database Modification (Implements Data Modification)

Responsibilities

- **databaseClient**
- **databaseBatch**
- **databaseTimePeriods**
- **databaseAppointment**
- writeAppointment
- deleteAppointment
- writeToClient
- writeToTimePeriods
- updateTimePeriods
- writeToVaccineBatch
- updateReservedBatch

Collaborators

- Storer
- DatabaseClient
- DatabaseBatch
- DatabaseTimePeriods
- DatabaseAppointment

Database Appointment (+ associated interface)

Responsibilities

- **connection**
- **statement**
- addAppointment
- loadAppointments
- deleteAppointment

Collaborators

- DataModification
- DataRetrieval

Database Batch (+ associated interface)

Responsibilities

- **connection**
- **statement**
- addBatch
- loadBatches
- updateReservedBatch

Collaborators

- DataModification
- DataRetrieval

Database Client (+ associated interface)

Responsibilities

- **connection**
- **statement**
- addClient
- loadAllClients

Collaborators

- DataModification
- DataRetrieval

Database Clinic (+ associated interface)

Responsibilities

- **connection**
- **statement**
- loadAllClinics
- isExistingClinic

Collaborators

- DataModification
- DataRetrieval

Database Time Periods (+ associated interface)

Responsibilities

- **connection**
- **statement**
- addTimePeriod
- loadTimePeriods
- updateTimePeriods

Collaborators

- DataModification
- DataRetrieval

Example Retrieval (Implements Data Retrieval)

Responsibilities

- getClients
- getClinicInfo
- getVaccineBatches
- getTimePeriods
- getAppointments

Collaborators

- Retriever

ResultSet to JSON

Responsibilities

- toJSON

Collaborators

- DatabaseClient
- DatabaseClinic
- DatabaseBatch
- DatabaseTimePeriods
- DatabaseAppointment

Drivers

Drivers - Framework and Drivers

Command Line

Responsibilities

- **commandLinePrompt**
- **managementSystem**
- runCommands
- createAcceptableCommandsString
- getClinicId
- Add batch/TimePeriod/TimePeriods/
- SetEmployees
- removeTimePeriod
- (book/cancel/view)Appointment

Take userInput and passes it to VaccineBookingSystem where it is parsed and get result to be displayed

Collaborators

- DataValidation
- Main

DataValidation

Responsibilities

- getCommand
- getValue
- tryParseInt
- isNonPastDate
- isNonPastDateTime

Collaborators

- CommandLine
- DataValidation

Entities

Entities - Enterprise Business Rules Layer

Appointment

Responsibilities

- **appointmentId**
- **client**
- **timePeriod**
- **vaccineBrand**
- **clientVaccinationBatch**
- **appointmentTimePassed**

Collaborators

- AppointmentBooking
- AppointmentCancellation
- AppointmentViewing
- BookableClinic
- ClinicDecorator

Bookable Clinic (extends ClinicDecorator)

Responsibilities

- **appointments**
- addAppointment
- getAppointmentRecord
- removeAppointment
- removeAppointmentById
- logPastAppointments
- getAppointmentIds

Collaborators

- UseCaseManager

Client (Implements User)

Responsibilities

- **name**
- **healthcareNumber**
- **hasAppointment**
- approveAppointment
- disapproveAppointment

Collaborators

- AppointmentBooking
- UseCaseManager
- Appointment
- Clinic
- ClinicDecorator
- ServiceLocation
- VaccinationLog

Clinic (implements ServiceLocation)

Responsibilities

- **clinicId**
- **Supply**
- **log**
- **timePeriods**
- **Shifts**
- **location**
- logContainsId
- overriding ServiceLocation

Collaborators

- UseCaseManager

ClinicDecorator - abstract class (implements ServiceLocation)

Responsibilities

- **decoratedClinic**
- ServiceLocation implementation

Collaborators

- AppointmentBooking
- AppointmentCancellation
- AppointmentViewing
- UseClinicManager
- BookableClinic

ServiceLocation - Interface

Responsibilities

- supplyContainBatchId
- addBatch
- logPastVaccinations
- setShifts
- Add/remove TimePeriod
- getServiceLocation
- getShiftForDate
- shiftAvailable
- containsShift
- checkTimePeriod
- Get timePeriods/ VaccinationLog/
Location/ Supply/ SupplyObj

Collaborators

- BatchAdding
- SetTimePeriod
- UseCaseManager
- BookableClinic
- Clinic
- ClinicDecorator

Time Period

Responsibilities

- **timePeriodId**
- **datetime**
- **availableSlots**
- **bookedSlots**
- findAndReservedSlot
- addAvailabilities

Collaborators

- AppointmentBooking
- SetTimePeriod
- UseCaseManager
- Appointment
- Clinic
- ClinicDecorator
- ServiceLocation

User - interface

Responsibilities



Collaborators



Vaccination Log

Responsibilities

- **log**
- **appointmentBasedPrefix**
- **nonAppointmentBasedPrefix**
- addToLog
- getVaccinationRecord
- getClientByVaccinationId
- getTimeByVaccinationId
- getVaccinationBrandByVaccinationId
- getRecordString
- containsId
- vaccinationRecord

Collaborators

- Clinic
- ClinicDecorator
- ServiceLocation

Vaccine Batch

Responsibilities

- **brand**
- **quantitiy**
- **expiry**
- **id**
- **reserve**
- isExpired
- setReserve
- changeReserve
- getAvailable

Collaborators

- AppointmentBooking
- BatchAdding
- UseCaseManager
- Appointment
- Clinic
- ClinicDecorator
- ServiceLocation
- VaccineSupply

Vaccine Supply

Responsibilities

- **batchList**
- `getAvailbleVaccines`
- `isEmpty`
- `toString`

Collaborators

- `Clinic`
- `ClinicDecorator`
- `ServiceLocation`

Managers

Managament System - interface

Responsibilities

- setEmployees
- addTimePeriod
- removeTimePeriod
- addMultipleTlmePeriods
- addBatch
- getClinicIds
- getBookableClinicIds
- getSupplyByClinic
- bookAppointment
- cancelAppointment
- viewAppointment

Collaborators

- VaccineManagmentSystem
- CommandLine
- Main

Vaccine Management System (implements Management System)

Responsibilities

- setEmployees
- addTimePeriod
- removeTimePeriod
- addMultipleTimePeriods
- addBatch
- getClinicIds
- getBookableClinicIds
- getSupplyByClinic
- bookAppointment
- cancelAppointment
- viewAppointment

Collaborators

- UseCaseManagerInterface

Controllers

UseCaseManager (implements UseCaseManagerInterface)

Responsibilities

- **clinics**
- containsClinicWithId
- createSetTimePeriod
- getClinicById
- overriding UseCaseManagerInterface

Collaborators

- Main

Retriever

Responsibilities

- **dataRetrieval**
- getClinicIDs
- getBookableClinicIDs
- getClients
- getClinicInfo
- getVaccineBatches
- getTimePeriods
- getAppointments
- getClientByHCN

Collaborators

- DataRetrieval

Storer

Responsibilities

- **dataModification**
- writeToAppointment
- writeToTimePeriods
- writeToVaccineBatch
- deleteAppointment
- updateReservedBatch
- isExistingClinic
- updateTimePeriods

Collaborators

- DataModification

UseCaseManagerInterface - interface

Responsibilities

- getClinicIds
- getBookableClinicIds
- AddClinic
- addBookableClinic
- setEmployees
- addTimePeriod
- removeTimePeriod
- addMultipleTimePeriods
- addBatch
- getSupplyStringByClinic
- bookAppointment
- cancelAppointment
- viewAppointment

Collaborators

- UseCaseManager
- VaccineManagmentSystem
- Main

VaccineManagamentSystem (implements ManagementSystem)

Responsibilities

- **useCaseManagerInterface**
- Implementing ManagementSystem

Collaborators

- Client
- Clinics

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