Object Model for SIM System:

In the object model, we depict the entities and their corresponding objects alongside their attributes and associations. Here are the key entities and their affiliated objects:

Technicians:

Object: Technician

Attributes: Name, ID, Contact Information, Skills/Expertise

Associations: Technicians can be assigned to service appointments.

Customers:

Object: Customer

Attributes: Name, ID, Contact Details

Associations: Customers can request service appointments and may have service plans.

Appointment Setters:

Object: Appointment Setter (representing individuals responsible for scheduling appointments)

Attributes: Name, ID, Contact Information

Parts Department:

Object: Parts Department (representing the department responsible for supplying parts)

Attributes: Department Name, Inventory

Associations: Parts Department supplies parts for service appointments.

Service Appointments:

Object: Service Appointment

Attributes: Date, Time, Location, Description, Status, Cost

Associations: Service Appointments are requested by Customers, assigned to Technicians, and may involve interactions with the Parts Department.

Use Case Diagram for SIM System:

In the Use Case diagram, we depict participants (external entities) and activities (system functionalities) alongside their interactions. Here's a simplified presentation:

Participants:

Customer

Technician

Appointment Setter

Parts Department

Activities:

Requesting Service Appointment (Initiated by Customer)

Scheduling Service Appointment (Initiated by Appointment Setter)

Assigning Technician to Appointment (Initiated by SIM System)

Ordering Parts (Initiated by SIM System)

Completing Service Appointment (Initiated by Technician)

Managing Customer Information (Initiated by SIM System)

Managing Technician Information (Initiated by SIM System)

Managing Appointment Setter Information (Initiated by SIM System)

System Boundary: The system boundary is a container encompassing the SIM System, its associated activities, participants, and interactions.

In this Use Case diagram:

Participants (external entities) are presented at the top.

Activities (system functionalities) are listed in the middle.

The connections between participants and activities are illustrated with arrows.

The system boundary encloses the SIM System and its activities.

This Use Case diagram offers a high-level view of how different participants interact with the SIM system and the key functionalities it provides. It forms the basis for more detailed activity descriptions and system design. System Boundary: The system boundary is a box that encloses the SIM System and its associated use cases, actors, and relationships.

A screenshot of a computer

Description automatically generated

In this Use Case diagram:

Actors (external entities) are represented at the top.

Use cases (system functionalities) are listed in the middle.

The interactions between actors and use cases are shown with arrows.

The system boundary encloses the SIM System and its use cases.

This Use Case diagram provides a high-level overview of how different actors interact with the SIM system and the key functionalities it offers. It serves as a foundation for more detailed use case descriptions and system design.