InstallationRequestDB is a collection of multiple InstallationRequests. An aggregation has a diamond end pointing to the part containing the whole.

InstallationRequest

- idNumber: int
- technician: Technician
- customer: Customer
- serviceType: enum [Digital, Analog]

Customer

- name: String
- address: String

A Customer can exist without a service request, so this association is one-way.

AbstractTechnician

- name: String
+ generateBill(r: InstallationRequest): String
+ answerQuestion(q: String): String

We assume the generateBill and answerQuestion methods have the same implementation for Analog and Digital Technicians, so these functions are put in an abstract class. These methods are subsequently omitted from Analog and Digital Technician.

InstallationRequestDB

- installationRequests: LinkedList<InstallationRequest>
+ addRequest(r: InstallationRequest)
+ assignRequest(t: Technician): InstallationRequest

InstallationRequestDB is a collection of multiple InstallationRequests. An aggregation has a diamond end pointing to the part containing the whole.

Technician

+ installSystem(r: InstallationRequest): boolean
+ generateBill(r: InstallationRequest): String
+ answerQuestion(q: String): String
+ canInstall(t: serviceType): boolean

AnalogTechnician

+ installSystem(r: InstallationRequest): boolean
+ canInstall(t: serviceType): boolean

DigitalTechnician

+ installSystem(r: InstallationRequest): boolean
+ canInstall(t: serviceType): boolean

AbstractTechnician

- name: String
+ generateBill(r: InstallationRequest): String
+ answerQuestion(q: String): String

A Customer can exist without a service request, so this association is one-way.