

Assignment 2: Software Implementation - OO Project with GUI

1. **UML Class** Diagram and Description

DentalCompany
-name: String -branches: List
+setName(name:String) +getName():String +addBranch(branches:List) +getBranch():List

DentalBranch
-address: String -phoneNumber: String -manager: String -staff: List -Service: List -patient: List -appointment: List
+setAddress(address:String) +getAddress():String +setPhoneNumber(phoneNumber:String) +getPhoneNumber():String +setManager(manager:String) +getManager():String +addStaff(staff: List) +getStaff():List +addService(Service:List) +getService():List +addPatient(patient:List) +getPatient():List +addAppointment(appointment:List) +getAppointment():List

Service
-name: String -cost: Float
+setName(name:String) +getName():String +setCost(cost:Float) +getCost():Float

Cleaning
-cleaningType: ENUM
+setCleaningType(cleaningType:ENUM) +getCleaningType():ENUM +__str__():String

Implants
-surgicalProcedureDetails: String
+setSurgicalProcedureDetails(surgicalProce dureDetails:String) +getSurgicalProcedureDetails():String +__str__():String

Crowns

-crownMaterial: String
+setCrownMaterial(crownMaterial:String) +getCrownMaterial():String +__str__():String

Fillings
-fillingSize: ENUM
+setFillingSize(fillingSize:ENUM) +getFillingSize():ENUM +__str__():String

Person
-name: String -email: String -phoneNumber: String
+setName(name:String) +getName():String +setEmail(email:String) +getEmail():String +setPhoneNumber(phoneNumber:String) +getPhoneNumber():String +__str__():String

Staff
-staffType: String -salary: Float -hireData: Data
+setStaffType(staffType:String) +getStaffType():String +setSalary(salary:Float) +getSalary():Float

<code>+setHireDate(hireData:Data)</code> <code>+getHireDate():Data</code> <code>+__str__():String</code>

Managers
-department:String
<div><div><code>+setDepartment(department:String)</code> <code>+getDepartment():String</code></div><div><code>+__str__():String</code></div></div>

Receptionists
-deskNumber: Int
<div><div><code>+setDeskNumber(deskNumber:Int)</code> <code>+getDeskNumber():Int</code></div><div><code>+__str__():String</code></div></div>

Hygienists
-lisenceNumber: String
<div><div><code>+setLisenceNumber(lisenceNumber:String)</code> <code>+getLisenceNumber():String</code></div><div><code>+__str__():String</code></div></div>

Dentists
-specialization: String
<div><div><code>+setSpecialization(specialization: String)</code> <code>+getSpecialization():String</code></div><div><code>+__str__():String</code></div></div>

Patient
-healthStatus: ENUM -healthCardNumber: String -haveInsurance: Boolean
+setHealthStatus(healthStatus:ENUM) +getHealthStatus():ENUM +setHealthCardNumber(healthCardNumber:String) +getHealthCardNumber():String +setHaveInsurance(haveInsurance:Boolean) +getHaveInsurance():Boolean +__str__():String

Appointment
-patientName: String -dentistName: String -data: Date -time: Time -phoneNumber: String -services: String -status: ENUM

Bill
-patientName: String -services: String -cost: Float -tax: Float -total: Float -paymentType: ENUM

Payment
<div><div>-patientName: String</div><div>-services: String</div><div>-amount: Float</div><div>-data: Float</div><div>-method: ENUM</div><div>-status: Enum</div></div>