Jared Moore, Max Mueller, Ben Nowacki

CSE 2102

MIS Project

**Assignment #2b:**

Task 1:



Task 2:

* Employee Hierarchy

Diagram

Description automatically generated

* + Class Descriptions:
    - Employee – a parent class representing all employees at a hospital
    - Medical Staff – any employee performing medical operations
    - Doctor – class representing a doctor at the hospital
    - Nurse - class representing a nurse at the hospital
    - Surgeon – class representing a surgeon at the hospital
    - Non-Medical Staff – employees that do not perform medical operations
    - Administration – class representing all the administration workers (receptionist, file clerks, etc) at the hospital
    - Maintenance – class for all maintenance workers at the hospital
    - Janitor – class representing janitors working at the hospital
    - Electrician – class for electricians working at the hospital
  + Hierarchy Rationale:
    - In this hierarchy, employee is the parent class as all child classes are specific types of employees. Employees can be splits into medical and non-medical positions. Medical staff can further be separated into nurses, doctors, and surgeons. Non-medical staff can be separated into administration and maintenance staff. Within maintenance staff, two subgroups can be distinguished: janitor and electrician.
* Appointment Hierarchy

Diagram

Description automatically generated

* + Class Descriptions:
    - Appointments – parent class for all types of hospital appointments
    - Well Visits – class representing all well visit appointments
    - Immunization – class representing appointments in which the patient is seeking an immunization
    - Follow Up Immunization – class representing appointments in which the patient is following up on a previous immunization
    - Physical – class representing appointments in which the patient is scheduled for a physical check up
    - Other Testing – class representing appointments for any other testing in which the patient is not sick (drug tests, antibody tests, blood tests, etc)
    - Sick Visits – class representing all sick visit appointments
    - Emergency – class representing an emergency sick visit
    - Non-Emergency – class representing a sick visit in which the patient’s condition is not an emergency
  + Hierarchy Rationale:
    - In this hierarchy, appointments is the parent class where all child classes are specific types of appointments. All hospital appointments can be divided into two groups: well visits and sick visits. Well visits can be further divided into three categories: immunizations, physicals, and other testing. Immunization appointments also have a child class for follow up immunizations. Emergency and non-emergency appointments are child classes of sick visits. This hierarchy is a form of specialization inheritance in which the general appointments class is divided into more specialized types of appointments.