# CS 372: Java Application Development

# Homework Assignment 2

## MY NAME: DUE: Tues, Jan 8 Received: \_ .

**GRADE:**

|  |  |  |
| --- | --- | --- |
| **PROGRAM** | **POINTS** |  |
| PR2\_1: Person class |  | 15 |
| PR2\_2: Police class, Teacher class, Kid class |  | 20 |
| PR2\_3: Employee interface |  | 10 |
| PR2\_4: Building class |  | 15 |
| PR2\_5: CityHall class, School class |  | 20 |
| PR2\_6: City class |  | 20 |
| **TOTAL** |  | 100 |

***Homework should be stored in your GitHub account. Make sure to include JavaDoc comments, and to build your JavaDoc***

**PR2\_1:** Create a Person base class to represent any person in the City

Name, age, phone number

**PR2\_2:** Create classes to represent Police, Teacher, and Kid objects in the City. Each should inherit from Person

Police Role (Patrol, Sargent, Captain, Chief in an enum)

Teacher grade level and certification

Kid favorite candy

**PR2\_3:** Create an interface called Employee, with a method to give employee’s their pay and a method to ask the employee their EmployeeID. Both Police and Teacher classes should implement Employee

**PR2\_4:** Create a Building class to model any kind of building

Name, address

**PR2\_5:** Create City Hall and School classes. They should both inherit from Building

Array of current occupants

**PR2\_6:** Create a City class that models a city, with the people and buildings that are in the city

You should be able to output the names of all people in a loop

You should be able to output the names of all buildings in a loop

You should know which kids and teachers are in school, and which police officers are in City Hall

You should be able to pay those persons who are employees