# CS 372: Java Application Development

# Homework Assignment 2

## MY NAME: DUE: Fri, Jan 6 Received: \_ .

**GRADE:**

|  |  |  |
| --- | --- | --- |
| **PROGRAM** | **POINTS** |  |
| PR2\_1: Person class | 13 | 15 |
| PR2\_2: Police class, Teacher class, Kid class | 18 | 20 |
| PR2\_3: Employee interface | 10 | 10 |
| PR2\_4: Building class | 15 | 15 |
| PR2\_5: CityHall class, School class | 15 | 20 |
| PR2\_6: City class | 20 | 20 |
| **TOTAL** | 91 | 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**