CS 212 – Lab 2

Create a Java project with the classes specified in **Inheritance & Polymorphism.pdf**.

Create an interface called **Comparable** with a method called ***compareTo***.
The Employee class should implement this interface.

```
public interface Comparable {
    int compareTo(Object o);
}
```

In the Staff and Faculty classes, implement the **compareTo** method from the **Comparable** interface. The *compareTo* method compares **this Object** with another **Object**. It returns a negative integer, zero, or a positive integer if **this Object** is less than, equal to, or greater than, the other **Object**. Compare the pay between each Object. The argument passed in can be either a Staff object OR a Faculty object. Thus, make sure that it is possible to compare a ***Staff*** object to a ***Faculty*** object by **pay**.

What happens if you implement the **compareTo** method in the Employee class rather than the Staff and Faculty classes?

Modify the email method in the Person class as follows: Create an email address with the person's first initial and last name followed by @qc.cuny.edu.
Example: **JDoe@qc.cuny.edu**
DO NOT MODIFY any other code than the email() method in the Person class. There is no need to add instance variables and change the constructor.
Hint: Use the **split()** method to split a string into substrings. Use the charAt(int index) method to retrieve the first character of the first name.

Add the missing accessor and mutator methods to the classes.

In the **InheritanceApp**, make sure the correct information for each employee is displayed. Compare Mary Smith to Dave Watson; the result should show the employee with the higher pay.