Name: Benjamin Knauth  
Date: 03 November 2012  
Class: CMIS 242 Intermediate Programming  
Week: 2

|  |  |
| --- | --- |
| 1 | Insert here a copy of your of the zip file of all of your NetBeans project files so that it could be loaded and run in another NetBeans: |
| 2 | Insert here a copy of your \*.java source code text you used:  **Test File**  public class PersonTest {    public static void main(String[] args) {  System.out.printf("Benjamin Knauth = Teacher's Copy\n\n");    System.out.printf("toString() on Person returns => \t%s\n", new Person().toString());  System.out.printf("toString() on Student returns => \t%s\n", new Student().toString());  System.out.printf("toString() on Employee returns => \t%s\n", new Employee().toString());  System.out.printf("toString() on Student returns => \t%s\n", new Faculty().toString());  System.out.printf("toString() on Employee returns => \t%s\n", new Staff().toString());  }  }  **Class File**  package week.pkg2.homework;  class MyDate {  public int Day;  public String Month;  public int Year;  }  public class Person {  protected String name;  protected String address;  protected String phoneNumber;  protected String email;    public String toString() {  return "Person";  }  }  class Student extends Person {  public static int FRESHMAN = 1;  public static int SOPHOMORE = 2;  public static int JUNIOR = 3;  public static int SENIOR = 4;  protected int status;    public String toString() {  return "Student";  }  }  class Employee extends Person {  protected String office;  protected int salary;  MyDate hireDate = new MyDate();      public String toString() {  return "Employee";  }  }  class Faculty extends Employee{  protected int OfficeHoursStart;  protected int OfficeHoursEnd;    //US University positions according to Wikipedia.  public static int AdjunctProfessor = 1;  public static int Instructor = 2;  public static int Lecturer = 3;  public static int AssistantProfessor = 4;  public static int AssociateProfessor = 5;  public static int Professor = 6;  public static int InstituteProfessor = 7;    protected int rank;      public String toString(){  return "Faculty";  }  }  class Staff extends Employee{    protected String title;      public String toString(){  return "Staff";  }  } |
| 3 | Insert here a screenshot of the output that resulted from running your program: |
| 4 | Write a summary of the design of your program, how you did you code it, and the lessons you learned from the programming assignment here:  I used the DQ discussion for the week to jump start the assignment since it already had a format for creating the Person class, and Student and Employee subclasses. From there I added the Faculty and Staff subclasses to Employee. I wasn’t sure what was meant by making the status variable a constant. I realized the discussion DQ example assigned numeric numbers to FRESHMEN, SOPHOMORE, JUNIOR, SENIOR. These assignments were the constant, and a test program simply has to assign one of these 4 to status at compile time. The other problem I encountered was creating a MyDate class. I assumed MyDate had to be limited to the employee class and its subclasses. Originally I used upcasting to create a MyDate subclass. But as other students pointed out, this violates the “is-a” relationship of a class and its subclass. So I created a class MyDate and an object hireDate as a data field of Employee. For the Faculty ranks, I looked up University Faculty ranks on Wikipedia and created them the same way as the student status. |