**You are to create the following classes:**

**Person**

Name name

Address address

char gender

Double weight

**Rules**: You will make sure that the gender value is either M, F, or O (case does not matter. The M is for Male, the F is for female, and the O is for other.

**Rules**: You will make sure that weight is a value between 10.0 and 900.0

**Rules:** Your toString for a person will return a string as follows:

George W. Bush

444 Dallas Street

Dallas, TX 78963

Gender: Male

Weight: 189.5.

Does not smoke.

**Name**

String first

char initial

String last

**Rules**: You will make sure you save the First and Last name in sentence case.

**Rules**: You will store the initial (should there be one) as a capital letter.

**Rules**: Your toString will return a string as follows depending on initial:

Dennis Hunchuck - or - George W. Bush

**Address**

String street

String city

String postalCode

**Rules:** you will make sure that the postalCode contains only numbers, that there are exactly 5 numbers.

**Rules:** Your toString will return a string as follows:

123 Any Street

Orlando, Fl 12345

**The Program that will use the above classes:**

* You will design a menu system as follows
  + A. Add a President
  + B. Add a Student
  + C. Display all Presidents
  + D. Display all Students
  + F. Display all Students of a Gender
  + G. Display all Presidents from a State
  + Q. Quit the program
* You will create an array to store the information for presidents
* You will create an arrayList to store the information for students
* When the user selects F. you will allow them to pick a gender. You will then display all student records for that gender
* When the user selects G. You will then POP-UP a list of existing States. The user will select one of the existing States and then display all Presidents from that State.
* All menus and other output will be displayed using JOptionPane.

**Deliverables** (Each member of the team needs to upload the same documents)**:**

* Structure charts for each class
* No design tool needs to be delivered (you should still create one) and include it in the project
* Well documented Java code that works.
* You will zip up the project and upload it to Blackboard

**Issues**:

* Do you do this alone or with others? If others, who are they?
* How do I make an array of Presidents?
* How do I make an arrayList of students?
* Where do I place the code/methods?
* How do I address the fact that variables and arrays and arrayList have a scope?
* Strings and Chars
* If you do not finish, you will submit the assignment before Sunday at 11:59 AM.