

Q1) Create a Java project called Lab8-Q1. Inside this project create a class named "Q1" with a main function. Also create a class named "Student".

The main function should have the following lines of code:

```
Student Corey = new Student("Corey Park", 4.0, 90);
Student Don = new Student("Don Draper", 3.6, 60);

Corey.displayStudentProfile();
Don.displayStudentProfile();
```

And the program should output the following:

```
First Name: Corey
Last Name: Park
GPA: 4.0
Year: Senior
```

```
First Name: Don
Last Name: Draper
GPA: 3.6
Year: Junior
```

The class Student should have the following variables.

```
private String fullName;
private String firstName;
private String lastName;
private String gradeYear;
private double gpa;
private int creditsComplete;
```

The constructor will initialize the variables, fullName, gpa and creditsComplete.

The constructor will also parse the the students fullName and split it into the variables firstName and lastName based on white space.

The constructor will use the number of credits completed to compute if the student is a Freshmen (less then 30 credits), Sophomore (less then 60 credits), Junior (less then 90 credits), or a Senior.

The class Student should have a method displayStudentProfile() that prints to the standard output the students First Name, Last Name, GPA, and Year.

Q2) Create a Java project called Lab8-Q2. Inside this project create a class named "Q2" with a main function. Also create a class named "Customer".

The class Customer should have a static variable that counts how many Customer objects have been created.

```
private static int numCustomers = 0;
```

The Customer constructor will increment the variable numCustomers every time a Customer is created.

The main function should have the following lines of code

```
Customer Corey = new Customer("Corey Park");  
Corey.CustomerInfo();
```

```
Customer Peyton = new Customer("Peyton Manning");  
Peyton.CustomerInfo();
```

```
Customer Mario = new Customer("Mario Chalmers");  
Mario.CustomerInfo();
```

And output the following

```
Corey Park has entered the store, there are now 1 people in the store
```

```
Peyton Manning has entered the store, there are now 2 people in the store
```

```
Mario Chalmers has entered the store, there are now 3 people in the store
```

The method CustomerInfo() will print the name of the customer and how many customers are in the store.

Q3) Create a Java project called Lab8-Q3. Inside this project create a class named "Q3" with a main function. Also create a class named "Student".

The main function should have the following lines of code

```
Student Chris = new Student("Chris Chambers" , "Z3453234");  
Chris.StudentProfile();
```

```
Student Tom = new Student();  
Tom.StudentProfile();
```

```
Student.NumStudents();
```

and output the following

```
Name: Chris Chambers  
ZNumber: Z3453234
```

```
Enter the students name:  
Tom Brady
```

```
Enter the students Z number:  
Z3425890
```

```
Name: Tom Brady  
ZNumber: Z3425890
```

```
There are 2 students
```

The class student should have the following variables

```
private static int studentCount = 0;  
private String studentName;  
private String studentZNumber;
```

The constructor for Student should be overloaded. If it is passed two strings as arguments it will assign values to the variables studentName and studentZNumber. If it is passed no arguments then it will prompt the user to enter the Students Name and Z Number.

The static variable studentCount will keep tracking of how many students have been created.

The method StudentProfile() will print out the students name and Z number.

NumStudents() will be a static method that print out how many students have been created.