```
/**
 * Assignment for your lecture 2. Please finish all the questions under 'Assignment'
 * Please try to think the extra credit question.
 * The deadline of this assignment is 09/21/2018 23:59 PST.
 * Please feel free to contact Amanda and Zane for any questions.
 */

class Employee {
	String name;
	int age;
	Gender gender;
	double salary;// salary per month

	// Constructor. Please set all the data in constructor.
	public Employee(String name, int age, Gender gender, double salary) {
		//write your code here
	  This.name = name;
	  This.age = age;
	  This.gender = gender;
	  This.salary = salary;
	}

	// Getter for `name`. Return the current `name` data
	public String getName() {
		//write your code here
	  Return this.name
	}

	// Setter for `name`. Set `name` data
	public void setName(String name) {
		//write your code here
	  This.name = name
	}
	public void raiseSalary(double byPercent) {
	  this.salary = byPersent * this.salary
}

enum Gender {
	MALE,
	FEMALE;
}


public class Assignment2 {
```

```
// Assignment

/**
 * Write a method to calculate the Social Security Tax of an employee and print it.
 * If the salary is less than or equal to 8900, the Social Security Tax is 6.2% of the salary.
 * If the salary is more than 8900, the Social Security Tax is 6.2% of 106,800.
 */
public double socialSecurityTax(Employee employee) {
      //write your code here
      If (employee. Salary <= 8900) {
        double float Tax = employee. Salary * 0.062; }
      else {
        double float Tax = 106800 * 0.062;}

      System.out.println<'' the Social Security Tax is''' + Tax>
}

/**
 * Write a method to calculate an employee's contribution for insurance coverage and print it.
 * Amount of deduction is computed as follows:
 * If the employee is under 35, rate is 3% of salary; if the employee is between 35 and 50(inclusive), rate is 4% of salary;
 * If the employee is between 50 and 60(exclusive), rate is 5% of salary; If the employee is above 60, rate is 6% of salary.
 */
public double insuranceCoverage(Employee employee) {
      //write your code here
    float Contribution
      If (employee.age < 35) {
        Contribution = employee.salary * 0.03; }
      If (employee.age >= 35 && employee.age <= 50) {
        Contribution = employee.salary * 0.04; }
      If (employee.age > 50 && employee.age < 60) {
        Contribution = employee.salary * 0.05; }
      Else {
        Contribution = employee.salary * 0.06;}

System.out.println<" employee's contribution for insurance coverage is" + Contribution>
}

/**
 * Write a method to sort three employees' salary from low to high, and then print their name in order.
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     * For example, Alice's salary is 1000, John's salary is 500, Jenny's salary is 1200, you should print:
     * John Alice Jenny
     */
    public void sortSalary(Employee e1, Employee e2, Employee e3) {
        //write your code here
        If (e1.salary > e2.salary)   {
           If (e3.salary > e1.salary) {
           System.out.println<e3.name +"," e1.name+"," e2.name> ;}
           Else if (e3.salary > e2.salary) {
                System.out.println<e1.name +"," e3.name+"," e2.name> ;}
                Else {
                System.out.println<e1.name +"," e2.name+"," e3.name> ;}

        Else if (e3.salary > e2.salary) {
             System.out.println<e3.name +"," e1.name+"," e2.name> ;}
             Else if (e3.salary > e1.salary) {
             System.out.println<e2.name +"," e3.name+"," e1.name> ;}
                  Else {
                  System.out.println<e2.name +"," e1.name+"," e3.name> ;}
    }

    /**
     * Write a method to raise an employee's salary to three times of his/her original salary.
     * Eg: original salary was 1000/month. After using this method, the salary is 3000/month.
     * Do not change the input of this method.
     * Try to add a new method in Employee class: public void raiseSalary(double byPercent)
     */
    public void tripleSalary(Employee employee) {
        //write your code here
        Employee.raiseSalary(3)
    }


    //Extra credit

    /**
     * I have written some code below. What I want is to swap two Employee objects.
     * One is Jenny and one is John. But after running it, I got the result below:
     * Before: a=Jenny
     * Before: b=John
     * After: a=Jenny
     * After: b=John
     * There is no change after swap()! Do you know the reason why my swap failed?
```

```
     * Write your understanding of the reason and explain it.
     */
    /*In Java pregame, It is call by value instead of call by reference.
      The change of argument(x,y) will not lead to a change of parameter.
      write your understanding here.
    */
    public static void main(String[] args) {
        Employee a = new Employee("Jenny", 20, Gender.FEMALE, 2000);
        Employee b = new Employee("John", 30, Gender.MALE, 2500);
        System.out.println("Before: a=" + a.getName());
        System.out.println("Before: b=" + b.getName());
        swap(a, b);
        System.out.println("After: a=" + a.getName());
        System.out.println("After: b=" + b.getName());
    }

    public static void swap(Employee x, Employee y) {
        Employee temp = x;
        x = y;
        y = temp;
    }
}
```