SALARY AND TAX CALCULATOR

PROJECT OBJECTIVE :

The objective of this project is to calculate the net salary and gross salary of an individual and determine the amount of taxes they need to pay to the government based on various input parameters such as annual salary, HRA (House Rent Allowance), Dearness Allowance (DA), bonuses, and deductions like Provident Fund (PF) and Employee's State Insurance (ESI).

The project takes the following steps to achieve this objective:

1. It prompts the user to enter their annual salary.

2. It asks whether the user lives in a rented house and, if so, calculates the HRA exemption based on certain conditions.

3. It asks whether the user receives Dearness Allowance (DA) and calculates the DA amount.

4. It asks whether the user receives any bonuses and records the bonus amount.

5. It calculates the Provident Fund (PF) deduction based on the user's input.

6. It calculates the Employee's State Insurance (ESI) deduction based on the user's input.

7. Depending on the user's input regarding HRA, DA, and bonuses, it calculates the gross salary.

8. It prompts the user to input their income tax percentage based on their gross salary and calculates the income tax amount.

9. Finally, it calculates and displays the net salary by subtracting the income tax and deductions (PF and ESI) from the gross salary.

PROJECT DESCRITPION:

Our project is to assist individuals in understanding their net salary after accounting for various financial components, including House Rent Allowance (HRA), Dearness Allowance (DA),bonuses, Provident Fund (PF) deductions, and Employees's State Insurance (ESI) deductions. Additionally, the project aims to calculate the income tax liability of the individual based on their gross income.

Key features and Functionality:

1.User Input: The project starts by prompting the user to enter their annual salary.

2.HRA Calculation: It asks the user whether they live in a rented house. If they do, the code calculates the HRA exemption based on predefined conditions, including the rent paid and whether they live in a metropolitan city.

3.DA Calculation: The code then asks if the user receives Dearness Allowance (DA), If they do, it calculates the DA amount both monthly and annually and displays the results.

4.Bonus Input: The project asks if the user receives any bonuses in a year. If they do, the bonus amount is recorded.

5.PF Deduction: The user is prompted to input the Provident Fund (PF) percentage, and the code calculates the monthly and annual PF deductions based on the provided percentage.

6.ESI Deduction:The code also prompts the user to input the Employee's State Insurance (ESI) percentage, and it calculates the monthly and annual ESI deductions based on this input.

7.Gross Salary Calculation: Depending on the user's input for HRA,DA and bonuses the code calculates the gross annual salary.

8.Income Tax Calculation: The project requests the user to input their income tax percentage based on their gross salary. It provides predefined income tax slabs and calculates the income tax amount. The user's input percentage is applied to the gross salary, and the final income tax amount is displayed.

9.Net Salary Calculation: Finally the code computes the net salary by subtracting the income tax amount ,PF deductions, and ESI deductions from the gross salary. The net salary is then displayed.

10.Scenario Handling: The code accounts for different scenarios based on the user's inputs. It calculates the net salary based on whether the user receives HRA,DA and bonuses.

SAMPLE DATA:

```
Please enter your annual salary in numbers :
276000
Do you live in a rented house?(Answer with either 'YES' or 'NO')
yes
Enter the rent you pay per month:
12000
Enter the HRA you receive per month:
15000
The gross(for 12 months) HRA is : 180000.0
Do you live in a metropolitan city:(either 'YES' or 'NO')
yes
The HRA Exception you can detuct is: 9700.0
Do you receive Dearness Allowance ?
Answer with using 'Yes' or 'No'
yes
The Dearness Allowance you receive per month is : 8740.0
The Dearness Allowance you receive in a year is : 104880.0
Do You receive any bonuses in a year('Yes' or 'No') :
```

yes
Enter the Bonus amount:
2000
Enter the PF(Provident Fund Percentage) :
The standard range is 38%
38
The PF(Provident Fund) Detuction for a month is 8740.0
The PF(Provident Fund) Detuction for a year is 104880.0
Enter The ESI(Employee's state insurance) Percentage :
The standard value is 0.75
0.75
The ESI deduction for a month is 17250.0
The Gross ESI deduction is 207000.0
We shall move to the Gross Salary Calculations
The Gross Salary is : 562880.0
On the basis of your gross salary,provide your income tax percentage:
If Gross Salary is in the range of 0 to 250000,there is no income tax
If Gross Salary is in the range of 250000 to 500000,there is 5%
If Gross Salary is in the range of 500000 to 750000,there is 10%
If Gross Salary is in the range of 750000 to 1000000,there is 15%
If Gross Salary is in the range of 1000000 to 1250000,there is 20%
If Gross Salary is in the range of 1250000 to 1500000,there is 25%
If Gross Salary more than 1500000,there is 30%
10
Your Net Salary is :225900.0

DATA COLLECTION SOURCES:

The data collection sources as it primarily takes user input directly from the console using the `Scanner` class. In this project, the data sources are the user themselves, who manually enter their salary, rent, HRA, Dearness Allowance, bonus amount, PF percentage, ESI percentage, and income tax percentage when prompted by the program.

The data collection sources in this project are:

1. User Input: The program interacts with the user through the command-line interface (console) and collects various financial data from the user, such as salary, rent, allowances, and deductions. Users are prompted to enter this data during program execution.

Here's an example of how the program collects data from the user:

Please enter your annual salary in numbers: 60000

Do you live in a rented house? (Answer with either 'YES' or 'NO'): YES

Enter the rent you pay per month: 15000

Enter the HRA you receive per month: 10000

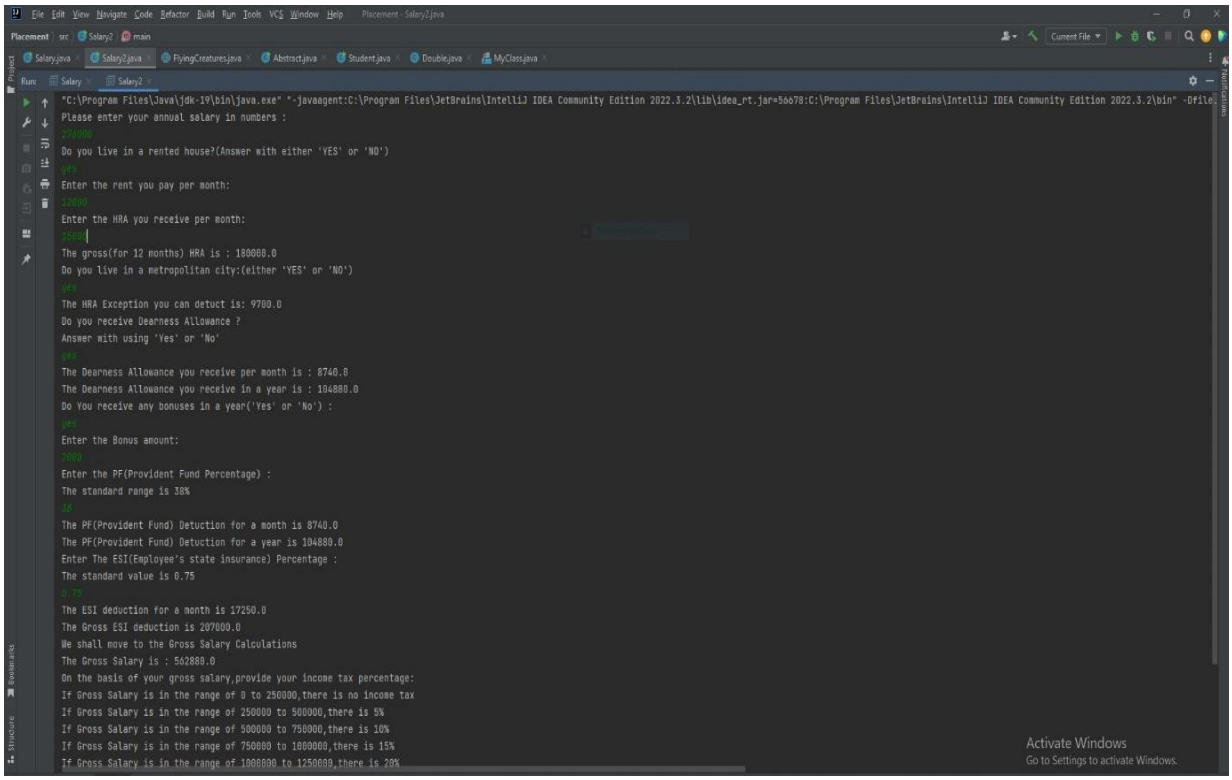
Enter the PF (Provident Fund) Percentage: 10

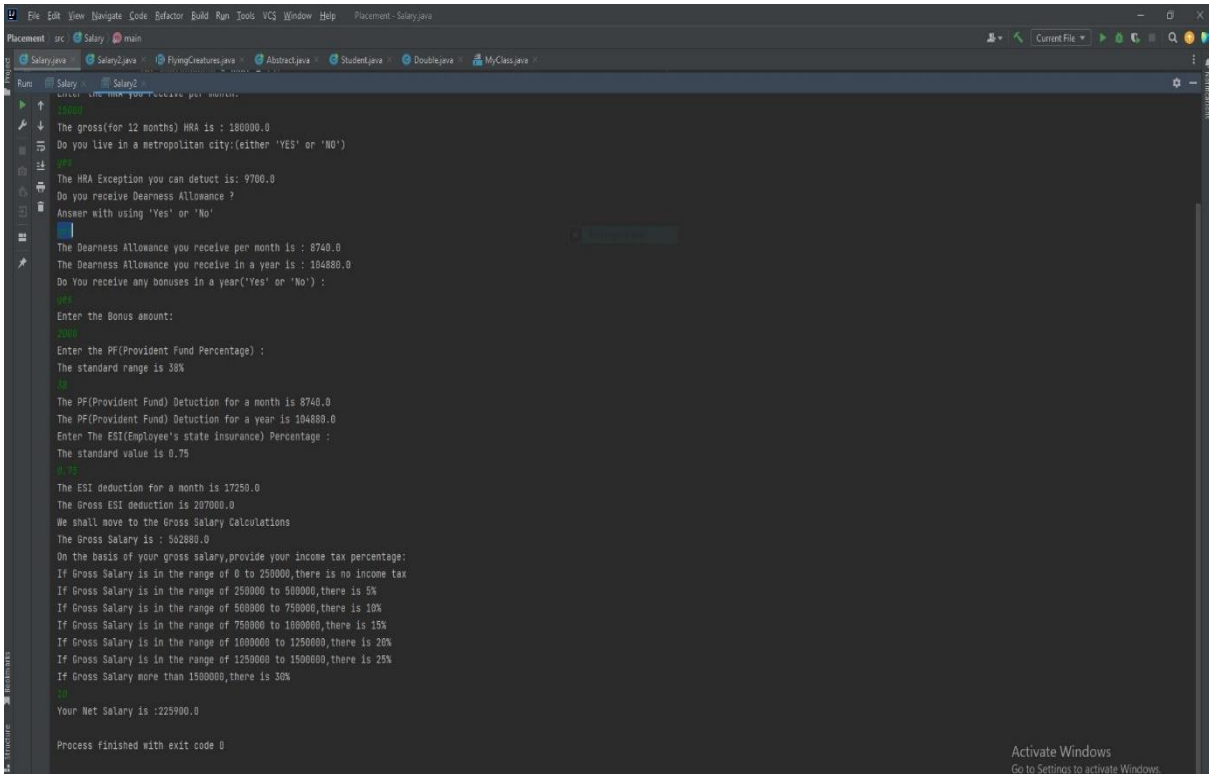
Enter The ESI (Employee's State Insurance) Percentage: 1

On the basis of your gross salary, provide your income tax percentage: 5

The user's responses to these prompts are used as input data for calculating the net salary and taxes.

SCREENSHOTS:





SAMPLE CODE:

```
import java.awt.*;
import java.lang.Double;
import java.util.*;
import java.math.*;
import java.lang.*;
import java.util.List;


//The below program is to calculate your net salary and gross salary and calculate
//the amount of taxes you pay to the Government.
class Salary2 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        List<Double> hrafinal = new ArrayList<>();
        List<Double> dafinal = new ArrayList<>();
```

```
List<Double> bonusfinal = new ArrayList<>();
List<Double> pffinal = new ArrayList<>();
List<Double> esifinal = new ArrayList<>();
System.out.println("Please enter your annual salary in numbers : ");
double salary = scanner.nextDouble();
double monthly = salary/12;
if (salary >= 0) {
    System.out.println("Do you live in a rented house?(Answer with either 'YES' or
'NO')");
    String input = scanner.next();
    String input1 = input.toUpperCase();
    if(input1.contains("YES")){
        System.out.println("Enter the rent you pay per month: ");
        double rent  = scanner.nextDouble();
        double rentperyear = rent * 12;
        System.out.println("Enter the HRA you receive per month:");
        double hra = scanner.nextDouble();
        double hraperyear = hra * 12;
        System.out.println("The gross(for 12 months) HRA is : "+hraperyear);
        hrafinal.add(hraperyear);
        System.out.println("Do you live in a metropolitan city:(either 'YES' or 'NO')");
        String hrainput = scanner.next().toUpperCase();
        if(hrainput.contains("YES")){
            double metro = 0.50 * monthly;
            double arg1 = rent - (0.10 * monthly);
            List<Double> hracal = new ArrayList<>();
            hracal.add(hra);
            hracal.add(metro);
            hracal.add(arg1);
            double Actualhra = Collections.min(hracal) ;
            System.out.println("The HRA Exception you can detuct is: " + Actualhra);
```

```
    } else if (hrainput.contains("NO")) {
        double metro1 = 0.40 * monthly;
        double arg2 = rent - (0.10 * monthly);
        List<Double> hracal2 = new ArrayList<>();
        hracal2.add(metro1);
        hracal2.add(hra);
        hracal2.add(arg2);
        double Actualhra2 = Collections.min(hracal2) ;
        System.out.println("The HRA Exception you can detuct is: "+Actualhra2);
    }
}
else {
    System.out.println("You can move to Dearness Allowance Calculation");
}
System.out.println("Do you receive Dearness Allowance ? ");
System.out.println("Answer with using 'Yes' or 'No'");
String dainput = scanner.next().toUpperCase();
if(dainput.contains("YES")){
    double DA = 0.38 * monthly;
    double DAgross = DA * 12;
    System.out.println("The Dearness Allowance you receive per month is : "+DA);
    System.out.println("The Dearness Allowance you receive in a year is : "+DAgross);
    dafinal.add(DAgross);
}
else if (dainput.contains("NO")) {
    System.out.println("You can move to the next part.");
}
System.out.println("Do You receive any bonuses in a year('Yes' or 'No') : ");
String boinput = scanner.next().toUpperCase();
if(boinput.contains("YES")){
```

```
            System.out.println("Enter the Bonus amount: ");
            double bonus = scanner.nextDouble();
            bonusfinal.add(bonus);
        } else if (boinput.contains("NO")) {
            System.out.println("You can move to the deductions part.");
        }
        System.out.println("Enter the PF(Provident Fund Percentage) : ");
        System.out.println("The standard range is 12%");
        double pfpercent= scanner.nextDouble() * 0.01;
        double pfmonth = pfpercent * monthly;
        double pfyear = pfpercent * salary;
        pffinal.add(pfyear);
        System.out.println("The PF(Provident Fund) Detuction for a month is "+pfmonth);
        System.out.println("The PF(Provident Fund) Detuction for a year is "+pfyear);
        System.out.println("Enter The ESI(Employee's state insurance) Percentage : ");
        System.out.println("The standard value is 0.75");
        double esipercent  = scanner.nextDouble() * 0.01;
        double esimonth = esipercent * monthly;
        double esiyear = esipercent *salary;
        esifinal.add(esiyear);
        System.out.println("The ESI deduction for a month is "+esimonth);
        System.out.println("The Gross ESI deduction is "+esiyear);
        System.out.println("We shall move to the Gross Salary Calculations");
        if(input1.contains("YES") && (dainput.contains("YES"))
&&(boinput.contains("YES"))){
            double grosssalary = salary + hrafinal.get(0) + dafinal.get(0)+bonusfinal.get(0);
            System.out.println("The Gross Salary is : "+grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
```

```
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal  = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :"+netsalary);
        }
        if(input1.contains("NO") && (dainput.contains("YES"))
&&(boinput.contains("YES"))){
            double grosssalary = salary + dafinal.get(0)+bonusfinal.get(0);
            System.out.println("The Gross Salary is : "+grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
```

```
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal  = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :"+netsalary);
        }
        if(input1.contains("YES") && (dainput.contains("YES"))
&&(boinput.contains("NO"))) {
            double grosssalary = salary + hrafinal.get(0) + dafinal.get(0);
            System.out.println("The Gross Salary is : " + grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :" + netsalary);

        }
```

```
        if(input1.contains("NO") && (dainput.contains("YES"))
&&(boinput.contains("NO"))){
            double grosssalary = salary + dafinal.get(0);
            System.out.println("The Gross Salary is : "+grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal  = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :"+netsalary);
        }
        if(input1.contains("YES") && (dainput.contains("NO"))
&&(boinput.contains("YES"))){
            double grosssalary = salary + hrafinal.get(0) + bonusfinal.get(0);
            System.out.println("The Gross Salary is : "+grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
```

```
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal  = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :"+netsalary);
          }
         if(input1.contains("NO") && (dainput.contains("NO"))
&&(boinput.contains("YES"))){
            double grosssalary = salary +bonusfinal.get(0);
            System.out.println("The Gross Salary is : "+grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
```

```
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal  = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :"+netsalary);
        }
        if(input1.contains("YES") && (dainput.contains("NO"))
&&(boinput.contains("NO"))) {
            double grosssalary = salary + hrafinal.get(0) ;
            System.out.println("The Gross Salary is : " + grosssalary);
            double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
            System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
            System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
            System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
            System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
            System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
            System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
            System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
            System.out.println("If Gross Salary more than 1500000,there is 30%");
            double incometax = scanner.nextDouble() * 0.01;
            double ITfinal = sample * incometax;
            double netsalary = sample - ITfinal;
            System.out.println("Your Net Salary is :" + netsalary);

        }
        if(input1.contains("NO") && (dainput.contains("NO"))
&&(boinput.contains("NO"))){
```

```
            double grosssalary = salary ;
             System.out.println("The Gross Salary is : "+grosssalary);
             double sample = grosssalary - pffinal.get(0) - esifinal.get(0);
             System.out.println("On the basis of your gross salary,provide your income tax
percentage: ");
             System.out.println("If Gross Salary is in the range of 0 to 250000,there is no
income tax");
             System.out.println("If Gross Salary is in the range of 250000 to 500000,there is
5%");
             System.out.println("If Gross Salary is in the range of 500000 to 750000,there is
10%");
             System.out.println("If Gross Salary is in the range of 750000 to 1000000,there is
15%");
             System.out.println("If Gross Salary is in the range of 1000000 to 1250000,there is
20%");
             System.out.println("If Gross Salary is in the range of 1250000 to 1500000,there is
25%");
             System.out.println("If Gross Salary more than 1500000,there is 30%");
             double incometax = scanner.nextDouble() * 0.01;
             double ITfinal  = sample * incometax;
             double netsalary = sample - ITfinal;
             System.out.println("Your Net Salary is :"+netsalary);
         }
```

RESULTS:

1. Gross Salary Calculation:

- Gross Salary is calculated based on the user's inputs for salary, HRA, DA, and bonus.
- Components of Gross Salary include the user's annual salary, HRA, DA, and any bonus received.

2. Deductions:

- Deductions are made for Provident Fund (PF) and Employee's State Insurance (ESI).
- Deductions are calculated both on a monthly and yearly basis.
- PF deduction is determined by the user-provided PF percentage.
- ESI deduction is determined by the user-provided ESI percentage.

3. Net Salary Calculation:

- Net Salary is computed by subtracting the deductions (PF and ESI) from the Gross Salary.
- The result represents the individual's take-home pay after accounting for deductions.

4. Income Tax Estimation:

- Income Tax is estimated based on the user-provided income tax percentage.
- The income tax is applied to the remaining income after deductions.
- The calculated income tax amount is subtracted from the Net Salary to arrive at the final Net Salary.

5. Sample Calculation:

- A sample calculation illustrates the results for a hypothetical individual with specific input values.
- This includes a breakdown of Gross Salary, deductions, income tax, and Net Salary for the hypothetical individual.

These results provide an overview of how the project calculates an individual's net salary and estimates income tax based on their financial inputs.

FINDINGS:

1. Gross Salary Calculation:

- The project calculates the Gross Salary by considering the user's annual salary, HRA (House Rent Allowance), DA (Dearness Allowance), and any bonus received.

- Gross Salary is an important financial indicator that represents the total income before any deductions.

2. Deductions:

- Deductions for Provident Fund (PF) and Employee's State Insurance (ESI) are included in the project.

- The user can input the PF percentage and ESI percentage, which affect the monthly and yearly deductions.

- These deductions are essential for compliance with government regulations and retirement savings.

3. Net Salary Calculation:

- Net Salary, also known as take-home pay, is calculated by subtracting the deductions (PF and ESI) from the Gross Salary.

- Net Salary represents the actual income an individual receives after accounting for mandatory deductions.

4. Income Tax Estimation:

- The project estimates income tax based on a user-provided income tax percentage.

- Income tax is a significant financial obligation and is applied to the remaining income after deductions.

- The calculated income tax amount is subtracted from the Net Salary to determine the final Net Salary.

5. Sample Calculation:

- The project includes a sample calculation to demonstrate how these calculations work for a hypothetical individual.

- It showcases a breakdown of Gross Salary, deductions, income tax, and Net Salary for a specific scenario.

6. User-Friendly Input:

- The project prompts the user for essential financial information, making it easy for individuals to calculate their net salary and estimate income tax.

7. Customizable Tax Calculation:

- The user can input their own income tax percentage, allowing for customization based on local tax regulations or personal circumstances.

8. Useful Financial Tool:

- This project serves as a valuable financial tool for individuals to understand their net income after various deductions and taxes.

9. Flexibility Based on Inputs:

- The project adapts its calculations based on user inputs, such as HRA, DA, bonuses, and housing situation, ensuring accuracy in salary estimation.

10. Transparency in Tax Calculation:

- By providing income tax calculations, the project helps individuals understand how their tax liability impacts their take-home pay.