



# Institute of Computer Engineering Technology

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## iCET Certified Developer

## COURSE WORK

Assignment	Programming Fundamentals
Batch No	iCD 113
Name	Flow Control with JAVA Conditional Statement
Ass. Date	03rd September 2024

## Salary Information System

This is a very simple application to calculate three different types of salary-related information: income tax, annual bonus, and loan amounts. When running this program, prompt the window to get user input for select option (Figure 1). After getting option number from user, the system should prompt the selected option.

```
-----  
|                               |  
|          SALARY INFORMATION SYSTEM          |  
|-----|  
  
[1] Calculate Income Tax  
[2] Calculate Annual Bonus  
[3] Calculate Loan amount  
  
Enter an option to continue > 
```

Figure 1

## 01. Calculate Income Tax

The income tax that an employee has to pay based on their salary. The percentage of monthly Income Tax is given below.

- Income Tax is charged above Rs.100 000 and no tax is charged up to Rs.100 000.
- Rs.100 000 to the 1st Rs.41 667 (100 000 – 141 667) - 6%
- Rs.141 667 to the 2nd Rs.41 667 (141 667 – 183 333) - 12%
- Rs.183 333 to the 3rd Rs.41 667 (183 333 – 225 000) - 18%
- Rs. 225 000 to the 4th Rs.41 667 (225 000 – 266 667) - 24%
- Rs.266 667 to the 5th Rs.41 667 (266 667 – 308 333) - 30%
- More than Rs.308 333 - 36%

Monthly Income	Tax rate	Tax
100,000	NIL	
141,667	6%	2,500
183,333	12%	7,500
225,000	18%	15,000
266,667	24%	25,000
308,333	30%	37,500
350,000	36%	52,500
450,000	36%	88,500
550,000	36%	124,500
650,000	36%	160,500
750,000	36%	196,500
900,000	36%	250,500
1,000,000	36%	286,500

Several monthly incomes and the total Income Tax are given in the above table. When the user input Employee name and salary, system should print monthly Income tax(Figure 2).

Ex: - If an employee receives Rs.250 000 salary per month, his total amount of monthly Income Tax is Rs.21 000.

```

-----
|                               Calculate Income Tax                               |
-----
Input Employee name   - Rusiru
Input Employee salary - 250000

You have to pay Income Tax per month: 21000

```

Figure 2

## 02. Calculate Annual Bonus

The annual bonus that an employee is eligible for based on their salary. The following table shows how bonus is calculated for Employees. When the user input Employee name and salary, system should print annual bonus (figure 3).

Monthly Income	Annual Bonus
Less than Rs.100 000	Rs.5000
Rs.100 000 - Rs.199 999	10%
Rs.200 000 - Rs.299 999	15%
Rs.300 000 - Rs.399 999	20%
More than Rs.400 000	35%

```
-----
|                               Calculate Annual Bonus                               |
|-----|

Input Employee name   - Rusiru
Input Employee salary - 250000

Annual bonus         - 37500.0
```

Figure 3

### 03. Calculate Loan amount

First, the user should enter employee's name and monthly salary. Employee loan annual interest rate is 15%. The user should enter the number of years. The maximum limit that an employee can take a loan is to pay an installement of 60% of the monthly salary and employee salary should grater than Rs.50000 to get a loan (Figure 5). The maximum number of the year is 5. Finally , system should calculate the loan amount that can be obtained according to the employee's salary (Figure 4).

#### Lease Payment Calculation Formula

$$\text{Loan amount} = \text{Monthly installment} \times \frac{(1 - (1 / (1 + (r/12))^n))}{(r / 12)}$$

- **n – number of months**
- **r - annual interest rate**

When the user input the employee salary and the number of year, we can calculate loan amount by using leasing formula. Remember, loan amount round of nearest 1000.

```

-----
|                               Calculate Loan amount                               |
-----
Input Employee name   - Rusiru
Input Employee salary - 250000
Enter number of year : 3

You can get Loan Amount : 4327000

```

Figure 4

```
-----  
|                               Calculate Loan amount                               |  
-----  
Input Employee name   - Shehan  
Input Employee salary - 45000  
    You can not get a loan because your salary lessthan Rs.50 000...
```

Figure 5