Print Bonus

Ex1 salary = 80,000
years = 7

bonus = $80{,}000 * \frac{5}{100} = 4000$ ₹

Ex2 salary = 100000
years = 4

bonus = 0

code

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int salary = scn.nextInt();
    int years = scn.nextInt();
    int bonus = 0;
    if ( years > 5 ) {
        bonus = (salary * 5) / 100;
    }
    System.out.println(bonus);
}
```

⇒ Variation of if else condition

→ If else ladder

```
if ( cond 1) {
    // Statement 1
} else if ( cond 2 ) {
    // Statement 2
} else if ( cond 3 ) {
    // Statement 3
} else if ( cond 4 ) {
    // Statement 4
} else {
    // Statement 5
}
```

Note:-

1) if else ladder, can print only 1 of the statement
2) always checks from top to bottom.
3) if cond^n is mandatory, all others are optional
4) In if else ladder, we can have only 1 if cond and only 1 else cond^n

Ex:-

```
if( 2>7 ){
    Syso("A");
} else if( 3==4 ){
    Syso("B");
} else if( 2<4 ){
    Syso("C");
} else if( 5>3 ){
    Syso("D");
} else {
    Syso("E");
}
```

o/p

C

Grade the student 1

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int marks = scn.nextInt();

    if ( marks > 90 ) {
        System.out.println("excellent");
    } else if ( marks > 80 && marks <= 90 ) {
        System.out.println("good");
    } else if ( marks > 70 && marks <= 80 ) {
        System.out.println("fair");
    } else if ( marks > 60 && marks <= 70 ) {
        System.out.println("meets expectations");
    } else if ( marks > 40 && marks <= 60 ) {
        System.out.println("below par");
    } else {
        System.out.println("failed");
    }
}
```

Print the oldest among three

A = 23

B = 24

C = 20

Logic

```
if ( A > B && A > C ){
        Syso(A);
} else if ( B > A && B > C ) {
        Syso(B);
} else if ( C > A && C > B ){
        Syso(C);
}
```

Code

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int A = scn.nextInt();
    int B = scn.nextInt();
    int C = scn.nextInt();

    if ( A > B && A > C ) {
        System.out.println("A");
    } else if ( B > A && B > C ) {
        System.out.println("B");
    } else if ( C > A && C > B ) {
        System.out.println("C");
    }
}
```

⟹ Nested if else // one inside another

```
if ( cond 1 ) {
    if ( cond 2 ) {
        // statement 1 (A)
    } else {
        // statement 2 (B)
    }
} else {
    if ( cond 3 ) {
        // statement 3 (C)
    } else {
        // statement 4 (D)
    }
}
```

Quel

statement 1 → cond1 && cond2

1) cond1 && !cond2 , B

2) !cond1 && cond3 , C

Rich Adult Young

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int age = scn.nextInt();
    int salary = scn.nextInt();

    if ( age > 40 ) {

        if (salary >= 30000) {
            System.out.println("You are rich and adult");
        } else {
            System.out.println("You are an adult");
        }

    } else {

        if ( salary >= 12000 ) {
            System.out.println("You are rich and young");
        } else {
            System.out.println("You are young");
        }

    }
}
```