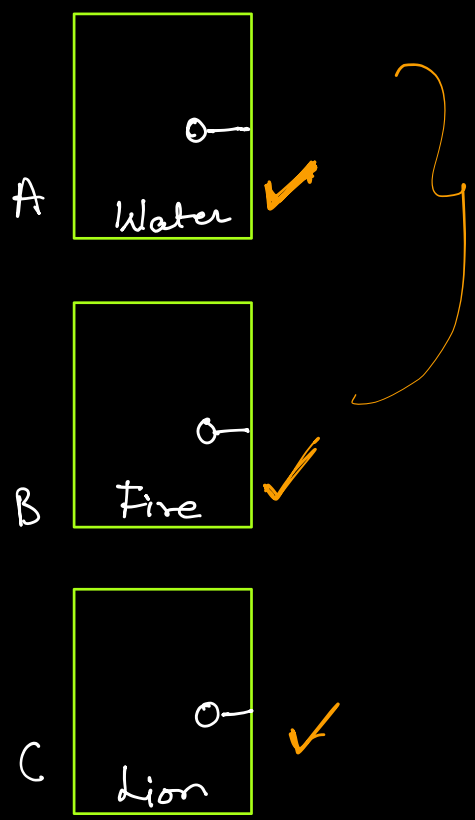
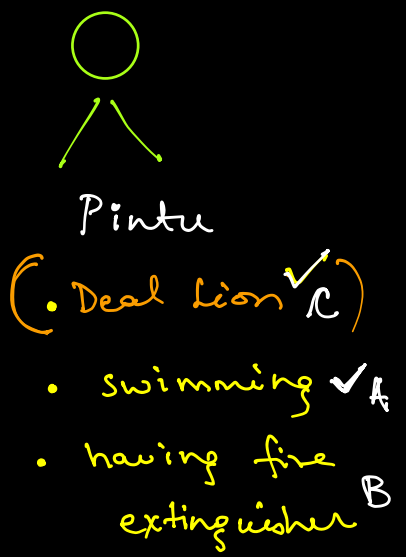
Decision Making.





If - condition

```
if ( testCondition ) {
    → System.out.println( );
}
```

true
false

```
lic class Main {
public static void main(String[] args) {
    int num = 12;
    if(num > 0){
        System.out.println("Positive Number");
    }
    System.out.println("Code outside the if statement");
}
```

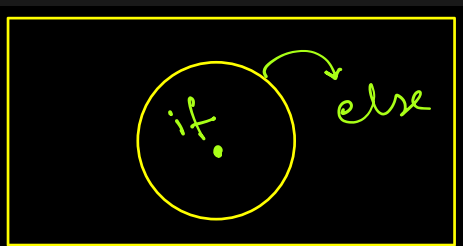
12

→ true

```
lic class Main {
public static void main(String[] args) {
    int num = -12;
    if(num > 0){
        System.out.println("Positive Number");
    }
    System.out.println("Code outside the if statement");
}
```

→ false

skip



if $x > 12$

else $x \leq 12$

100 →

25 - A

75 - B

if $x > 2$

else $x \leq 2$

```java
int num = -12;
if(num > 0){
    System.out.println("Positive Number");
}else{
    System.out.println("Negative Number");
}
System.out.println("Code outside the if statement");
```

-12 > 0 → false

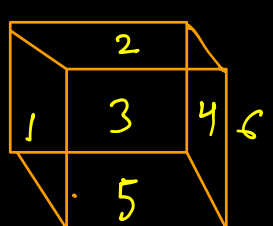
memory: num = -12

skip

Negative Number

Code outside the if statement.

```java
int num = 0 ;
if(num >= 0){
    System.out.println("Zero Or Positive Number");
}else{
    System.out.println("Negative Number");
}
System.out.println("Code outside the if statement");
```



6 → cases

Case-1 {
    print(Hi);
}

Case-2 {
    print (Hello);
}

:
:

6 cases

```java
Scanner scn = new Scanner(System.in);
int dice = scn.nextInt();
if(dice == 1){
    System.out.println("Hi");
}
if(dice == 2){
    System.out.println("Hello");
}
if(dice == 3){
    System.out.println("Hello3");
}
if(dice == 4){
    System.out.println("Hello4");
}
if(dice == 5){
    System.out.println("Hello5");
}
if(dice == 6){
    System.out.println("Hello6");
}
```

false → skip

false → skip

false → skip

false → skip

true

false → skip

Memory

5

dice

Output

Hello5

```java
class Main {
public static void main(String[] args) {
  // if else ladder
  Scanner scn = new Scanner(System.in);
  int dice = scn.nextInt();
  if(dice == 1){
      System.out.println("Hi");
  }else if(dice == 2){
      System.out.println("Hello");
  }else if(dice == 3){
      System.out.println("Hello3");
  }else if(dice == 4){
      System.out.println("Hello4");
  }else if(dice == 5){
      System.out.println("Hello5");
  }else if(dice == 6){
      System.out.println("Hello6");
  }else{
      System.out.println("Invalid Dice Number");
  }
```

skip

skip

skip

True

skip

Memory

4

dice

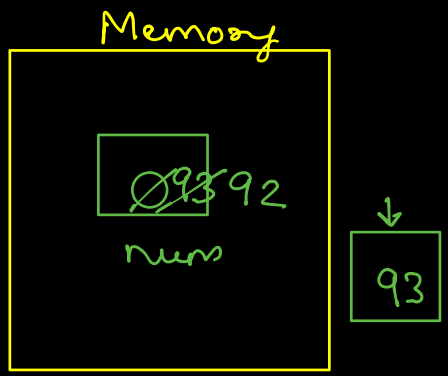
Output

Hello4

```
.class Main {
blic static void main(String[] args) {
  // if else ladder
  Scanner scn = new Scanner(System.in);
  int num = scn.nextInt();

  if(num % 2 == 0){
      System.out.println("Even No.");
  }else{
      System.out.println("Odd No.");
  }
```

skip



Adult or not 1

Problem | Submissions | Leaderboard | Discussions

You will be given the age of a person as an integer input, you need to print "Adult" if the age is greater than or equal to 18 and print "Below age" if the age is below 18.

Input Format

For each test case, you will get the age of a person as an integer input.

Scanner → input
int age → input
if(age ≥ 18)
    print Adult
else
    print "Below age"

```java
    /* Enter your code here. Read input fr
    Scanner scn = new Scanner(System.in);
    int age = scn.nextInt();
    if(age >= 18){
        System.out.println("Adult");
    }else{
        System.out.println("Below age");
    }
}
```

if-else

```java
/* Enter your code here. Read input from STDIN. Print outpu
Scanner scn = new Scanner(System.in);
int age = scn.nextInt();
System.out.println(age >= 18 ? "Adult" : "Below age");
```

test cond if else

"Ternary Operator" → if-else

(test cond) ? '1st' : '2nd' ;

true → 1st

false → 2nd

HW_High Sum or Low Sum

Problem | Submissions | Leaderboard | Discussions

sum = x+y

You will get two integer inputs x and y, you need to print "High Sum" if sum is greater than or equal to 100, and print "Low Sum" otherwise.

if (sum ≥ 100) → High Sum

else → Low Sum

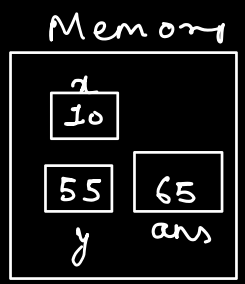
Input Format

You will get the value of x in the first line, You will get the value of y in the second line.

```
public static void main(String[] args) {
    /* Enter your code here. Read input fr
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt(); 10
    int y = scn.nextInt(); 55
    int ans = x + y; → 65
    if(ans >= 100){ → false
        System.out.println("High Sum"); → skip
    }else{
        System.out.println("Low Sum");
    }
}
```

sum

Memory



Grade the student 1

Problem | Submissions | Leaderboard | Discussions

You are given marks of a student as an integer input. You need to print according to the following rules: 1 for marks above 90, print excellent. 2 for marks above 80 and less than equal to 90, print good. 3 for marks above 70 and less than equal to 80, print fair. 4 for marks above 60 and less than equal to 70, print meets expectations. 5 for marks above 40 and less than equal to 60, print below par. 6 print failed if none of the above conditions follow.

Scanner

int marks → input

if marks > 90 → "excellent"

else if marks > 80 && marks ≤ 90 → good

" " > 70 && " ≤ 80 → fair

" " > 60 && " ≤ 70 → "meets expectat

" " > 40 && ≤ 60 → below par

else → print "failed";

```java
    Scanner scn = new Scanner(System.in);
    int m = scn.nextInt();

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

excellent

failed

Shop Discount

Problem | Submissions | Leaderboard | Discussions

A shop will give a discount of 10% on the total cost if the cost of the quantity purchased is more than 1000. a. Ask user for the number of units b. Suppose, one unit will cost 100. c. Judge and print total cost for the user in the integer format.

Input Format

For each test case, You will be given the number of units in the integer format.

unit = 11

11 → price

10 → price

Total = unit × Cost of one Unit

= 11 × 100

= 1100 − 110 = 990

1000

```
if (total > 1000)
    int discount = (total * 10)/100;
    cost = cost - discount;
    print (cost);
```

Scanner class

- int units → input
- int cost = unit × 100;

```
if (cost > 1000) {
    int discount = (cost × 10)/100;
    cost = cost - discount;
}
print (cost);
```

```
/* Enter your code here. Read input from STDIN
Scanner scn = new Scanner(System.in);
int units = scn.nextInt();
int cost = units * 100;
if(cost > 1000){
    int discount = (cost * 10)/100;
    cost = cost - discount;
}
System.out.println(cost);
}
```

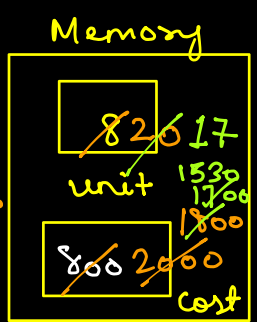
20 → 17

2000 → 1700

2000 × 10/100 = 200

2000 − 200 ; = 1800

800



1700 × 10/100 = 170

1800 − 170 = 1530

1700 − 170 = 1530