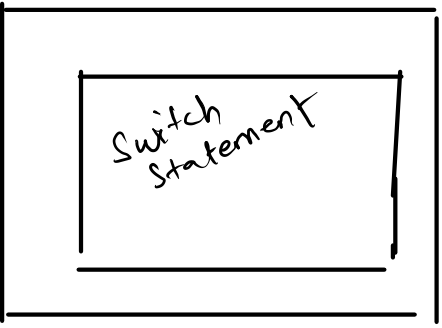
Conditional Statements

Switch Statements.

Cond^{n}. state.



- if
- else if
- else

n = 2

```java
{
    public static void main(String[] args) {
        int n = 2;

        if(n == 1){
            System.out.println("one");
        }
        else if(n == 2){
            System.out.println("two");
        }
        else if(n == 3){
            System.out.println("three");
        }
        else{
            System.out.println("none of the above")
        }
    }
}
```

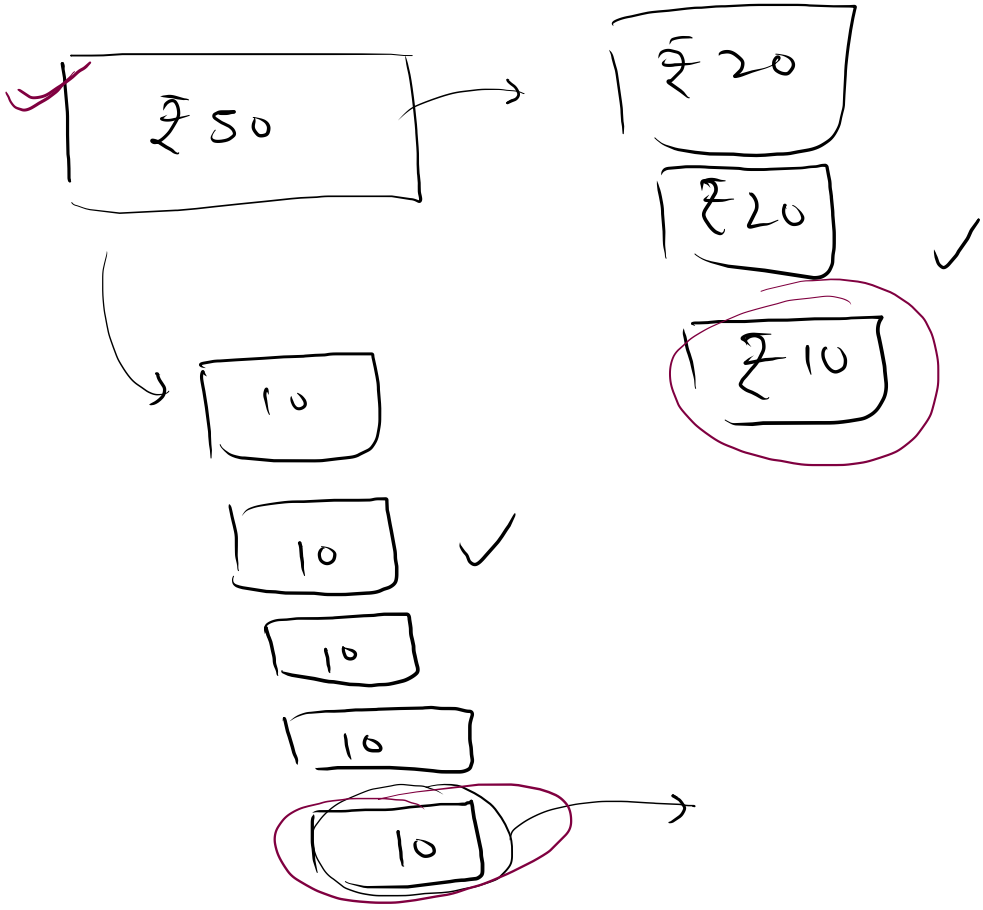
```java
        switch(n){
            case 1:
                System.out.println("one");
                break;
            case 2:
                System.out.println("two");
                break;
            case 3:
                 System.out.println("three");
                break;
            default:
                System.out.println("none of the above");

        }
```

→ what we should apply?

→ break

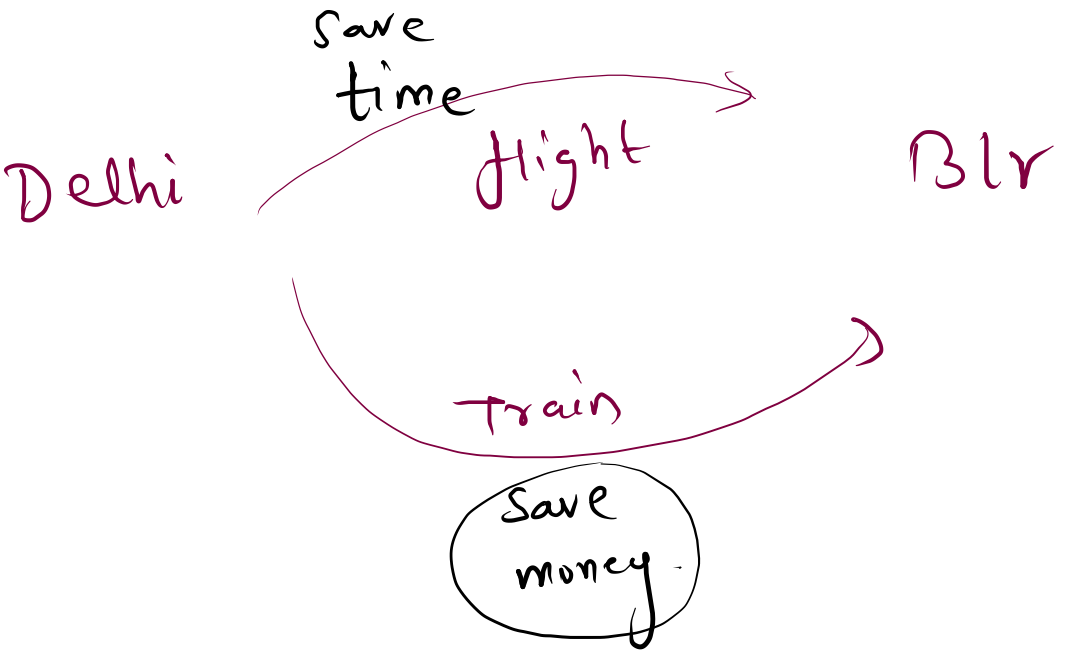
→ int / char / string.

→ why learn switch when if else there



Juice. → ₹50

Pen → ₹10


save
time
Delhi
flight
Blr
train
save
money

Grade the student-2

Problem | Submissions | Leaderboard | Discussions

You are given a character **ch** which represents a grade of a student in a course. The valid grades are A, B, C, and F. Your task is to print a message based on the grade using a **switch statement**.

If the grade is A, print **Excellent!**.

If the grade is B, print Well done!.

If the grade is C, print You passed!.

If the grade is F, print Better luck next time!.

If the grade is not one of the valid options, print Invalid grade.

Sample Input 0

```
B
```

Sample Output 0

```
Well done!
```

```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        char grade = scn.next().charAt(0);

        switch(grade){
            case 'A':
                System.out.println("Excellent!");
                break;
            case 'B':
                System.out.println("Well done!");
                break;
            case 'C':
                System.out.println("You passed!");
                break;
            case 'F':
                System.out.println("Better luck next time!");
                break;
            default:
                System.out.println("Invalid grade");
        }

    }
```

Switch Calculator 1

Problem | Submissions | Leaderboard | Discussions

You are given integer inputs **N** , **a** and **b**. perform operations on **a** and **b** for different value of **N** like :-

If value of **N** is **10** -> **a + b**;

If value of **N** is **20** -> **a - b**;

If value of **N** is **30** -> **a * b**;

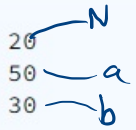
If value of **N** is **40** -> **a % b**;

If value of **N** is **50** -> **a / b**;

else print **Enter a valid number**.

switch(N)

Sample Input 0



Sample Output 0

```
20
```

```java
public class Solution {
    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int N = scn.nextInt();
        int a = scn.nextInt();
        int b = scn.nextInt();
        switch(N){
            case 10:
                System.out.println(a + b);
                break;
            case 20:
                System.out.println(a - b);
                break;
            case 30:
                System.out.println(a * b);
                break;
            case 40:
                System.out.println(a % b);
                break;
            case 50:
                System.out.println(a / b);
                break;
            default:
                System.out.println("Enter a valid number");
        }
    }
}
```

Male or Female

Problem | Submissions | Leaderboard | Discussions

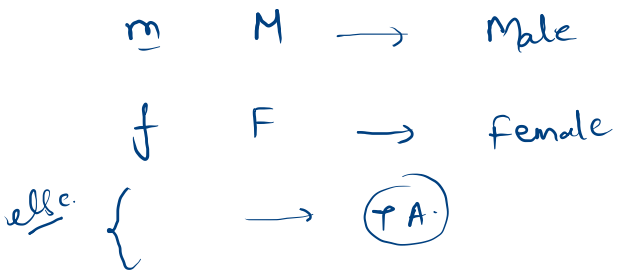
Take in a ch as a character input from the user, and print **You are a male** if M or m is taken as input. And print **You are a female** if F or f is taken as input. And if some other character is taken as an input, then print Type again.

Sample Input 0

```
M
```

Sample Output 0

```
You are a male
```



```java
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        char ch = scn.next().charAt(0);

        if(ch == 'm' || ch == 'M'){
            System.out.println("You are a male");
        }
        else if(ch == 'f' || ch == 'F'){
            System.out.println("You are a female");
        }
        else{
            System.out.println("Type again");
        }

    }
}
```

```java
public class Main
{
    public static void main(String[] args) {
        char ch = 'F';

        if(ch >= 'a' && ch <= 'z'){
            System.out.println("small case");
        }
        else if(ch >= 'A' && ch <= 'Z'){
            System.out.println("capital case");
        }


    }
}
```

jumping character

Take in a character as an input and manipulate it as given under

1. Condition 1: If the entered character is a **small-case** character, then

A. If the character is from character **a** and till the character **w**, both **a** and **w** included, then Jump **three** times to **right** and print the resulting character as explained in the example below,

For eg. If **a** is given then print **d**, If **b** is given then print the character **e**, If **c** is given then print the character **f**, If **w** is given then print the character **z**.

B. Else print the string **Can't jump**.

2. Condition 2: If the entered character is a **capital-case** character, then

A.If the character is from character **D** and till the character **Z**, both **D** and **Z** included, then Jump **three** times to **left** and print the resulting character as explained in the example below,

For eg. If **D** is given then print **A**, If **E** is given then print the character **B**, If **F** is given then print the character **C**, If **Z** is given then print the character **W**.

B. Else print the string **Can't jump**.

eg. ch = 'f'

1. Small case

'a' → 'w'

else 'x' 'y' 'z' → else → Can't Jump.

2. capital case

'D' to 'Z'

→ Can't Jump.

```java
public class Main
{
    public static void main(String[] args) {
        char ch = 'f';

        ch -= 2;
        System.out.println(ch);

    }
}
```

'd'

```java
public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        char ch = scn.next().charAt(0);

        if(ch >= 'a' && ch <= 'z'){ //small case
            if(ch >= 'a' && ch <= 'w'){ //jumps
                ch += 3;
                System.out.println(ch);
            }else{
                System.out.println("Can't jump");
            }

        }
        else if(ch >= 'A' && ch <= 'Z'){    //capital case
            if(ch >= 'D' && ch <= 'Z'){ //jumps
                ch -= 3;
                System.out.println(ch);
            }else{
                System.out.println("Can't jump");
            }

        }


```

Small Capital or Digit

Problem | Submissions | Leaderboard

Take in a character as an input and then

a. Print **Small case** if it is a small case character.

b. Print **Capital case** if it is a capital case character.

c. Print **Digit** if it is a digit.

d. Print **None** is none of the above conditions follow.

Sample Input 0

```
a
```

Sample Output 0

```
Small case
```

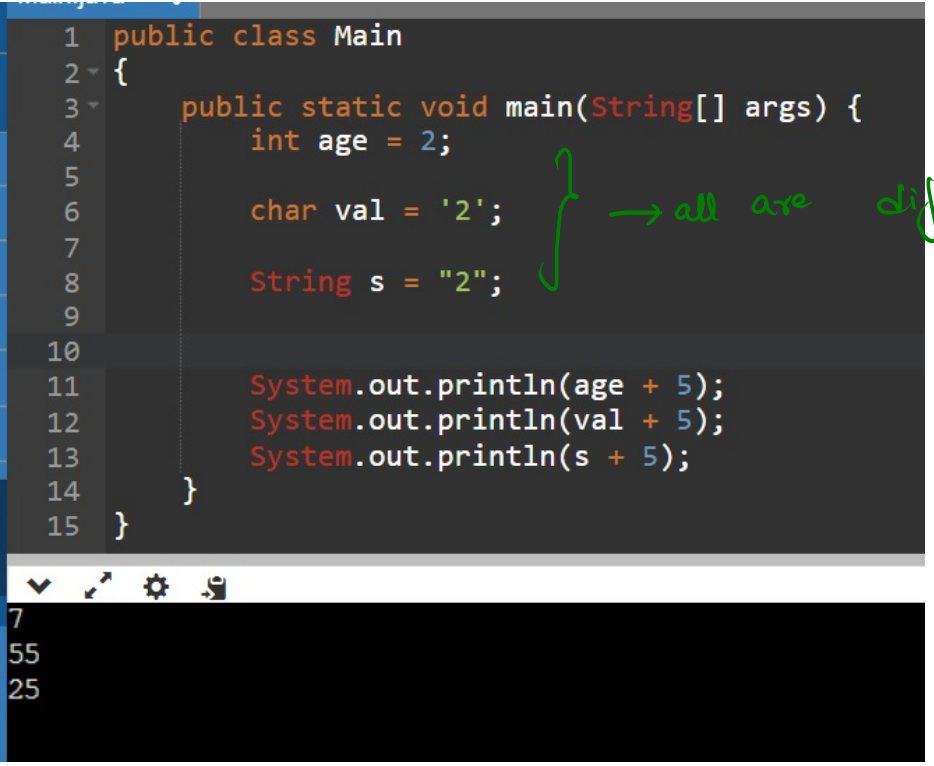
char { 'a' to 'z' , 'A' to 'Z' , '0' to '9' }

Our logic

```java
import java.io.*;
import java.util.*;

public class Solution {

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

        char ch = scn.next().charAt(0);

        if(ch >= 'a' && ch <= 'z'){
            System.out.println("Small case");
        }else if(ch >= 'A' && ch <= 'Z'){
            System.out.println("Capital case");
        }else if(ch >= '0' && ch <= '9'){
            System.out.println("Digit");
        }else{
            System.out.println("None");
        }

    }
}
```

Java specific.

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

        char ch = scn.next().charAt(0);

        if(Character.isUpperCase(ch)){
            System.out.println("Capital case");
        }
        else if(Character.isLowerCase(ch)){
            System.out.println("Small case");
        }
        else if(Character.isDigit(ch)){
            System.out.println("Digit");
        }else{
            System.out.println("None");
        }

    }
```


1 public class Main
2 {
3 public static void main(String[] args) {
4 int age = 2;
5
6 char val = '2';
7
8 String s = "2";
9
10
11 System.out.println(age + 5);
12 System.out.println(val + 5);
13 System.out.println(s + 5);
14 }
15 }
→ all are different.
7
55
25