



Recap

⇒ Basic Class / main function

Hello Learn Yard

1. Our first program
2. Printing things
3. Variables
4. Operators
5. Taking Input

integer, float, double, character etc.

Using the scanner class

Assignment  
Arithmetic

⇒  $^2$   
⇒  $+, -, *, /$

Relational

⇒  $<, >, ==$

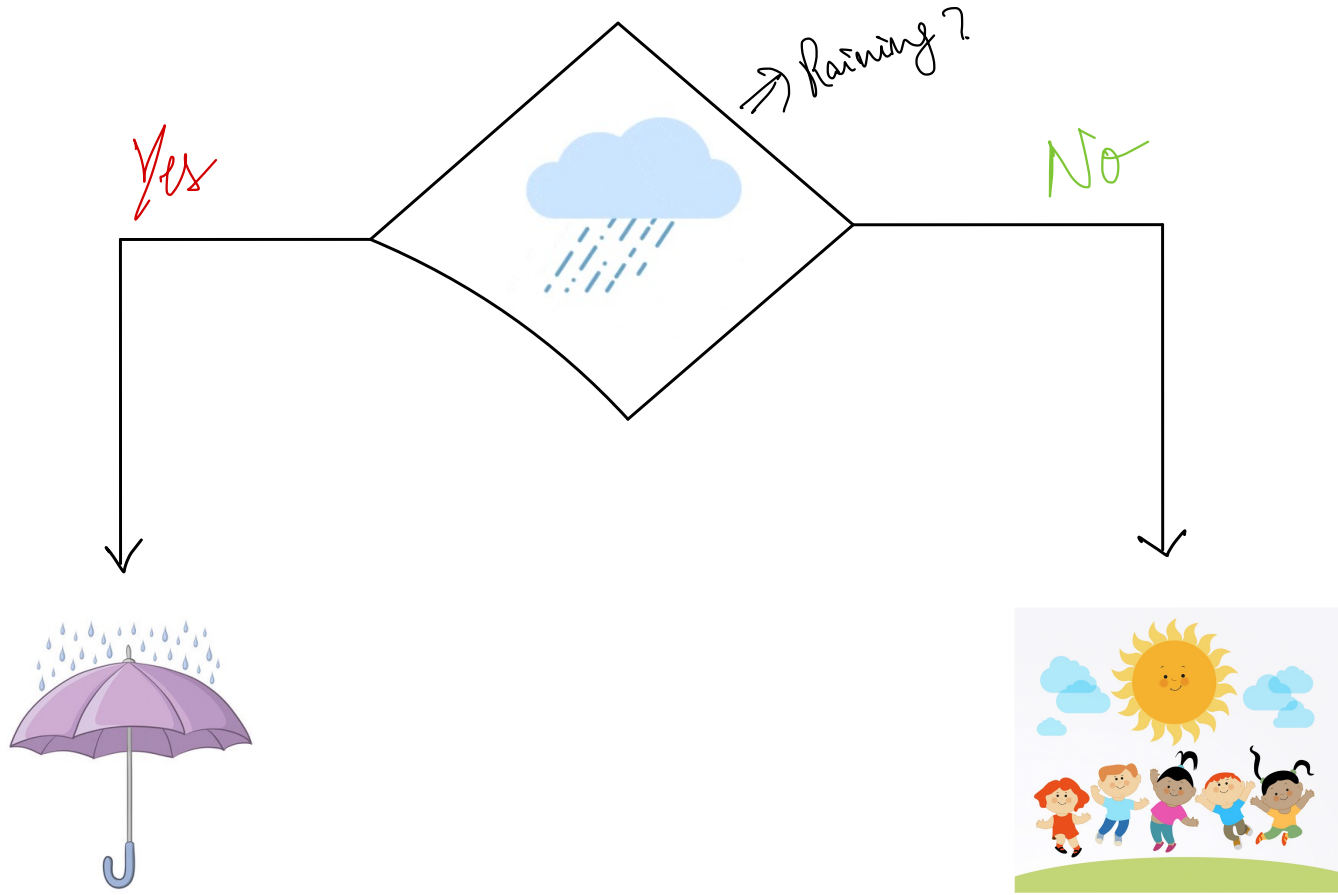
Logical

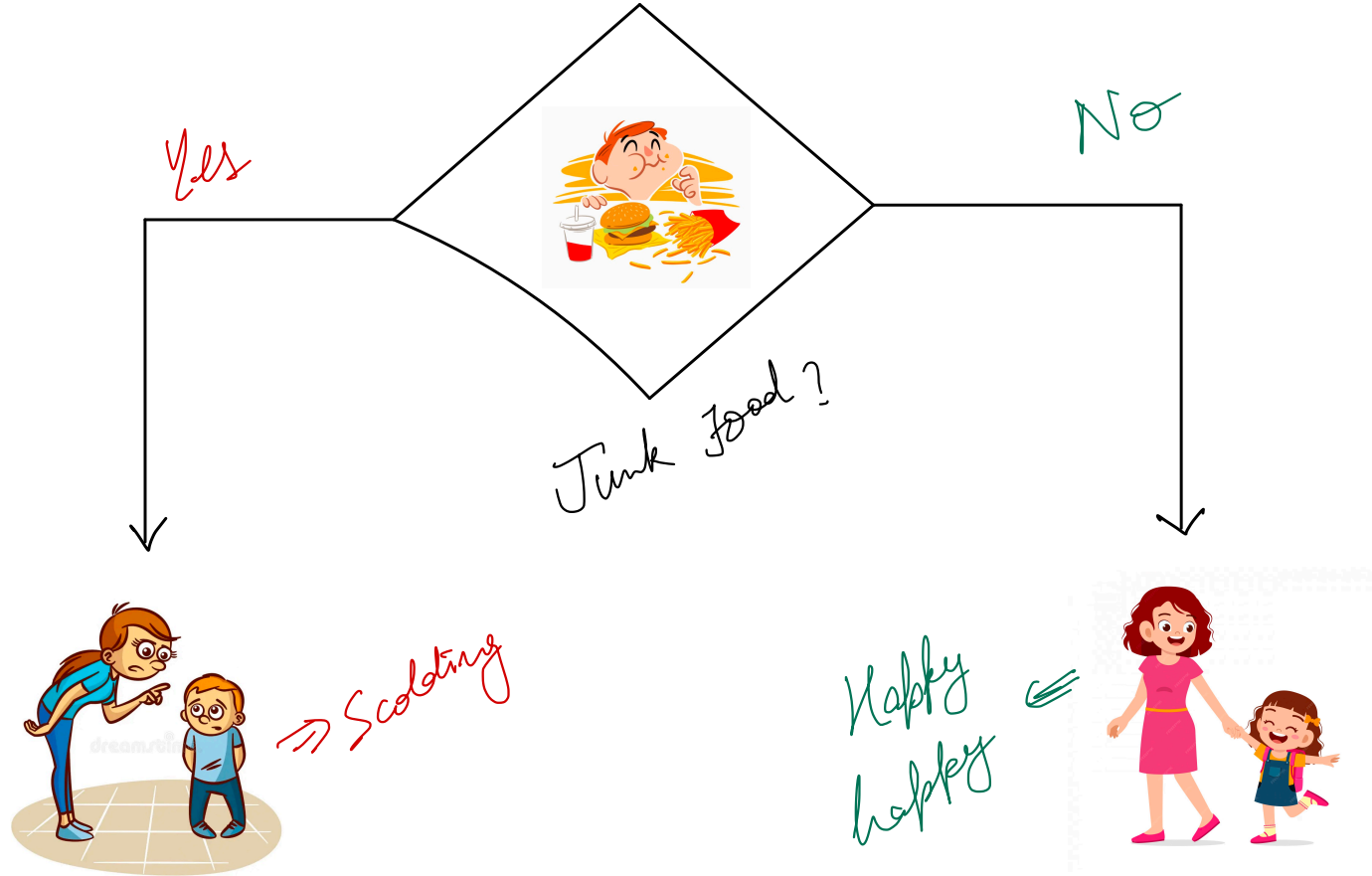
⇒  $||, \&\&$

Unary

⇒  $++, --$

Decisions  
on the basis  
of conditions





if - else

if (--- condition ---) {

// runs if the condition is true;

}

else {

// runs if the condition is  
false

}

```
int marks = sc.nextInt();
```

```
if (marks >= 33) {
```

```
    System.out.println("Pass!");
```

```
}
```

```
else {
```

```
    System.out.println("Fail!");
```

```
}
```

## Ternary Operator

-- Condition -- ? --- : --  
                  ↑          ↑  
                  true      false

int marks = sc.nextInt();  
boolean passed = marks >= 33 ? true : false;  
char grade = marks >= 33 ? 'P' : 'F';



What if it's not just a yes or a no thing,  
but different decisions in different cases?



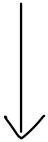
⇒ Raining  
very  
heavily



⇒ Raining  
lightly



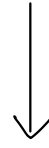
⇒ else



⇒ Stay  
Home



⇒ Go with  
Umbrella



⇒ Do  
whatever  
you  
want.



if, ..elseif.., else

marks = 69

if  
else  
ladder

if (marks  $\geq$  80)

$\Rightarrow$  Check  $\rightarrow$  false

V. good;

else if (marks  $\geq$  50)  $\Rightarrow$  Check  $\Rightarrow$  true

good;  $\Rightarrow$  Executed.

else if (marks  $\geq$  33)

Pass;

else

Fail;

Skipped (even if  
the conditions  
are true)

Practice  
conditional  
statements a bit

given 2 integers, <sup>by the user</sup>  
↑  
print the one that has  
the larger value [Print any of them if  
both have same  
value).

Given 3 integers by a user, print the largest value out of the given 3 values.

Eg. 55, 10, 12  $\Rightarrow$  55

60, 45, 45  $\Rightarrow$  60

21, 25, 25  $\Rightarrow$  25

What if it's not just 2-3 conditions?

Input (1-7)

if (c1)

else if (c2)

else if (c3)

else if (c4)

switch (→) {

case:

case:

}

## Switch syntax

```
// you code goes here
int someVariable = 5;
switch (someVariable) {
case 1:
    // Do something for 1
    break;

case 2:
    // Do something for 2
    break;

// ... cases for other relevant values ...

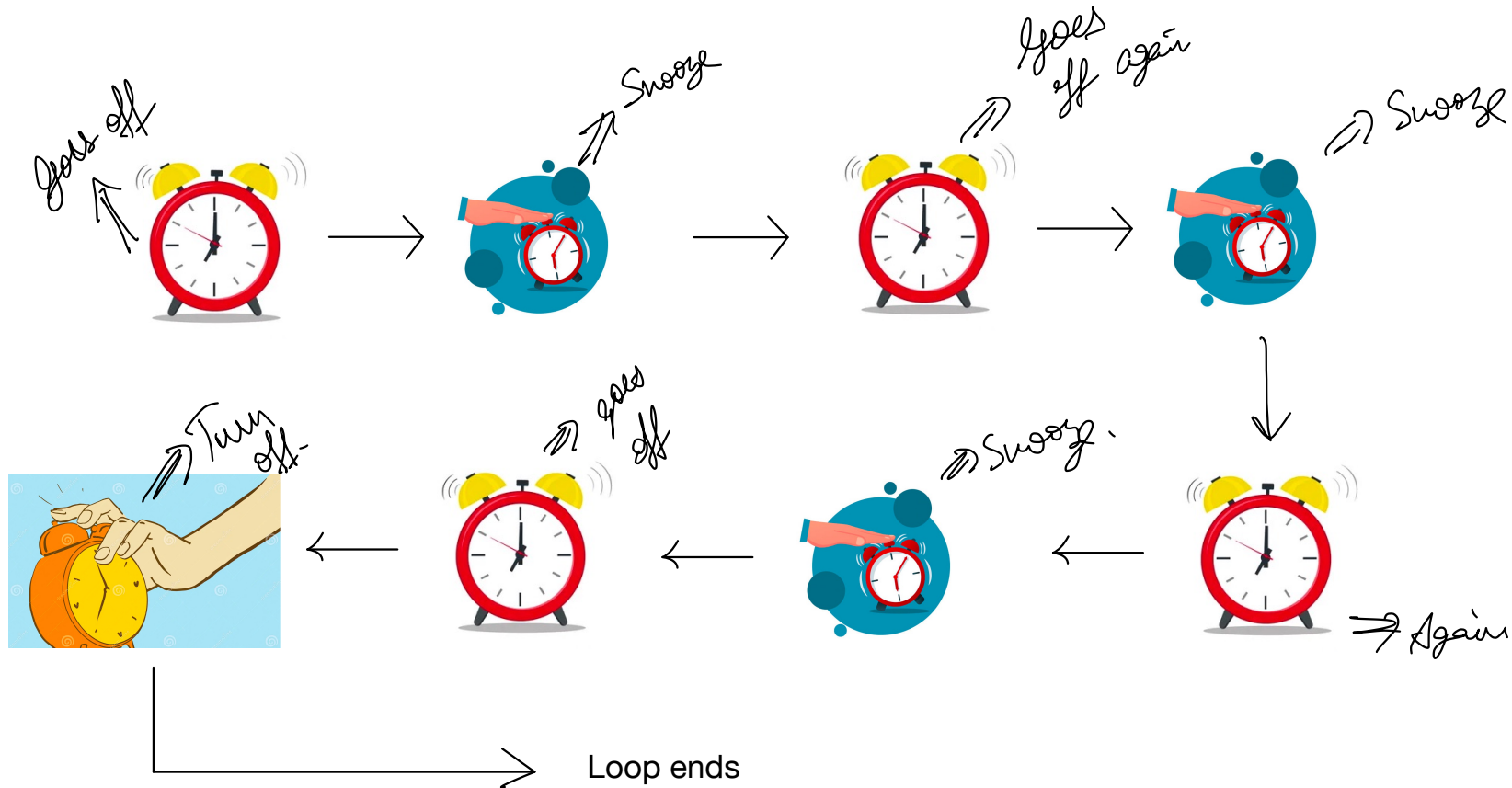
default:
    // If none of the above cases match, do something here
    break;
}
}
```

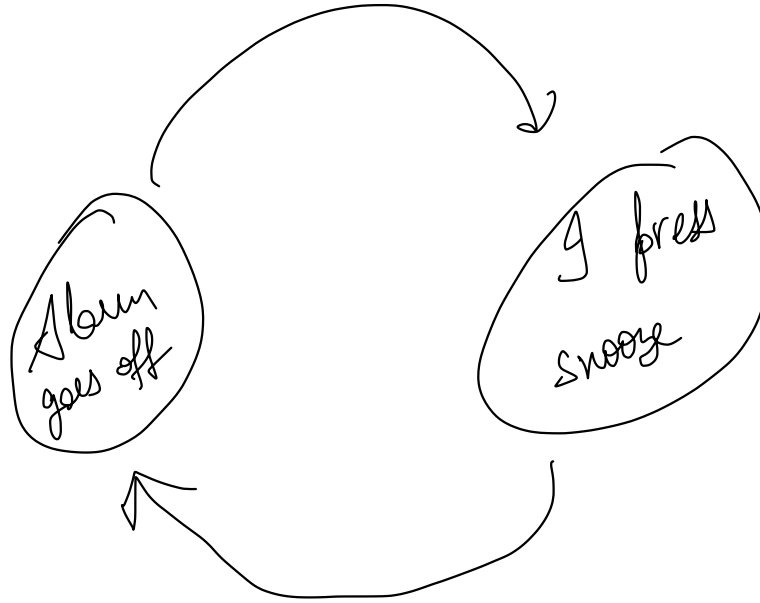
What if we want to do  
a specific thing again  
and again, until a  
specific condition is  
satisfied.



Set an alarm  
while sleeping.

Waking Up on Alarm every morning





## Types of Loops:

1. For Loop
2. While Loop
3. Do-while Loop

## For Loop

for (initialization, condition, updation) {

// code to be executed

}

-----

for (int ctr = 0; ctr < 20; ctr++) {

system.out.println("Practice!");

}

system.out.println("Practice!");

system.out.println("Practice!");

system.out.println("Practice!");

system.out.println("Practice!");

system.out.println("Practice!");

```
import java.util.Scanner;
```

```
class LearnYard {
```

```
    public static void main(String[] args) {
```

```
        // you code goes here
```

```
        Scanner sc = new Scanner(System.in);
```

```
        // int num = sc.nextInt();
```

```
        for(int ctr = 0; ctr < 3; ctr++) {
```

```
            System.out.println("Practice karo!");
```

```
        }
```

```
    }
```

```
}
```

P.k P.K.  
P.K.

ctr=0  
ctr=1  
ctr=2  
ctr=3

Practice  
for loop a bit

Take an integer input from user- ( $N$ ).

Print all the numbers from 1 to  $N$   
in increasing order.

Eg.  $N = 3$

1
2
3

 $\Rightarrow$  Output