Strings & char datatype

↓

How String is stored in memory

→ .charAt(i);

→ .length()

↳ lower to upper
upper to lower case

↳ ASCII digit value into numeric value

→ Type casting

char ch = (char)(int)

→ add / sub from char it converts that val in int

String

syntax `String str = "common";`

`str.charAt(3)`

m

`str.charAt(6);` → index out of bound

Str.length() ⇒ 6

System.out.println("10" + 80);

↳ 1080

System.out.println("10" + "80");

↳ 1080

if we add two strings they get concatinate

String ans = "Karan" + "Bisht";

↓

KaranBisht

Qus Concatenate 2

Str1 = "Karan" = 5

Str2 = "Biii" = 4

Str2 + Str1 + Str2

↓

"BiiiKaranBiii"

Qus Concatenate 2

Str1 = "Karan" = 5

Str2 = "Brii" = 4

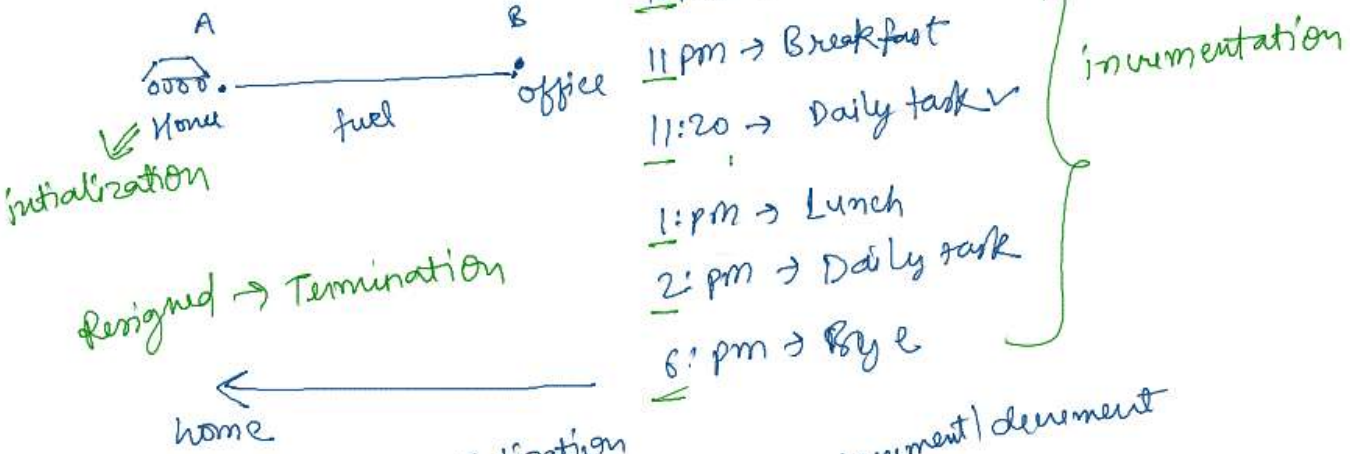
Str2 + Str1 + Str2

⇓

o/p Briii Karan Briii

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

public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        String str1= scn.next();
        String str2 = scn.next();

        int str1len = str1.length();
        int str2len = str2.length();

        if(str1len<str2len){
            System.out.println(str1+str2+str1);
        }else{
            System.out.println(str2+str1+str2);
        }
        /* Enter your code here. Read input from STDIN. Print output to STDOUT. Yo
    }
```

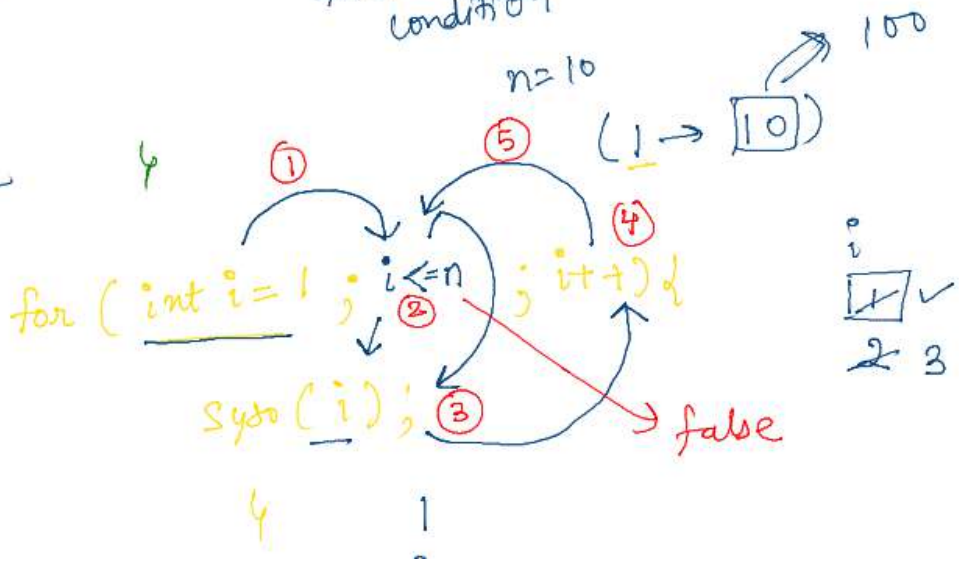
for Loops



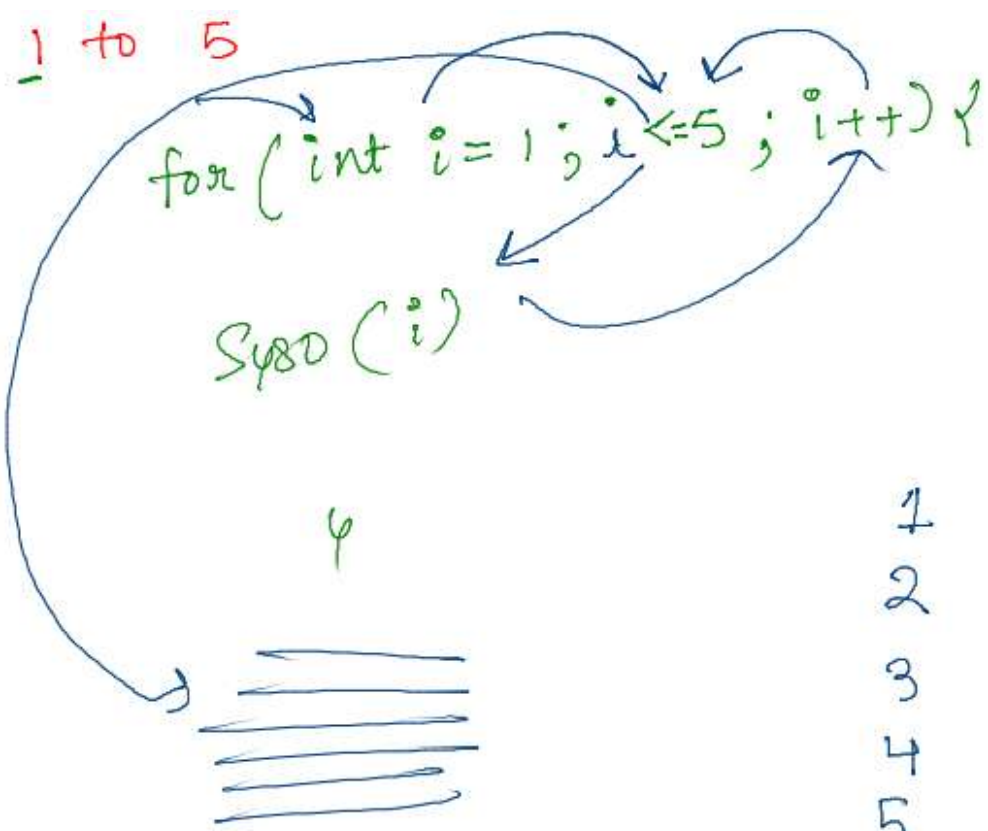
Syntax =

```
for ( ⇑ ; ⇓ ; ⇑ ){
```

initialization — termination condition — increment/decrement



step 1 → initialization
step 2 → check termination condition
step 3 → perform the logic
step 4 → increment/decrement
step 5 → check termination.



i
1 2 3 4 5 6

1
2
3
4
5

1<=5
true
2<=5
true
3<=5
true
4<=5
true
5<=5
true
6<=5
false

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

    for(int i = 1;i<=n;i++){
    → System.out.println(i);
    }

    /* Enter your code here. Read input from STDIN. Print output to ST
}
```

n = 5

i = 1 2 3 4 5 6

6<=5

1
2
3
4
5

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();
    for(int i = 1;i<=n;i++){
        System.out.println(i);
    }
    /* Enter your code here. Read input from STDIN. Print output to ST
}
```

n = 5

i = 1 2 3 4 5 6

6 <= 5

1
2
3
4
5

```java
public static void main(String[] args) {
    for(int i=1;i<=10;i++){
        System.out.println("4x"+i+"="+i*4);
    }
    /* Enter your code here. Read input from STDIN. Print output to STDO
}
```

1 2 3 4 5 ... 10 11

11 <= 10 false

10 <= 10

4x1=4
4x2=8
4x3=12
4x4=16
:
4x10=40

51 → [0 → 7 → 14 → 21 → 28 → 35 → 42 → 49]

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

    for(int i=0;i<=n ;i +=7){
        System.out.print(i+" ");
    }
    /* Enter your code here. Read input from STDIN. Print output to ST
}
```

i: 0 7 14 21 28 35 42 49 56

0 7 14 21 28 35 42 49

56 <= 51

i += 7 ⇒ i = i + 7 — no diff

Q= n = 15

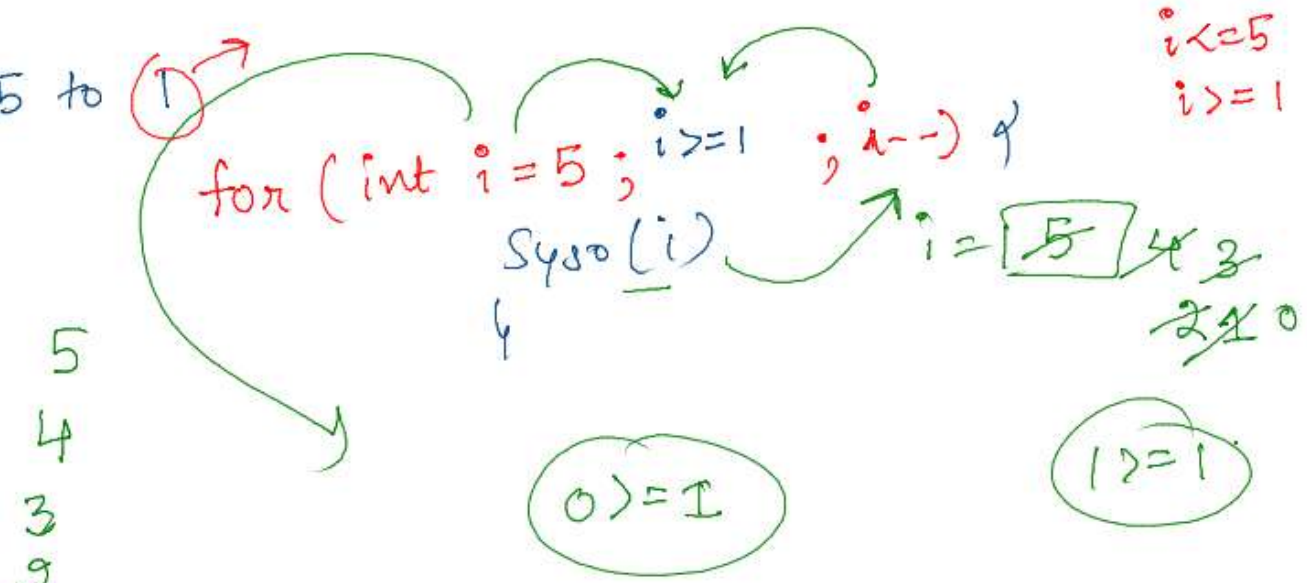
2 9 16 23 (+7 +7 +7 +7)

24

```
public static void main(String[] args) {
    //2 9 16 23

    Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        for(int i= 2; i<=n;i=i+7){
            System.out.println(i);
        }

    /* Enter your code here. Read input from STDIN. Print output
}
```

i: 2 9 16 23 30

2 9 16 23




```
char ch = 'a';
char ch2 = 'b';
Syso ( ch + "" + ch1);
```

```
for(int i= 5 ; i>=1; i--) {
}
```