Add if a digit

M. Imp

'0' → 48

'1' → 49

'2' → 50

'3' → 51

'4' → 52

'5' → 53

'6' → 54

'7' → 55

'8' → 56

'9' → 57

55
- 48

7

ASCII value of char(given)
- ASCII value of '0'

0 + 100

5 + 100 = 105

'a' + 'x'

'0' + 100 → 100

48 + 100 → 148 X

char ch = '7'

int num = ch - '0';

55 - 48

⇒ 7

char to int Integer

```java
Scanner s = new Scanner(System.in);
char ch = s.next().charAt(0);

if(ch >= '0' && ch <= '9'){
    int num = (ch - '0');
    System.out.println(num + 100);
}
else{
    System.out.println("This is not a digit");
}
```

ch = '6';

'6' >= '0' && '6' <= '9' → T

num = ('6' - '0');

54 - 48 = 6

(num + 100)

+100 ⇒ 106 o/p

'a' → else

o/p this is not a digit.

char Int

'0' → 0

'6' → 6

using in built

```java
// in built

if(Character.isDigit(ch)){
    int num = Character.getNumericValue(ch) + 100;
    System.out.println(num);
}
else{
    System.out.println("This is not a digit");
}
```

ch = '5'

isDigit('5') T

num = 5 + 100;

o/p → 105

'7' → else

Loops → used to execute statements repeatedly.

(M. Imp)

Types of loops

→ for loop

→ while loop

→ do-while loop

→ for each loop

for loop

Syntax → for(initialize; condition; upgradation){

// statement

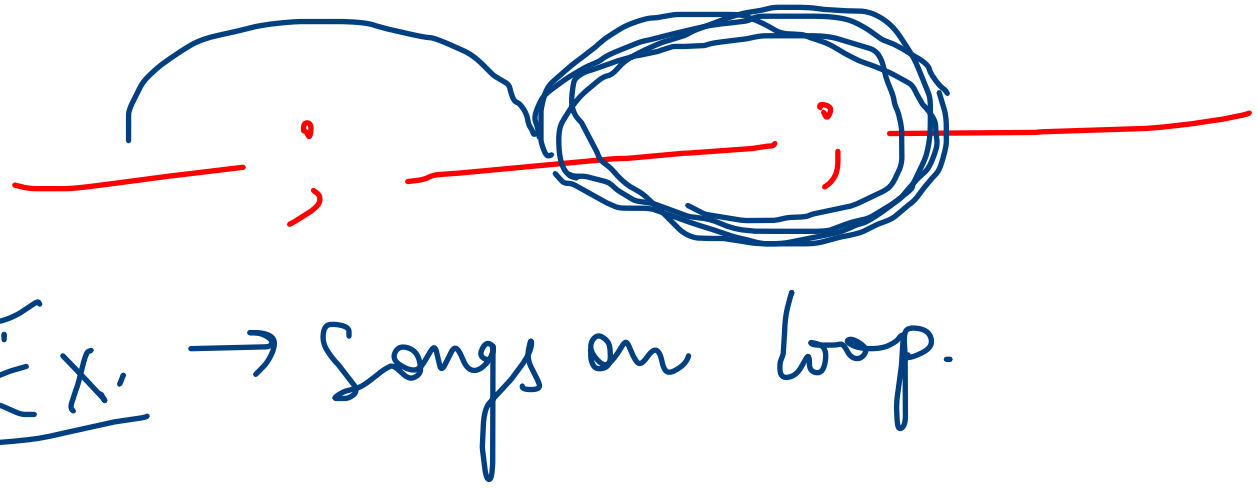
}

all 3 are optional

initialization → from where to start

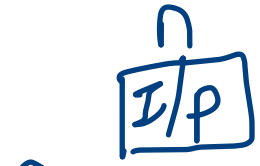
condition → when to stop

upgrade → by how much we have to move.



Ex. → Songs on loop.

HW_Print first N multiples of 9



9 x 1

9 x 2

9 x 3

:

9 x 20

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

for(int i = 1; i <= n; i++){
    System.out.print(i * 9 + " ");
}
```

9 18 27 36 45

o/p

n = 5

1 ≤ 5 T 1 x 9 = 9

2 ≤ 5 T 2 x 9 = 18

3 ≤ 5 T 3 x 9 = 27

4 ≤ 5 T 4 x 9 = 36

5 ≤ 5 T 5 x 9 = 45

6 ≤ 5 F

exit

HW_Print series 13, 18, 23, 28...

```java
Scanner s = new Scanner(System.in);
int n = s.nextInt();

for(int i = 13; i <= n; i+=5){
    System.out.print(i + " ");
}
```

Reverse 5 table

```java
for(int i = 10; i >= 1; i--){
    System.out.println("5x" + i + "=" + i*5);
    // 5x10=50
}
```