

## Assignment no 1

1) Check if given number is even or odd.

1) START

2) enter the number.

3) Check number is even or odd.

$$\text{Number} \% 2 == 0$$

4) If above statement is true then number is even.

5) If above statement is false then number is odd.

6) END.

2) Write Java Program to find Factorial of given number.

1) START

2) Enter the number.

3) use for loop

```
for(i=2; i <= number; i++)
```

4) multiple this i with factorial

```
fact *= i;
```

5) Print fact

6) END.

3) Find Factorial of number using Recursion.

1) START.

2) Enter a Number

3) Create a function name using factorial

4) In side function

```
if (i==0 || i==1)
```

```
return 1
```

else

```
return factorial(i-1) * i
```

5) Call this function

6) Print Value.

7) END.

4) Swap two numbers without using third variable.

1) START

2) Enter two numbers  $a, b$

3)  $a = a + b$

$b = a - b$

$a = a - b$

4) Print  $a, b$

5) END

6) How to check whether given number is Positive or negative.

1) START.

2) Take/enter the number.

3) If number  $> 0$

    Print number is even

4) If number  $< 0$

    Print number is odd

5) End

6) Write program to find whether given number is leap year or not

1) START

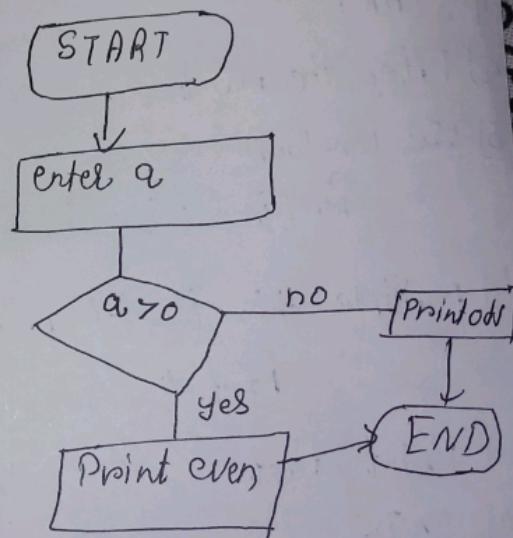
2) Enter number

3) If number  $\% 4 == 0$

    Print leap year

4) Else Print non leap year

5) END



1 Write Java Program to Print 1 to 10 Without using Loop

1) START

2) Enter int i = 1

3) Create function Ser.

    if (i > 10)

        Print i

    else

        return Ser(i + 1)

4) Print i

5) END

8) Write a Program to Print digits of number

1) START

2) Enter the number

3) Use Loop number % 10

    remainder = number % 10

4) Print remainder

    number = number / 10

5) END

4

5

Q1) Write a program to print factors of given number

- 1) START
- 2) Enter number
- 3) Take for iterator variable  $i = 1$
- 4) Dividing the number with iterator  $i$
- 5) if it is divisible then it is a factor of number  
 $(n \% i == 0)$
- 6) increase iterator.
- 7) Repeat this process.
- 8) END.

Q2) Write a program to find sum of digit of given number

- 1) START
- 2) Enter number
- 3) while loop number > 0  
    rem = number % 10;  
    sum = sum + rem;  
    number = number / 10;
- 4) Print sum
- 5) END

number  
1) write a Java Program to find the Sum of digits of given number.

2) START.

3) Enter the number.

4) int num, sum=0, rem;

5) use while loop  
( $n > 0$ )

rem = rem % 10;

sum = rem + sum;

num = num / 10;

6) Print sum

7) END

8) write a java Program to Print all factors of given number

9) START

10) Enter the number in num.

11) use for loop

for (i=0; i<=num; i++)

12) if num % i == 0

13) Print i

14) END

- Q) write Java program to find Smallest of 3 number(a,b,c)
- 1) START.
  - 2) Enter number a, b, c.
  - 3) use condition:-
- $$a < c \&& a < b ? a : b < a \&& b < c ? b : c$$
- 4) Store this in smallest variable
  - 5) Print smallest
  - 6) END.

- Q) Write Java Program to reverse a number

- 1) START
- 2) Enter number int num.
- 3) Take variable Sum, rev, temp.
- 4) use while loop

while (num > 0)

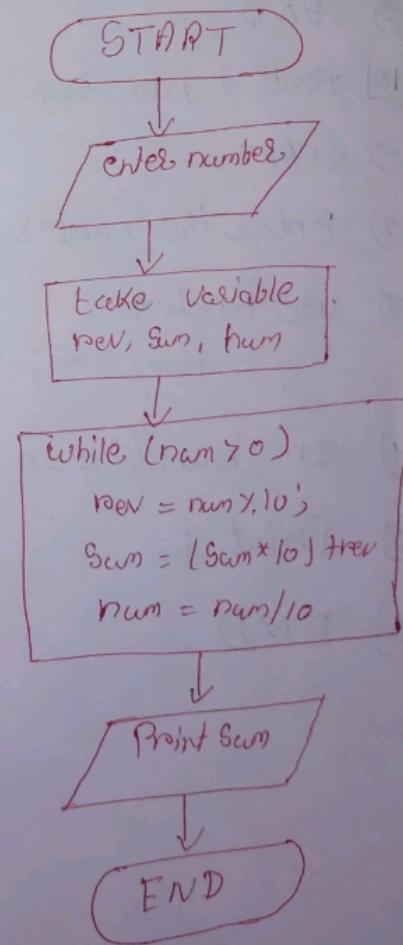
- 5) use Condition or Calculations.

rev = num % 10;

Sum = (Sum \* 10) + rev;

num = num / 10;

- 6) use condition  
~~if (num == 0)~~
- 7) Print Pal
- 8) Print Sum.



- 3) number (ex- 3) check given number is palindrome or not.
- 1) START
  - 2) Take variable rev, sum, temp
  - 3) Take number num, sum=0;
  - 4) Store num in temp.
  - 5) use while loop.  

```
while (num>0){  
    rev = rev*10;  
    sum = (sum*10) + rev;  
    num = num/10;
```
  - 6) Repeat this process until while loop not break
  - 7) if (num == temp)
  - 8) Print Palindrome.
  - 9) else -> Print not Palindrome.
  - 10) END
- 11) write Java program to find GCD of two given numbers
- 1) START
  - 2) Declare Variable n<sub>1</sub>, n<sub>2</sub>, GCD=1, i=1
  - 3) Input n<sub>1</sub> & n<sub>2</sub>.
  - 4) Repeat until i <= n<sub>1</sub> and i <= n<sub>2</sub>
    - if n<sub>1</sub> % i == 0 & n<sub>2</sub> % i == 0
    - GCD = i
  - 5) Print GCD
  - 6) END.

15] write Java Program to LCM of two Given Number

- ⇒ START
- 2) Initialize two Variables  $n_1$  &  $n_2$
- 3) Store Common multiple of  $A \& B$  into max Variable.
- 4) Validate whether the max is divisible by both  ~~$n_1, n_2$~~ .
- 5) If max is divisible , display max as Lcm of two number.
- 6) else, the value of max is increased, & go to 3.
- 7) END.

1b] write Java Program to ~~LCM of~~ print all the prime factors of given number.

- 1) START
- 2) Enter the number as  $n$ ,
- 3) Initialize loop variable  $i=2$ .
- 4) Repeat while  $i <= n/2$ ;
  - if  $n \% i == 0$
  - • if checkprime( $i$ ) == true.
    - display /Print  $i$
  - Increment  $i$  by 1
- 5) STOP.

17 To print series even number 2 4 6 8 12 . . .

- 1) START
- 2) initialize i=1, num=0
- 3) while (i <= n)
  - if (num % 2 == 0)
    - Print num.
  - num ++

4) Repeat this process

5) END.

18 To print series odd number 1 3 5 7 9 11 . . .

- 1) START
- 2) initialize i=1, num=0
- 3) while (i <= n)
  - if (num % 2 != 0)
    - Print num
  - num ++

4) Repeat this process.

5) END.

19] How to add two number without using arithmetic operation.

- 1) START
- 2) Initialize  $a$  &  $b$  entre two number  $\underline{a}$  and  $\underline{b}$
- 3) use for loop & initialize int  $i=1$ 
  - . for ( $i=1$ ;  $i \leq b$ ,  $i++$ )
  - .  $a = a + 1$
- 4) ~~except~~ Repeat this process until loop stop.
- 5) Print  $\underline{a}$
- 6) END.