**Assignment of logic building DAY3 (CODING)**

1. **Write a program to calculate the sum of the first 50 natural numbers.**

class NaturalNumber {

public static void main(String[] args) {

int sum = 0;

for (int i = 1; i <=50; i++) {

sum = sum+i;

}

System.out.println(sum);

}

}

OUTPUT🡪1275

1. **Write a program to compute the factorial of the number 10.**

class Factorial{

public static void main(String[] args) {

int fact = 1;

for (int i = 1; i <=10; i++) {

fact=fact\*i;

}

System.out.println(fact);

}

}

OUTPUT🡪3628800

1. **Write a program to print all multiples of 7 between 1 and 100.**

class Multiple {

public static void main(String[] args) {

for (int i = 1; i <=100; i++) {

if (i % 7 == 0)

{

System.out.print(i+" ");

}

}

}

}

OUTPUT🡪 7 14 21 28 35 42 49 56 63 70 77 84 91 98

1. **Write a program to reverse the digits of the number 1234. The output should be 4321.**

**ANS🡪** class Reverse {

public static void main(String[] args) {

int a =1234;

int reverse = 0;

while(a != 0){

int digit = a % 10;

reverse = reverse\*10 + digit;

a = a/10;

}

System.out.println(reverse);

}

}

1. **Write a program to print the Fibonacci sequence up to the number 21.**

**ANS🡪** class Fibonacci {

public static void main(String[] args) {

int c=0;

int a =0;

System.out.println(0);

int b =1;

System.out.println(1);

while(c<21){

c = a+b;

a=b;

b=c;

System.out.print(c+" ");

}

}

}

OUTPUT🡪 1 1 2 3 5 8 13 21

**6. Write a program to find and print the first 5 prime numbers.**

**7. Write a program to calculate the sum of the digits of the number 9876. The output should be 30 (9 + 8 + 7 + 6).**

**ANS🡪** class SumOfNumber {

public static void main(String[] args) {

int a =1234;

int sum = 0;

while(a != 0){

int digit = a % 10;

sum = sum + digit;

a = a/10;

}

System.out.println(sum);

}

}

**8. Write a program to count down from 10 to 0, printing each number.**

**ANS🡪** class Countdown {

public static void main(String[] args) {

int start = 10;

for (int number = start; number >= 0; number--) {

System.out.println(number);

}

}

}

**9. Write a program to find and print the largest digit in the number 4825.**

ANS🡪 public class LargestDigitFinder {

public static void main(String[] args) {

int number = 4825;

int largestDigit = 0;

while (number > 0) {

int digit = number % 10;

if (digit > largestDigit) {

largestDigit = digit;

}

number /= 10;

}

System.out.println("The largest digit is: " + largestDigit);

}

}

**10. Write a program to print all even numbers between 1 and 50.**

**ANS🡪**

class Even {

public static void main(String[] args) {

for(int i=1; i<=50 ; i++){

if(i%2 == 0){

System.out.print(i+” “);

}

}

}

**11. Write a Java program to demonstrate the use of both pre-increment and post-decrement operators in a single expression**

**ANS🡪** public class IncrementDecrementDemo {

public static void main(String[] args) {

int x = 5;

int y = 10;

int result = ++x + y--;

System.out.println("Result of ++x + y--: " + result);

System.out.println("Value of x: " + x);

System.out.println("Value of y: " + y);

}

}