**DAY 19**

**1.Count vowels in a given string**

Input: "Groovy Programming"

Output: 6

**PROGRAM:**

String a="Groovy Programming" count=0 for(char c:a.toCharArray())

{

if(c=='a' ||c=='e' ||c=='i' ||c=='o' ||c=='u' ||c=='A' ||c=='E' ||c=='I' ||c=='O' ||c=='U')

{ count+=1;

}

}

println(count)

**2**.**Reverse a string without using built-in reverse()**

Input: "KnowKode"

Output: "edoKwonK"

**PROGRAM:**

a="KnowKnode"

result="" for(int i=a.length()-1;i>=0;i--)

{

result+=a.charAt(i)

}

println result

**3**.**Check if a number is prime**

Input: 17

Output: true

**PROGRAM:**

int n=17 boolean isprime=true; for(int i=2;i<Math.sqrt(n);i++)

{ if(n%i==0)

{ isprime=false

}

} println isprime

4. **Remove duplicates from a list**

Input: [1, 2, 2, 3, 4, 4, 5]

Output: [1, 2, 3, 4, 5]

**PROGRAM**:

def list=[1, 2, 2, 3, 4, 4, 5] def uniquelist=list.unique()

print(uniquelist)

**5**.**Find common elements in two lists**

def list1 = [1, 2, 3, 4] def list2 = [3, 4, 5, 6]

**PROGRAM:**

def list1 = [1, 2, 3, 4] def list2 = [3, 4, 5, 6] a=list1.intersect(list2)

println(a)

**6**.**Check if two strings are anagrams**

Input: "listen", "silent"

Output: true

**PROGRAM:**

a="listen" b="silent" c=a.toList().sort()==b.toList().sort() println(c)

7. **Print Fibonacci series up to N terms**

Input: n = 10

Output: 0 1 1 2 3 5 8 13 21 34

**PROGRAM:**

def n = 10 def a = 0, b = 1

print("$a $b ") (n - 2).times { def next = a + b print("$next ") a = b b = next

}

8. **Check if a string is a palindrome**

Input: "madam"

Output: true

**PROGRAM:**

def str = "madam" def isPalindrome = str == str.reverse()

println(isPalindrome)