DAY #3

#450 DSA Problem:-

1. https://practice.geeksforgeeks.org/problems/cyclically-rotate-an-array-by-one2614/1

```
void rotate(int arr[], int n)
{
    int temp=arr[n-1];
    for(int i=n-1;i>=1;i--){
        arr[i]=arr[i-1];

    }
    arr[0]=temp;


}
```

2. https://leetcode.com/problems/reverse-string/

```
class Solution {
    public void reverseString(char[] s) {
        int i=0;
        int j=(s.length)-1;
        while(i<j){
            char c=s[j];
            s[j]=s[i];
            s[i]=c;
            j--;i++;
        }
    }
}
```

3. https://practice.geeksforgeeks.org/problems/palindrome-string0817/1

```
class Solution {
    int isPlaindrome(String S) {
        // code here
```

```
        int i=0;

        int j=S.length()-1;

        while(i<j){

            if(S.charAt(i)!=S.charAt(j))return 0;

            i++;

            j--;

        }

        return 1;

    }

};
```

4. https://practice.geeksforgeeks.org/problems/value-equal-to-index-value1330/1

```
class Solution {

    ArrayList<Integer> valueEqualToIndex(int arr[], int n) {

        // code here

        ArrayList<Integer>ar=new ArrayList<>();

        for(int i=0;i<n;i++)

        {

            if(arr[i]==i+1)

            ar.add(arr[i]);

        }

        return ar;

    }

}
```

5. https://practice.geeksforgeeks.org/problems/detect-loop-in-linked-list/1

```
class Solution {

    public static boolean detectLoop(Node head){

     Node fast=head,slow=head;

     while((fast.next!=null)&&(fast.next.next!=null)){


        fast=fast.next.next;

        slow=slow.next;
```

```java
        if(fast==slow)return true;

    }

    return false;



    }
}
```

```java
class Solution {

    boolean checkPrime(int n)

    {

        if(n==1)return false;

        if(n<=3)return true;

        if(n%2==0)return false;

        for(int i=3;i*i<=n;i++)

        {

            if(n%i==0)return false;

        }return true;

    }

    ArrayList<Integer> primeRange(int M, int N) {

        // code here

        ArrayList<Integer>ar=new ArrayList<>();

        for(int i=M;i<=N;i++)

        {

            if(checkPrime(i))

            {

                ar.add(i);

            }


        }

        return ar;
```

```
    }
}
```

7.

```
class Solution
{
        public:
                long long int reverse_digit(long long int n)
                {
                    // Code here

                    long long int res=0;
                    while(n){
                       res=res*10+n%10;
                       n/=10;
                    }
                    return res;

                }
};
```

8.

```
class Solution
{
    String to_upper(String str)
    {
      // code here
      StringBuilder res =new StringBuilder();
      for(int i=0;i<str.length();i++)
      {
        res.append((char)(str.charAt(i)-32));
      }
      return res.toString();
```

```
    }
}
```

Deadline: 10march