Qn:

Caesar wants to arrange a secret meeting with Marc Antony, either at the Tiber (the river) or at the Coliseum (the arena). He sends the shift cipher text EVIRE. However, Antony does not know the key, so he tries all possibilities. where will be meet Caesar?

AIM:

To decrypt the given encrypted text using Caesar Cipher and find the place.

Procedure:

1) Get the encrypted text as input.

2) Check all the possible combinations of the real plain text.

3) Form the combinations by shifting each character the

the left by certain number of characters from 0 to 25

4) Check the possible combinations to find the two given coords.

5) If any one of them exist, then Caesar will meet anthony at that place

6) If both or none of them exists, then they cannot meet.

RESULT:

The given encrypted text has been decrypted successfully.

CODE:

```java
class Main {
 public static void main(String[] args) {
    String str="EVIRE";
    String str1="ARENA";
    String str2="RIVER";
    String[] possibleCombinations=new String[26];
    StringBuilder dec=new StringBuilder();
    for(int i=0;i<26;i++){
      dec=new StringBuilder();
      for(int j=0;j<str.length();j++){
        char c= (char)((str.charAt(j)-'A'-i+26)%26+'A');
        dec.append(c);
      }
      possibleCombinations[i]= dec.toString();
    }
    int flag=0;
    for(String s: possibleCombinations){
      System.out.println(s);
      if(s.equals(str1)){
        if(flag==2){
          flag=3;
        }
        else flag=1;
      }else if(s.equals(str2)){
        if(flag==1){
          flag=3;
        }else flag=2;
      }
    }
    if(flag==1){
      System.out.println("ARENA Found! Marc Anthony will meet Caesar at the
Coliseum arena");
    }else if(flag==2){
      System.out.println("RIVER Found! Marc Anthony will meet Caesar at the
Tiber river");
    }else if(flag==3){
```

```java
        System.out.println("ARENA and RIVER both are found. Marc Anthony
cannot meet Caesar");
    }else System.out.println("Neither of the places are found. Marc Anthony
cannot meet Caesar");
  }
}
```

OUTPUT:

All the possible combinations:

0 EVIRE
1 DUHQD
2 CTGPC
3 BSFOB
4 ARENA
5 ZQDMZ
6 YPCLY
7 XOBKX
8 WNAJW
9 VMZIV
10 ULYHU
11 TKXGT
12 SJWFS
13 RIVER
14 QHUDQ
15 PGTCP
16 OFSBO
17 NERAN
18 MDQZM
19 LCPYL
20 KBOXK
21 JANWJ
22 IZMVI
23 HYLUH
24 GXKTG
25 FWJSF
ARENA and RIVER both are found. Marc Anthony cannot meet Caesar