```python
#Python program to illustrate Missionaries & cannibals Problem

#This code is contributed by Sunit Mal

print("\n")

print("\tGame Start\nNow the task is to move all of them to right side of the river")

print("rules:\n1. The boat can carry at most two people\n2. If cannibals num greater than missionaries
then the cannibals would eat the missionaries\n3. The boat cannot cross the river by itself with no
people on board")

lM = 3              #lM = Left side Missionaries number

lC = 3              #lC = Laft side Cannibals number

rM=0                #rM = Right side Missionaries number

rC=0                #rC = Right side cannibals number

userM = 0           #userM = User input for number of missionaries for right to left side travel

userC = 0           #userC = User input for number of cannibals for right to left travel

k = 0

print("\nM M M C C C |  --- | \n")

try:

        while(True):

                while(True):

                        print("Left side -> right side river travel")

                        #uM = user input for number of missionaries for left to right travel

                        #uC = user input for number of cannibals for left to right travel

                        uM = int(input("Enter number of Missionaries travel => "))

                        uC = int(input("Enter number of Cannibals travel => "))


                        if((uM==0)and(uC==0)):

                                print("Empty travel not possible")

                                print("Re-enter : ")

                        elif(((uM+uC) <= 2)and((lM-uM)>=0)and((lC-uC)>=0)):

                                break
```

```python
            else:
                    print("Wrong input re-enter : ")
        lM = (lM-uM)
        lC = (lC-uC)
        rM += uM
        rC += uC


        print("\n")
        for i in range(0,lM):
                print("M ",end="")
        for i in range(0,lC):
                print("C ",end="")
        print("| --> | ",end="")
        for i in range(0,rM):
                print("M ",end="")
        for i in range(0,rC):
                print("C ",end="")
        print("\n")


        k +=1


        if(((lC==3)and (lM == 1))or((lC==3)and(lM==2))or((lC==2)and(lM==1))or((rC==3)and (rM
== 1))or((rC==3)and(rM==2))or((rC==2)and(rM==1))):
                print("Cannibals eat missionaries:\nYou lost the game")


                break


        if((rM+rC) == 6):
                print("You won the game : \n\tCongrats")
```

```python
            print("Total attempt")
            print(k)
            break
    while(True):
            print("Right side -> Left side river travel")
            userM = int(input("Enter number of Missionaries travel => "))
            userC = int(input("Enter number of Cannibals travel => "))


            if((userM==0)and(userC==0)):
                            print("Empty travel not possible")
                            print("Re-enter : ")
            elif(((userM+userC) <= 2)and((rM-userM)>=0)and((rC-userC)>=0)):
                    break
            else:
                    print("Wrong input re-enter : ")
    lM += userM
    lC += userC
    rM -= userM
    rC -= userC

    k +=1
    print("\n")
    for i in range(0,lM):
            print("M ",end="")
    for i in range(0,lC):
            print("C ",end="")
    print("| <-- | ",end="")
    for i in range(0,rM):
            print("M ",end="")
```

```python
            for i in range(0,rC):

                    print("C ",end="")

            print("\n")




            if(((lC==3)and (lM == 1))or((lC==3)and(lM==2))or((lC==2)and(lM==1))or((rC==3)and (rM
== 1))or((rC==3)and(rM==2))or((rC==2)and(rM==1))):

                    print("Cannibals eat missionaries:\nYou lost the game")

                    break
except EOFError as e:

        print("\nInvalid input please retry !!")


output:
```

```
Enter number of Cannibals travel => 2
Wrong input re-enter :
Left side -> right side river travel
Enter number of Missionaries travel => 1
Enter number of Cannibals travel => 1


M M C C | --> | M C

Right side -> Left side river travel
Enter number of Missionaries travel => 2
Enter number of Cannibals travel => 1
Wrong input re-enter :
Right side -> Left side river travel
Enter number of Missionaries travel => 1
Enter number of Cannibals travel => 1


M M M C C C | <-- |

Left side -> right side river travel
Enter number of Missionaries travel => 1
Enter number of Cannibals travel => 1


M M C C | --> | M C

Right side -> Left side river travel
Enter number of Missionaries travel => 1
Enter number of Cannibals travel => 1


M M M C C C | <-- |

Left side -> right side river travel
Enter number of Missionaries travel => 1
Enter number of Cannibals travel => 2
Wrong input re-enter :
Left side -> right side river travel
Enter number of Missionaries travel =>
```