

NETWORK LAB

HOTS QUESTION

CHECKSUM CODE

```
def strsummod(str):  
    return sum([ord(x) for x in str])  
  
def checksum256(str):  
    return 255 - strsummod(str)%256  
  
print("SENDER'S SIDE\n")  
print("WELCOME TO Reserve_my_show.com\n")  
n = int(input("Number of details of the client are : "))  
print("\nEnter the details (using checksum function) : ")  
strings = [input().strip() for i in range(n)]  
strings = [i+chr(checksum256(i)) for i in strings]  
  
print("\nString after the appending the checksum is:\n")  
print(*strings, sep='\n')  
  
print("\nRECIEVER SIDE\n")  
if any([checksum256(i) for i in strings]) != 0:  
    print("\nThe details received are incorrect. The packet is rejected\n")  
else:  
    print("\nThe details received are correct. The packet is accepted\n")
```

SCREENSHOT

```

SENDER'S SIDE

WELCOME TO Reserve_my_show.com

Number of details of the client are : 6

Enter the details (using checksum function) :
Dhruv Garg
Infinity war
INOX
05 Jan 2018 8 pm
2
A9, A10

String after the appending the checksum is:

Dhruv GargU
Infinity warK
INOXÁ
05 Jan 2018 8 pm!
2Í
A9, A10

RECIEVER SIDE

The details received are correct. The packet is accepted

```

CRC CODE

```

def crc(msg, div, code='000'):
    msg = msg + code
    msg = list(msg)
    div = list(div)
    for i in range(len(msg)-len(code)):
        if msg[i] == '1':
            for j in range(len(div)):
                msg[i+j] = str((int(msg[i+j])+int(div[j]))%2)
    return ''.join(msg[-len(code):])

def stringtocrc(s, div):
    l = [bin(ord(i))[2:] for i in s]
    oplist = [crc(i, div) for i in l]
    return [l[i]+oplist[i] for i in range(len(l))]

print("SENDER'S SIDE\n")

```

```

print("WELCOME TO Reserve_my_show.com\n")

n = int(input("Number of details of the client are : "))

div = '1001'

msglist = [input().strip() for i in range(n)]

print(msglist)

codelist = [stringtocrc(i, div) for i in msglist]

print("\nString after the appending the CRC is:\n")

print(*codelist, sep='\n')

temp = []

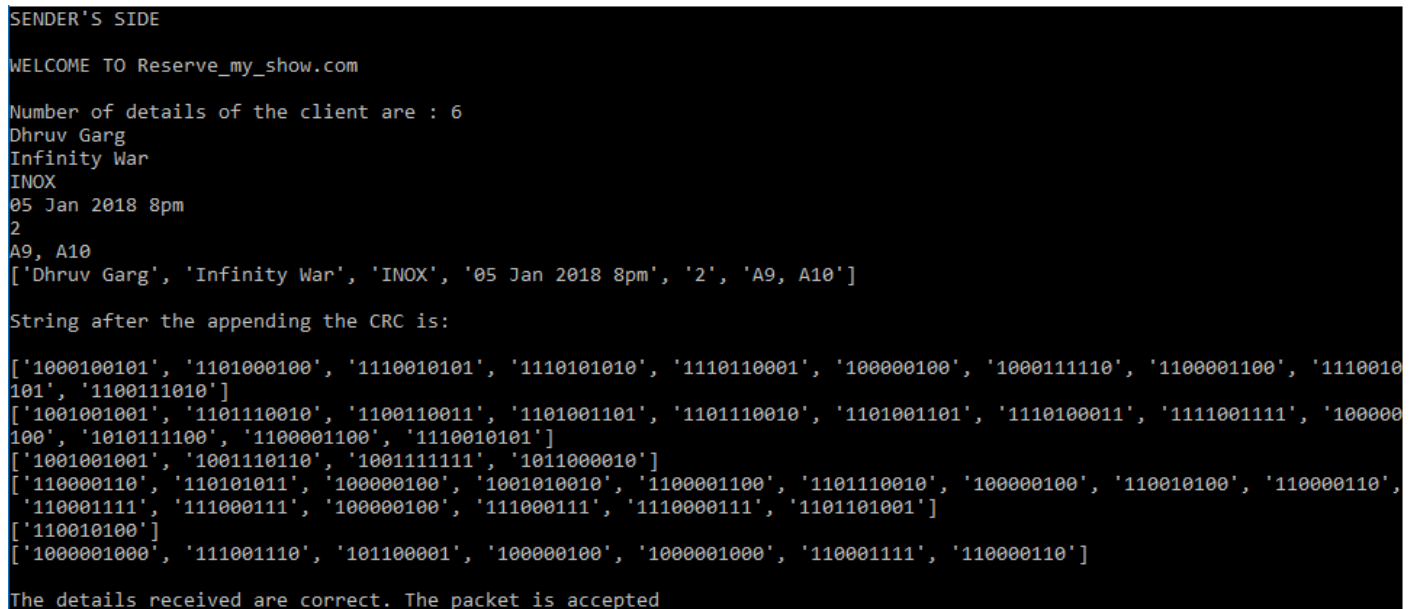
for i in codelist:

    temp += [crc[j[:-3], div, j[-3:]] for j in i]

print("\nThe details received are correct. The packet is accepted\n") if any(temp) != '000' else print("\nThe details
received are incorrect. The packet is rejected\n")

```

SCREENSHOT



```

SENDER'S SIDE

WELCOME TO Reserve_my_show.com

Number of details of the client are : 6
Dhruv Garg
Infinity War
INOX
05 Jan 2018 8pm
2
A9, A10
['Dhruv Garg', 'Infinity War', 'INOX', '05 Jan 2018 8pm', '2', 'A9, A10']

String after the appending the CRC is:

['1000100101', '1101000100', '1110010101', '1110101010', '1110110001', '100000100', '1000111110', '1100001100', '1110010101', '1100111010']
['1001001001', '1101110010', '1100110011', '1101001101', '1101110010', '1101001101', '1110100011', '1111001111', '100000100', '1010111100', '1100001100', '1110010101']
['1001001001', '1001110110', '1001111111', '1011000010']
['110000110', '110101011', '100000100', '1001010010', '1100001100', '1101110010', '100000100', '110010100', '110000110', '110001111', '111000111', '100000100', '111000111', '1101101001']
['110010100']
['1000001000', '111001110', '101100001', '100000100', '1000001000', '110001111', '110000110']

The details received are correct. The packet is accepted

```