**Institute of Engineering & Management**

**Department of Computer Science & Engineering**

**Network Lab for 3rd year 6th semester 2019**

**Code: CS 692**

**Date:** 25-03-19

**WEEK-4**

**Assignment-1**

**Problem Statement:**

**Source code:**

print("\t----Sender Side----\n")

data = input("Enter the dataword: ")

count1 = 0

for i in data:

if i == '1':

count1 = count1+1

if count1%2 == 1:

data = data + '1'

else:

data = data + '0'

print("The codeword is: "+ data + "\n\n")

print("\t----Receiver Side----\n")

code = input("Enter the received Codeword: ")

count1 = 0

for i in code[:-1]:

if i == '1':

count1 = count1+1

check = 0

if count1%2 == 1:

check = 1

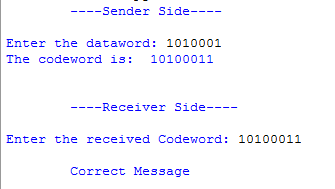
if check == int(code[-1]):

print("\n\tCorrect Message\n")

else:

print("\n\tIncorrect Message\n")

**Screenshot:**



**Assignment-2**

**Problem Statement:**

**Source code:**

import math as m

print("\t----Sender Side----\n")

data = input("Enter the dataword: ")

count1 = 0

lrow = m.sqrt(len(data))

if int(lrow)\*\*2 != len(data):

print("Not applicable for non-linear codes")

exit()

else:

lrow = int(lrow)

rowparity = ""

for i in range(lrow):

count1 = 0

for j in range(lrow):

if data[i\*lrow+j] == "1":

count1 = count1+1

if count1%2 == 1:

rowparity = rowparity+"1"

else:

rowparity = rowparity+"0"

colparity = ""

count1 = 0

for i in range(lrow):

count1=0

for j in range(lrow):

if data[j\*lrow+i] == "1":

count1 = count1+1

if count1%2 == 1:

colparity = colparity+"1"

else:

colparity = colparity+"0"

count1 = 0

for i in rowparity:

if i == '1':

count1 = count1+1

if count1%2 == 1:

colparity = colparity+"1"

else:

colparity = colparity+"0"

res = ""

for i in range(lrow):

res += data[i\*lrow:(i+1)\*lrow] + rowparity[i]

res = res + colparity

print("\nCodeword is: "+ res+"\n\n")

print("\t----Receiver Side----\n")

code = input("Enter the received Codeword: ")

count1 = 0

lrow = m.sqrt(len(code))

if int(lrow)\*\*2 != len(code):

print("Not applicable for non-linear codes")

exit()

else:

lrow = int(lrow)

for i in range(lrow-1):

count1 = 0

for j in range(lrow):

if code[i\*lrow+j] == "1":

count1 = count1+1

if count1%2 == 1:

print("\tIncorrect Message\n")

exit()

for i in range(lrow):

count1 = 0

for j in range(lrow):

if code[j\*lrow+i] == "1":

count1 = count1+1

if count1%2 == 1:

print("\tIncorrect Message\n")

exit()

print("\tCorrect Message")

**Screenshot:**

