***//Assignment-5 Computer Networks Lab***

***//A program to simulate and implement stop and wait protocol for noisy channel***

Sender.c

#include<stdio.h>

#include<stdlib.h>

#include<string.h>

int main()

{

int i, n, ch;

char input[20];

FILE \*in;

//randomize();

printf("\n\t\t Stop and Wait Protocol \n");

printf("\n 1. Send \n2. Check ACK\n3.EOT\n");

while(1)

{

printf("Enter your choice: ");

scanf("%d", &ch);

switch(ch)

{

case 1:

in = fopen("data.txt", "w");

printf("Enter the Data: ");

scanf("%s", input);

n = strlen(input);

for(i=0; i<n+1; i++)

fprintf(in, "%s", input);

fclose(in);

printf("Data Sent\n");

break;

getch();

}

}

}

Receiver.c

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

int i, n;

char output[20];

FILE \*out;

clrscr();

out=fopen("data\_parity.txt", "r");

fscanf(out, "%s", output);

n = strlen(output);

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

if(output[i]=='1')

one++;

if(one%2==0)

{

printf("Received Data has Even Parity\n");

printf("Data Accepted\n");

}

else

{

printf("Received Data has Odd Parity\n");

printf("Data Rejected\n");

}

printf("Received Data: ");

for(i=0;i<n-1; i++)

printf("%c", output[i]);

fclose(out);

getch();

}

**OUTPUT:**

Stop and Wait Protocol

1. Send

2. Check ACK

3.EOT

Enter your choice: 1

Enter the Data: computer

Data Sent

Enter your choice: