**Simple stop and wait ARQ implementation in C language**

 #include<stdio.h>

int sender();

int recv();

int timer=0,wait\_for\_ack=-1,frameQ=0,cansend=1,t=0;

int main()

{

int i,j;

int frame[5];

printf("enter the time when data frame will be ready\n");

for(j=0;j<3;j++)

{

sender( i,frame);

recv(i);

}

}

int sender(int i,int frame[])

{

wait\_for\_ack++;

if(wait\_for\_ack==3)

{

if(i==frame[t])

{

frameQ++;

t++;

}

if(frameQ==0)

printf("NO FRAME TO SEND at time=%d \n",i);

if(frameQ>0 && cansend==1)

{

printf("FRAME SEND AT TIME=%d\n",i);

cansend=-1;

frameQ--;

timer++;

printf("timer in sender=%d\n",timer);

}

if(frameQ>0 && cansend==-1)

printf("FRAME IN Q FOR TRANSMISSION AT TIME=%d\n",i);

if(frameQ>0)

t++;

}

printf("frameQ=%d\n",frameQ);

printf("i=%d t=%d\n",i,t);

printf("value in frame=%d\n",frame[t]);

return 0;

}

int recv(int i )

{ printf("timer in recvr=%d\n",timer);

if(timer>0)

{

timer++;

}

if(timer==3)

{

printf("FRAME ARRIVED AT TIME= %d\n",i);

wait\_for\_ack=0;

timer=0;

}

else

printf("WAITING FOR FRAME AT TIME %d\n",i);

return 0;

}