#include<iostream>

#include<conio.h>

#include<time.h>

#include<stdlib.h>

using namespace std;

class frame

{

int \*ar;

int size;

public:

void input();

void sender();

void receiver(int re);

};

void frame::input()

{

cout<<"STOP AND WAIT PROTOCOL\n"<<endl;

cout<<"Enter total no. of frames:"<<endl;

cin>>size;

ar = new int[size];

for(int i=0;i<size;i++)

{

ar[i]=i+1;

}

cout<<"Frames:"<<endl;

for(int i=1;i<=size;i++)

{

cout<<"Frame-"<<i<<" ";

}

cout<<endl;

cout<<endl;

}

void frame::sender()

{

for(int i=1;i<=size;i++)

{

here:

cout<<"\_\_Sender Side\_\_"<<endl;

cout<<"Sending frame"<<i<<endl;

cout<<"Timer starts!"<<endl;

cout<<endl;

srand(time(NULL));

int y;

y=(rand()%3)+1;

getch();

if(y==1)

{

cout<<"------"<<endl;

receiver(i);

getch();

cout<<"Frame"<<i<<" received at receiver side"<<endl;

cout<<"Acknowledgement:Success in the sending frame"<<i<<endl;

cout<<"------\n\n"<<endl;

}

else if(y==2)

{

cout<<"------"<<endl;

cout<<"Frame"<<i<<" "<<"not found"<<endl;

cout<<"Sending frame again!"<<endl;

cout<<"------\n\n\n"<<endl;

goto here;

}

else

{

cout<<"------"<<endl;

receiver(i);

getch();

cout<<"Frame"<<i<<" received at receiver side"<<endl;

cout<<"Acknowledgement not received!"<<endl;

cout<<"Sending frame aagin!"<<endl;

cout<<"------"<<endl;

goto here;

cout<<endl;

cout<<endl;

cout<<endl;

}

}

cout<<"Successful!"<<endl;

}

void frame::receiver(int re)

{

cout<<"Receiver side"<<endl;

cout<<"Sending acknowledgement: "<<(r+1)%2;

cout<<endl;

}

int main()

{

frame obj;

obj.input();

obj.sender();

return 0;

}