```java
import java.util.LinkedList;
import java.util.Queue;
import java.util.Scanner;



class Sender {
private final int totalFrames;
private final int windowSize;
private int nextFrameToSend = 1; // Start frame numbering from 1



public Sender(int totalFrames, int windowSize) {
this.totalFrames = totalFrames;
this.windowSize = windowSize;
}



public void sendFrames(Receiver receiver) {
while (nextFrameToSend <= totalFrames) {
// Calculate the number of frames to send in the current window
int framesToSend = Math.min(windowSize, totalFrames - nextFrameToSend + 1);
System.out.println("Sender: Sending frames " + nextFrameToSend + " to " +
(nextFrameToSend + framesToSend - 1));
for (int i = 0; i < framesToSend; i++) {
receiver.receiveFrame(nextFrameToSend + i);
}
nextFrameToSend += framesToSend;



// Simulate waiting for acknowledgment
receiver.sendAcknowledgment(this);
}
}



public void acknowledgeFrame(int frameNumber) {
System.out.println("Sender: Acknowledged frame " + frameNumber);
}
```

```java
}

class Receiver {
private final int totalFrames;
private final Queue<Integer> receivedFrames = new LinkedList<>();


public Receiver(int totalFrames) {
this.totalFrames = totalFrames;
}


public void receiveFrame(int frameNumber) {
if (frameNumber <= totalFrames) {
System.out.println("Receiver: Received frame " + frameNumber);
receivedFrames.add(frameNumber);
}
}


public void sendAcknowledgment(Sender sender) {
while (!receivedFrames.isEmpty()) {
int acknowledgedFrame = receivedFrames.poll();
sender.acknowledgeFrame(acknowledgedFrame);
}
}
}


public class SlidingWindowProtocol {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);


System.out.print("Enter the number of frames: ");
int totalFrames = scanner.nextInt();


System.out.print("Enter the window size: ");
int windowSize = scanner.nextInt();
```

```java
Sender sender = new Sender(totalFrames, windowSize);
Receiver receiver = new Receiver(totalFrames);


sender.sendFrames(receiver);


scanner.close();
}
}
```