Register Number	21BCE1955	Subject Code	BCSE 308P
Name of the Student	VAIBHAV BANKA	Subject Name	COMPUTER NETWORKS LAB
Programme	BTECH CSE	Slot	L1+L2
Course		Semester	IV

Code

```python
ssthresh=int(input("Enter the threshold program: "))
cwnd=int(input("Enter the starting window size: "))
max_cwnd=int(input("Enter the max window size: "))
timeout=int(input("Enter the timeout after: "))
print("\nSlow Start\n")
i=cwnd
count=0
while(i<=ssthresh):
    print("cwnd:",i)
    print("Transmitted packets:",i)
    print("Acknowledged packets:",i)
    print()
    i*=2
    count+=1
    if(count==timeout):
        print(".....................Timeout Occured.......Restarting slow
start.............")
        ssthresh=i/4
        i=1
        while(i<=ssthresh):
            print("cwnd:",i)
            print("Transmitted packets:",i)
            print("Acknowledged packets:",i)
            print()
            i*=2
i=(i//2)+1
print("Congestion Avoidance\n")
while(i<=max_cwnd):
    print("cwnd:",i)
    print("Transmitted packet:",i)
    print("Acknowledged packet:",i)
    print()
    i=i+1
```

Output

```
PS C:\Users\vaibh> python -u "c:\Users\vaibh\OneDrive\Desktop\cn 12.py"
Enter the threshold program: 32
Enter the starting window size: 1
Enter the max window size: 40
Enter the timeout after: 5

Slow Start

cwnd: 1
Transmitted packets: 1
Acknowledged packets: 1

cwnd: 2
Transmitted packets: 2
Acknowledged packets: 2

cwnd: 4
Transmitted packets: 4
Acknowledged packets: 4

cwnd: 8
Transmitted packets: 8
Acknowledged packets: 8

cwnd: 16
Transmitted packets: 16
Acknowledged packets: 16

.....................Timeout Occured.......Restarting slow start.............
cwnd: 1
Transmitted packets: 1
Acknowledged packets: 1

cwnd: 2
Transmitted packets: 2
Acknowledged packets: 2

cwnd: 4
Transmitted packets: 4
Acknowledged packets: 4
```

```
cwnd: 8
Transmitted packets: 8
Acknowledged packets: 8

Congestion Avoidance

cwnd: 9
Transmitted packet: 9
Acknowledged packet: 9

cwnd: 10
Transmitted packet: 10
Acknowledged packet: 10

cwnd: 11
Transmitted packet: 11
Acknowledged packet: 11

cwnd: 12
Transmitted packet: 12
Acknowledged packet: 12

cwnd: 13
Transmitted packet: 13
Acknowledged packet: 13

cwnd: 14
Transmitted packet: 14
Acknowledged packet: 14

cwnd: 15
Transmitted packet: 15
Acknowledged packet: 15

cwnd: 16
Transmitted packet: 16
Acknowledged packet: 16

cwnd: 17
Transmitted packet: 17
Acknowledged packet: 17
```

```
cwnd: 18
Transmitted packet: 18
Acknowledged packet: 18

cwnd: 19
Transmitted packet: 19
Acknowledged packet: 19

cwnd: 20
Transmitted packet: 20
Acknowledged packet: 20

cwnd: 21
Transmitted packet: 21
Acknowledged packet: 21

cwnd: 22
Transmitted packet: 22
Acknowledged packet: 22

cwnd: 23
Transmitted packet: 23
Acknowledged packet: 23

cwnd: 24
Transmitted packet: 24
Acknowledged packet: 24

cwnd: 25
Transmitted packet: 25
Acknowledged packet: 25

cwnd: 26
Transmitted packet: 26
Acknowledged packet: 26

cwnd: 27
Transmitted packet: 27
Acknowledged packet: 27

cwnd: 28
Transmitted packet: 28
```

```
cwnd: 29
Transmitted packet: 29
Acknowledged packet: 29

cwnd: 30
Transmitted packet: 30
Acknowledged packet: 30

cwnd: 31
Transmitted packet: 31
Acknowledged packet: 31

cwnd: 32
Transmitted packet: 32
Acknowledged packet: 32

cwnd: 33
Transmitted packet: 33
Acknowledged packet: 33

cwnd: 34
Transmitted packet: 34

cwnd: 36
Transmitted packet: 36
Acknowledged packet: 36

cwnd: 37
Transmitted packet: 37
Acknowledged packet: 37

cwnd: 38
Transmitted packet: 38
Acknowledged packet: 38

cwnd: 39
Transmitted packet: 39
Acknowledged packet: 39

cwnd: 40
Transmitted packet: 40
Acknowledged packet: 40
```