Kabe-Innovates Update : Rea	dme.md •••	225ec0e · now \(\) 4 Commits
☐ README.md	Update : Readme.md	now
Screenshot.png	Program : Written and Executed	7 minutes ago
Client.py	Program : Written and Executed	7 minutes ago
server.py	Program : Written and Executed	7 minutes ago
☐ README		Ø :≡

2b IMPLEMENTATION OF SLIDING WINDOW PROTOCOL

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AIM

To implement a program to illustrate the mechanism of sliding window protocol

ALGORITHM:

- 1. Start the program.
- 2. Get the frame size from the user
- 3. To create the frame based on the user request.
- 4. To send frames to server from the client side.
- 5. If your frames reach the server it will send ACK signal to client
- 6. Stop the Program

PROGRAM

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Reg no: 212224110027

Client

import socket s = socket.socket() s.bind(('localhost',8002)) s.listen(5) c, addr = s.accept() ListSize = int(input("Enter the number of frames to send : ")) List = list(range(ListSize)) WindowSize = int(input("Enter Window Size : ")) st, i = 0, 0while True: while(i < ListSize):</pre> st += WindowSize c.send(str(List[i:st]).encode()) Acknowledgment = c.recv(1024).decode() if Acknowledgment: print(Acknowledgment) i+=st

Server

```
import socket
s = socket.socket()
s.connect(('localhost', 8002))
while True:
    print(s.recv(1024).decode())
    s.send("Acknowledgement received from the server".encode())
```

OUPUT

Refer to the screenshot below to see the output of the program

```
PS D:\EVEN JUN\COMPUTER NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python client.py
Enter the number of frames to send : 5
Enter Window Size : 10
Acknowledgement received from the server

PS D:\EVEN JUN\COMPUTER NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python server.py

[0, 1, 2, 3, 4]

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PS D:\EVEN JUN\COMPUTER NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python server.py

[0, 1, 2, 3, 4]

PS D:\EVEN JUN\COMPUTER NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python server.py

[0, 1, 2, 3, 4]

PS D:\EVEN JUN\COMPUTER NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python server.py

[0, 1, 2, 3, 4]

PS D:\EVEN JUN\COMPUTER NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python server.py

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[0, 1, 2, 3, 4]

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[0, 1, 2, 3, 4]

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[0, 1, 2, 3, 4]

PS D:\EVEN JUN\ComputeR NETWORKS\Experiments\2b_SLIDING_WINDOW_PROTOCOL > python server.py

[0, 1, 2, 3, 4]
```

RESULT

Thus, python program to perform stop and wait protocol was successfully executed