2b IMPLEMENTATION OF SLIDING WINDOW PROTOCOL

AIM

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

CLIENT

```
import socket
s=socket.socket()
s.bind(('localhost',8000))
s.listen(5)
c,addr=s.accept()
size=int(input("Enter number of frames to send : "))
l=list(range(size))
s=int(input("Enter Window Size : "))
st=0
i=0
while True:
 while(i<len(l)):
 st+=s
 c.send(str(l[i:st]).encode())
 ack=c.recv(1024).decode()
 if ack:
 print(ack)
 i+=s
```

SERVER

```
import socket
s=socket.socket()
s.connect(('localhost',8000))
while True:
print(s.recv(1024).decode())
s.send("acknowledgement recived from the server".encode())
```

OUPUT

```
Python 3.12.2 (tags/v3.12.2:6abddd9, Feb  6 2024, 21:26:36) [MSC v.1937 64 bi
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

= RESTART: C:\Users\admin\Downloads\1B Client.txt
Enter number of frames to send15
Enter Window Size : 5
acknowledgement recived from the server
acknowledgement recived from the server
acknowledgement recived from the server
```

```
Python 3.12.2 (tags/v3.12.2:6abddd9, Feb  6 2024, 21:26:36) [MSC v.1937 64 bi
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

= RESTART: C:\Users\admin\Downloads\1B server.txt
[0, 1, 2, 3, 4]
[5, 6, 7, 8, 9]
[10, 11, 12, 13, 14]
```

RESULT

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