sim:

uwinte a program to implement Alone Contrac

at data dink dayer wing SCIDING WIMDOW

PROTOCOC simulate the Alone of brames forom

one made do another.

Program should achieve at least the done given crequerement. Eour can conste at is bidirehoral programs coherein creview is sending its data obrames with asknow. Dedgenent Clippebading!

Create a pender program with chollowing features!

I Input wiendone wise from the user

2) Input a test message from the cises.

3) consider, character perforance.
4) weak a chromo with bollowing fields

· CEramo no DATA)

5) Scend othe drame. Clisht the output on when and save let in a his called sender. Buffer.

6) wait for the asknowledgement from the Reviewer CInduce delay in the programs.

7) peader a file Cauch Peinner-Buffer 8) check A (to cfield chan the Arknowledgement muber.

The the debuousedgment unmber in as oscipeted and now wet of frames awardingly. Oute a reviewer chilo with chellowing because.

Dreader a file called sender-Buffer. 2) chart the France no

3) If the France one we as expected, white the appropriate A(& mo in the Reviews - Buffer Rule.

Student observation

inport time
import OS

de b conder (window - Size, onecosy):

vender - buffer = "Sender - Buffer - tot"

vertiver - buffer = "periever - Buffer - tot"

chrame in = 0

frame - CCi amessage Cist for i in

vauge (Sen (arressage))

volido pramo-no c m (franco);

for i in range (window - vice); if draine - no + i c den (chrane): part Quending frame: Soframes Ceprano-no + CJ3"). with spon (counder buffer, a) as of: cf. overite (E ! Expresses Copresso _ no + i)C()? Mede Cours and Chin ! timo - sleep (# tronulate delay cohib true: cif os. path - osisto (rainver - buffix): with open (viewer - bupper, or') as & ark - m = ind (& - read (), strip () OS-samora (sasaiver - buffer) cif ack-no > = dramo-no: print (4" tack recieved for fram: Sark-no311) frame - no = gek -no+1 point (of "WALK recived chan chrone: Sprang - no.3

wending ... 'S

```
window, aiso = int (input ("tute windows coise: "))
  message = input (" Futer message: ")
    Sender (windong - wire, message)
Peigleer
 import dimo
import 05
def orevivoer ():
    wender - buffer = "Sender - Buffer . tod"
     reviewer - Suffer = "Reviewer - Buffer - foit"
     expected - frame no = 0
  colido Torro:
    ub os. faith exists (sender - bupper).
     with open (counter - buffer, it ) as of:
      clines = of readlines ()
      OS. sourores (Sender - buffer)
  for Sine an lines:
    christo = line . strip (). aplit ()
    Grans-no = int (decome Co)
   date = frame CiJ
   in drame - 10 = = expected - chramo - no:
       print (F "ore neved opramo: Soframo - no3)
```

ing - mans - = = " - main _ " :

1 data : Sdata J') with open (oreviewer - buffer, 'co) asch: of awrite (atr (frame-no)) expented - frame - no += 1 also: Plant (of "conseperted frame: Sframe- no ? caspeted: 8 expected - grans - no 3") widh open (verieuer, butter, la/) as b; of awrite (etr (dramo - no)) Offected - framo - no + = 1 print (& "unexpected frame: Efrane-00 } expected: Eaxperted - frame - 0031) with open (creiwer - buffer, w/) as &: of a curite (extre (experted a frame - no -1)) af - name = = = 11 - unain - 11; reviewer () Enter window size: 81 Futer message: hello Sending frame /. Co, h/J Sending frame: [1, 6] Sending dramo: [2/4]

Sending from C3/ I) Sarriang opramo C4, 0) NACE reinced for frame: 0, vasending. Sanding frame. Co, 'h') Sending framo: Ci, co') Souding openio : (2/ 1) Sending frame: (31'1') Sending framo: C4, 01) NACT voices for france: 0, resembling. Sending oprane: Co, h') Sending sprane: (1/e) Sending Arano: (2/d) Sanding frame (3,d) Seending framo - C4/01) reliever fy magneted frame: 21 expected: 0 unexpected frame: 2, expected: 0 unexpeited frame: 3/cospeited:0 consequented primed frame odata: h moscpected perinued forano, data: a Refused frame : 2, data : 1 Revived frame: 3, data: 1 Reviewed fram : 4 stata: 0 Thus the sliding curindous for Sender and Reviewer efile is executed successfully and opis unified