

We consider each folder as a separate machine

Step 1: Go to " CR " folder

Run the **Registration.py** by the command

```
-----  
python3 Registration.py  
-----
```

It will create **CR.txt, DR.txt, DR1.txt, GSS.txt, ID.txt, Pub.txt, multivariate.txt**

Step 2: Access Control between **Drone to Drone**

-->Copy the files--- **ID.txt, Pub.txt, multivariate.txt** ---- in **all the folders:** DR_client, DR_DR_Server, DR_GSS_Server(DR as Server), GSS

-->Copy --- **DR1.txt** -- in " **DR_Client** " folder

-->Copy --- **DR.txt** -- in " **DR_DR_Server** " folder

-->Copy --- **DR.txt** -- in " **DR_GSS_Server(DR as Server)** " folder

-->Copy --- **GSS.txt** -- in " **GSS** " folder

Step 3: go to " **DR_DR_Server** " folder open a separate terminal and run

```
-----  
python3 DR_Server.py  
-----
```

Next,
go to " **DR_Client** " folder and open a separate terminal and run

```
-----  
python DR.py  
-----
```

After creating the session key

-----give the file name in the " **DR_Client** " terminal ----

ISA.png

```
-----  
the file will send. the encrypted file can be seen in " credentials.enc "
```

Step 4: Drone to GSS access control

go to " **DR_GSS_Server(DR as Server)** " folder and open a separate terminal and run

```
python3 DR_GSS.py
```

go to " **GSS** " folder and open a separate terminal and run

```
python3 GSS.py
```

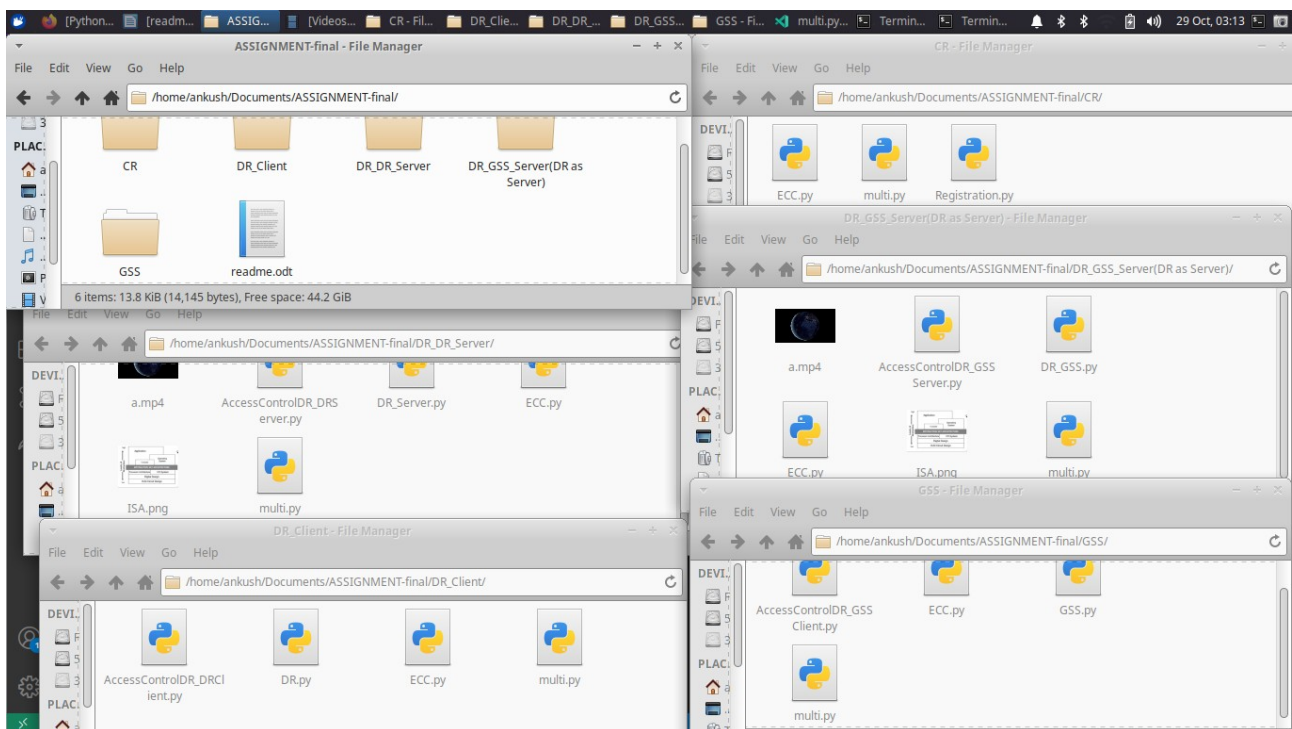
After creating the session key

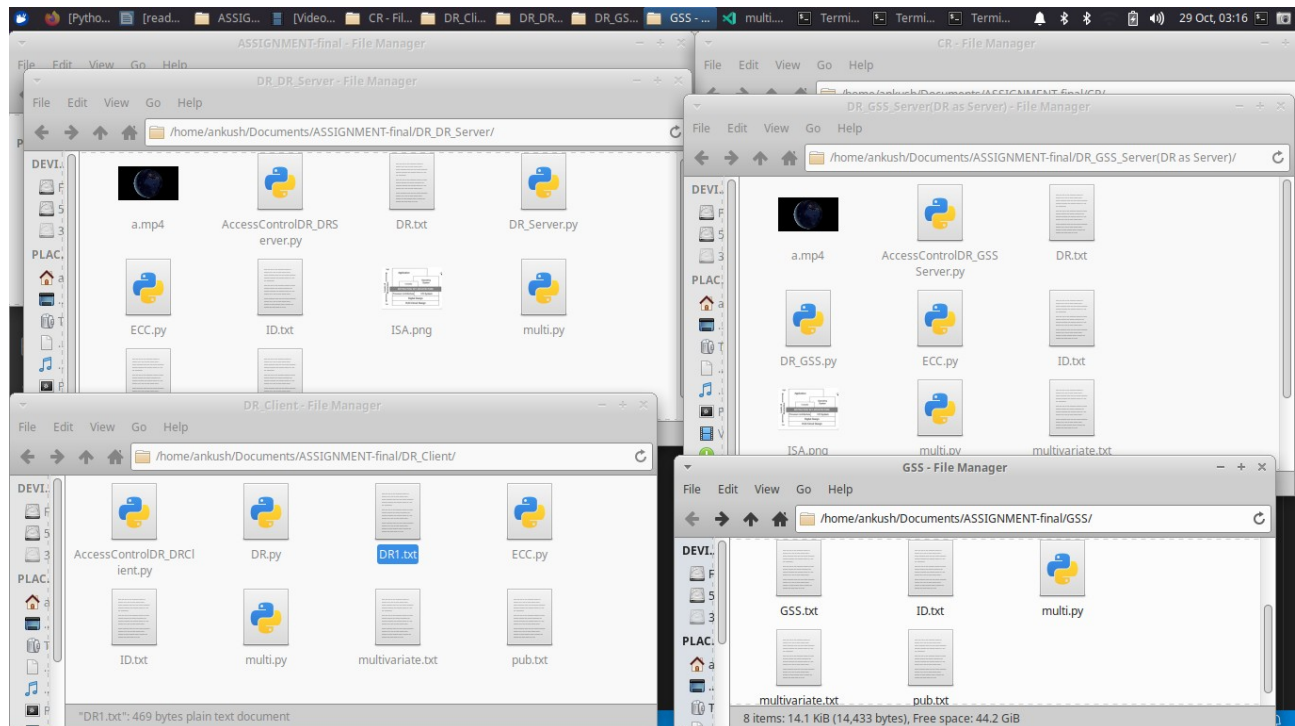
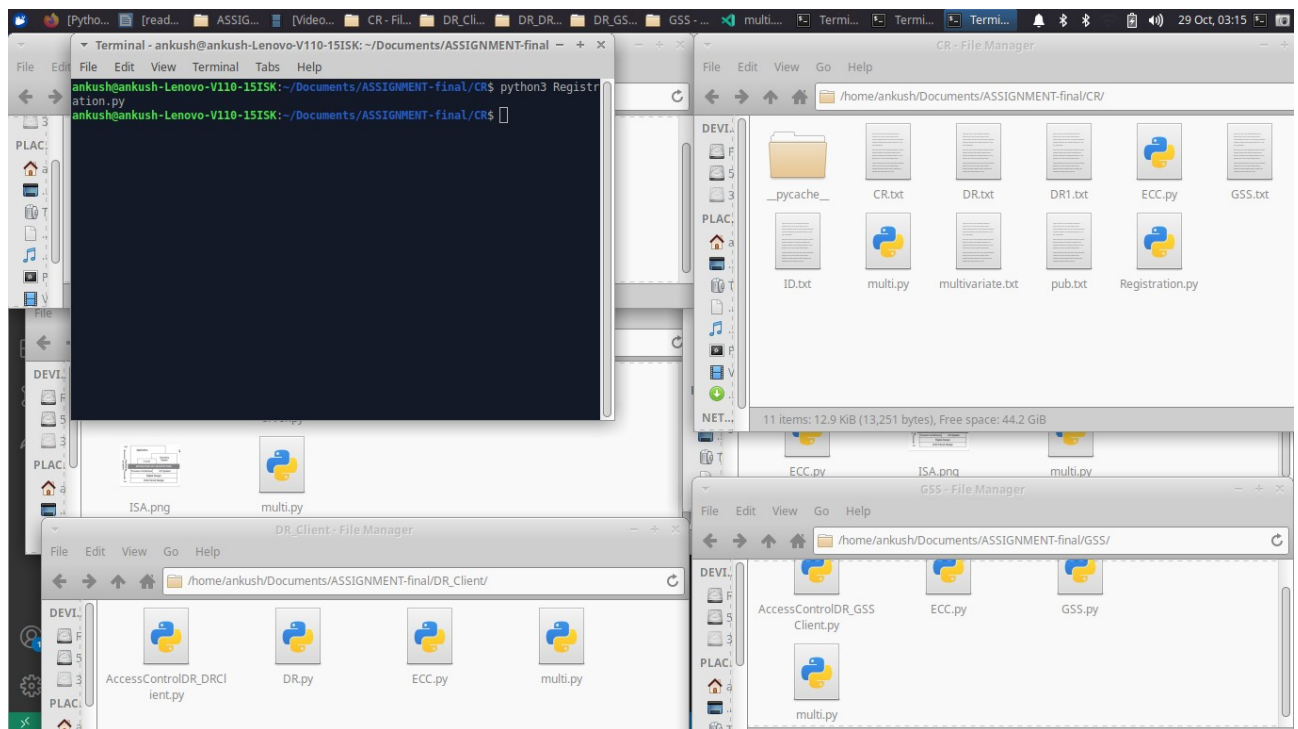
-----give the file name in the " **GSS** " terminal ----

ISA.png

the file will send. the encrypted file can be seen in " credentials.enc "

Simulation:





```
Terminal - ankush@ankush-Lenovo-V110-15ISK: ~/Documents/ASSIGNMENT-final/DR_Client
ankush@ankush-Lenovo-V110-15ISK:~/Documents/ASSIGNMENT-final/DR_Client$ python3 DR.py
87169124069017711878327981256116950197408930307307019319364991949801330426382: (107302048200197
748080329842779110651309773134103708730845698704446838282454228, 68395909270231352877091804807
018966235145696660054840630783109872667841861084): 44756381945528570964936596636853678327149198
5272848948695738626726382617038741254829922767367408539007544369087287820758273713694662985592
548815662198798: 1603921717
(113122910888073148308880047094683019646712826196178688690794693423917720729439, 3631908884266
1974356152304258741404856289308365528677177452277066426897053634) 6158945813528535965328291751
9647587874836376089798745822451611078411575490490 (1005130176294643716879034538575405428884312
45693351546708489637361228233230073, 843498606697904417982724741402150877119822218279910425181
54002953787498093102)
(42937927901377972153807158181546169984601210559508462332136725852233962147578, 11094452348297
9769437276179025340889630822205050801049552585845464319426775650)
(42937927901377972153807158181546169984601210559508462332136725852233962147578, 11094452348297
9769437276179025340889630822205050801049552585845464319426775650)
    session key established
11922889135834575194252218367420905748736470813528217491392336693594051085211
Enter 1 to request a file
Enter 2 quit
1
Enter the file name
ISA.png
waiting
REQCOM 26360
Successfully received the file
Enter 1 to request a file
Enter 2 quit
1
[]

Terminal - ankush@ankush-Lenovo-V110-15ISK: ~/Documents/ASSIGNMENT-final/DR_DR_Server
ankush@ankush-Lenovo-V110-15ISK:~/Documents/ASSIGNMENT-final/DR_DR_Server$ python3 DR_Server.p
y
11922889135834575194252218367420905748736470813528217491392336693594051085211
ISA.png
gotsize
Sending.....
[]
```

```
Terminal - ankush@ankush-Lenovo-V110-15ISK: ~/Documents/ASSIGNMENT-final/DR_Client
ankush@ankush-Lenovo-V110-15ISK:~/Documents/ASSIGNMENT-final/DR_Client$ python3 DR.py
87169124069017711878327981256116950197408930307307019319364991949801330426382: (107302048200197
748080329842779110651309773134103708730845698704446838282454228, 68395909270231352877091804807
018966235145696660054840630783109872667841861084): 44756381945528570964936596636853678327149198
5272848948695738626726382617038741254829922767367408539007544369087287820758273713694662985592
548815662198798: 1603921717
(113122910888073148308880047094683019646712826196178688690794693423917720729439, 3631908884266
1974356152304258741404856289308365528677177452277066426897053634) 6158945813528535965328291751
9647587874836376089798745822451611078411575490490 (1005130176294643716879034538575405428884312
45693351546708489637361228233230073, 843498606697904417982724741402150877119822218279910425181
54002953787498093102)
(42937927901377972153807158181546169984601210559508462332136725852233962147578, 11094452348297
9769437276179025340889630822205050801049552585845464319426775650)
(42937927901377972153807158181546169984601210559508462332136725852233962147578, 11094452348297
9769437276179025340889630822205050801049552585845464319426775650)
    session key established
11922889135834575194252218367420905748736470813528217491392336693594051085211
Enter 1 to request a file
Enter 2 quit
1
Enter the file name
ISA.png
waiting
REQCOM 26360
Successfully received the file
Enter 1 to request a file
Enter 2 quit
1
Enter the file name
a.mp4
waiting
REQCOM 9840497
Successfully received the file
Enter 1 to request a file
Enter 2 quit
1
[]

Terminal - ankush@ankush-Lenovo-V110-15ISK: ~/Documents/ASSIGNMENT-final/DR_DR_Server
ankush@ankush-Lenovo-V110-15ISK:~/Documents/ASSIGNMENT-final/DR_DR_Server$ python3 DR_Server.p
y
11922889135834575194252218367420905748736470813528217491392336693594051085211
ISA.png
gotsize
Sending.....
a.mp4
gotsize
Sending.....
[]
```

