Lab Program-III

Name:Abhiruchi Verma
USN: 1NT19IS002

HDFS File System Command

Initial commands

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~$ cd $HADOOP_HOME/sbin
```

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ ./start-all.sh
WARNING: Attempting to start all Apache Hadoop daemons as hdoop in 10 seconds.
WARNING: This is not a recommended production deployment configuration.
WARNING: Use CTRL-C to abort.
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [admin1-HP-280-G4-MT-Business-PC]
Starting resourcemanager
Starting nodemanagers
```

1) Jps:

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ jps
11056 Jps
10439 ResourceManager
10009 DataNode
9866 NameNode
10251 SecondaryNameNode
10589 NodeManager
```

2)hdfs fsck

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ hdfs fsck /
Connecting to namenode via http://localhost:9870/fsck?ugi=hdoop&path=%2F
FSCK started by hdoop (auth:SIMPLE) from /127.0.0.1 for path / at Tue Jun 14 14:24:31 IST 2022

Status: HEALTHY
 Number of data-nodes:  1
 Number of racks:               1
 Total dirs:                    18
 Total symlinks:                0

Replicated Blocks:
 Total size:    206 B
 Total files:   12
 Total blocks (validated):      4 (avg. block size 51 B)
 Minimally replicated blocks:   4 (100.0 %)
 Over-replicated blocks:        0 (0.0 %)
 Under-replicated blocks:       0 (0.0 %)
 Mis-replicated blocks:         0 (0.0 %)
 Default replication factor:    1
 Average block replication:     1.0
 Missing blocks:                0
 Corrupt blocks:                0
 Missing replicas:              0 (0.0 %)

Erasure Coded Block Groups:
 Total size:    0 B
 Total files:   0
 Total block groups (validated):        0
 Minimally erasure-coded block groups:  0
 Over-erasure-coded block groups:       0
 Under-erasure-coded block groups:      0
 Unsatisfactory placement block groups: 0
 Average block group size:      0.0
 Missing block groups:          0
 Corrupt block groups:          0
 Missing internal blocks:       0
FSCK ended at Tue Jun 14 14:24:31 IST 2022 in 8 milliseconds
```

```
Erasure Coded Block Groups:
 Total size:    0 B
 Total files:   0
 Total block groups (validated):        0
 Minimally erasure-coded block groups:  0
 Over-erasure-coded block groups:       0
 Under-erasure-coded block groups:      0
 Unsatisfactory placement block groups: 0
 Average block group size:      0.0
 Missing block groups:          0
 Corrupt block groups:          0
 Missing internal blocks:       0
FSCK ended at Tue Jun 14 14:24:31 IST 2022 in 8 milliseconds


The filesystem under path '/' is HEALTHY
```

4)To list all the les in HDFS directory (/)

hdfs dfs -ls

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ hdfs dfs -ls /
Found 8 items
drwxr-xr-x   - hdoop supergroup          0 2022-06-02 14:13 /1nt19is165
drwxr-xr-x   - hdoop supergroup          0 2022-06-02 13:48 /abc
drwxr-xr-x   - hdoop supergroup          0 2022-06-13 15:37 /amith
drwxr-xr-x   - hdoop supergroup          0 2022-06-14 14:26 /avy
drwxr-xr-x   - hdoop supergroup          0 2022-06-02 13:54 /sunayana_m
drwxrwxr-x   - hdoop supergroup          0 2021-07-28 12:58 /tmp
drwxr-xr-x   - hdoop supergroup          0 2022-05-26 15:43 /ullaas
drwxr-xr-x   - hdoop supergroup          0 2021-07-28 12:56 /user
```

5)To Make a directory in HDFS

$ hdfs dfs -mkdir /avy

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ hdfs dfs -mkdir /avy
```

Browse Directory

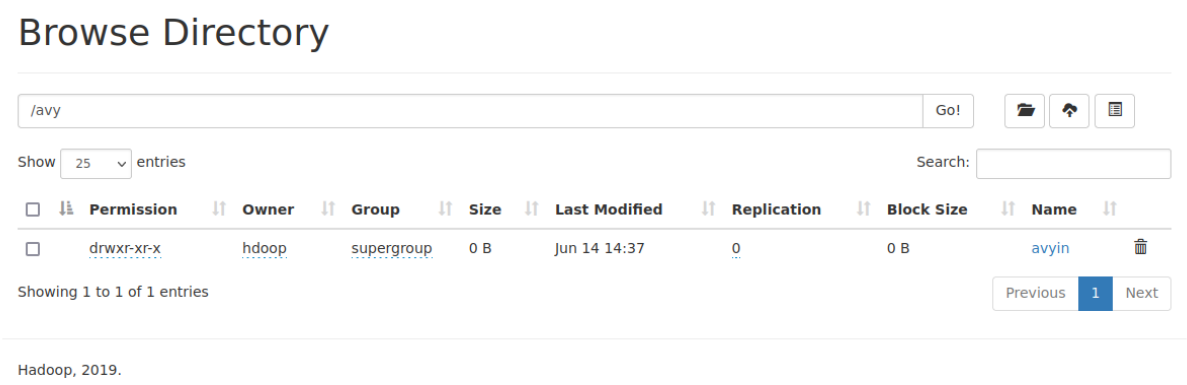
/ Go!

Show 25 entries Search:

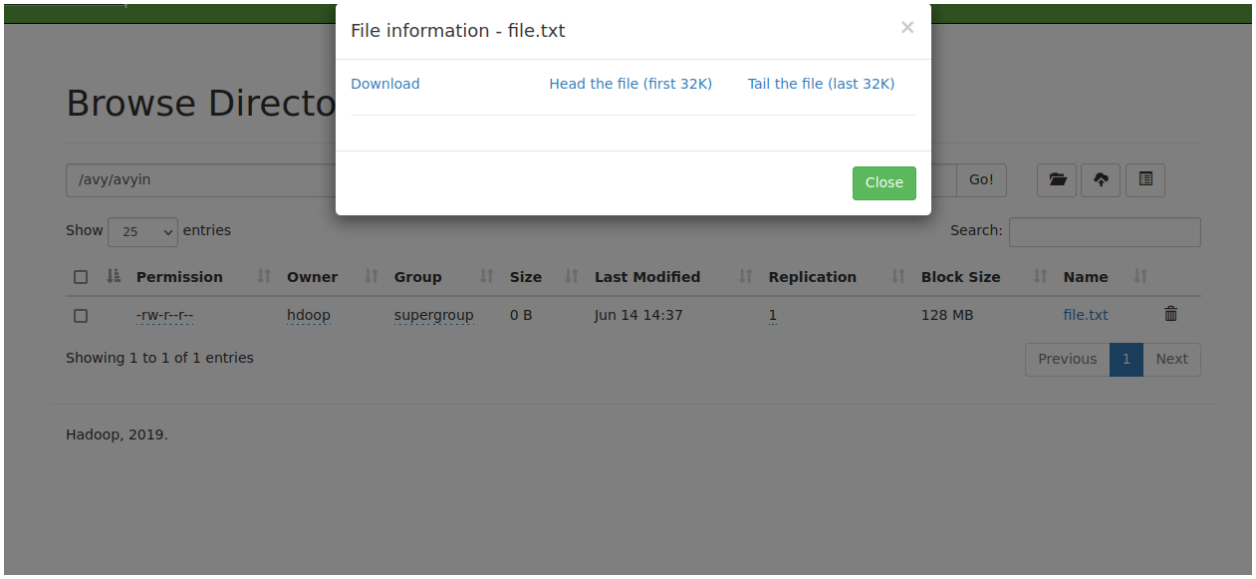
	Permission	Owner	Group	Size	Last Modified	Replication	Block Size	Name
☐	drwxr-xr-x	hdoop	supergroup	0 B	Jun 02 14:13	0	0 B	1nt19is165
☐	drwxr-xr-x	hdoop	supergroup	0 B	Jun 02 13:48	0	0 B	abc
☐	drwxr-xr-x	hdoop	supergroup	0 B	Jun 13 15:37	0	0 B	amith
☐	drwxr-xr-x	hdoop	supergroup	0 B	Jun 14 14:26	0	0 B	avy
☐	drwxr-xr-x	hdoop	supergroup	0 B	Jun 02 13:54	0	0 B	sunayana_m
☐	drwxrwxr-x	hdoop	supergroup	0 B	Jul 28 2021	0	0 B	tmp
☐	drwxr-xr-x	hdoop	supergroup	0 B	May 26 15:43	0	0 B	ullaas
☐	drwxr-xr-x	hdoop	supergroup	0 B	Jul 28 2021	0	0 B	user

Showing 1 to 8 of 8 entries Previous 1 Next

6)hdfs dfs -mkdir -p /avy/avyin



7) To create an empty le in HDFS directory
hdfs dfs -touchz /avy/avyin/file.txt



Empty file:

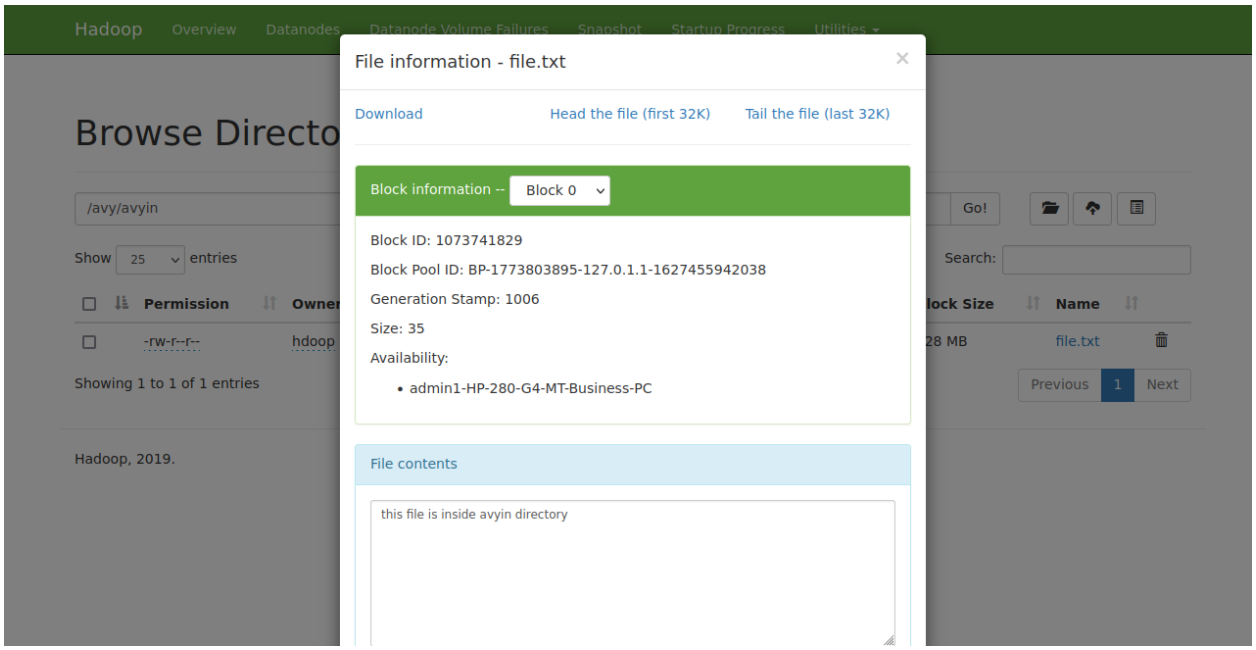
8) To check the size of the le - du
hdfs dfs -du -s /avy/avyin/file.txt

0 0 /avy/avyin/file.txt

9)To add the content to the existing le - appendToFile

hdfs dfs -appendToFile - /avy/avyin/file.txt

this file is inside avyin directory
//press ctrld(twice)
2022-06-14 14:42:31,001 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false



10) hdfs dfs -du -s /avy/avyin/file.txt
35 35 /avy/avyin/file.txt

11)To display contents of the file present in the hdfs - cat
hdfs dfs -cat /avy/avyin/file.txt

2022-06-14 14:47:30,744 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
this file is inside avyin directory

12)To copy a le from the local lesystem to HDFS- copyFromLocal/(-put)
$hdfs dfs -copyFromLocal local_file hdfs_directory
$hdfs dfs -put local_file hdfs_directory

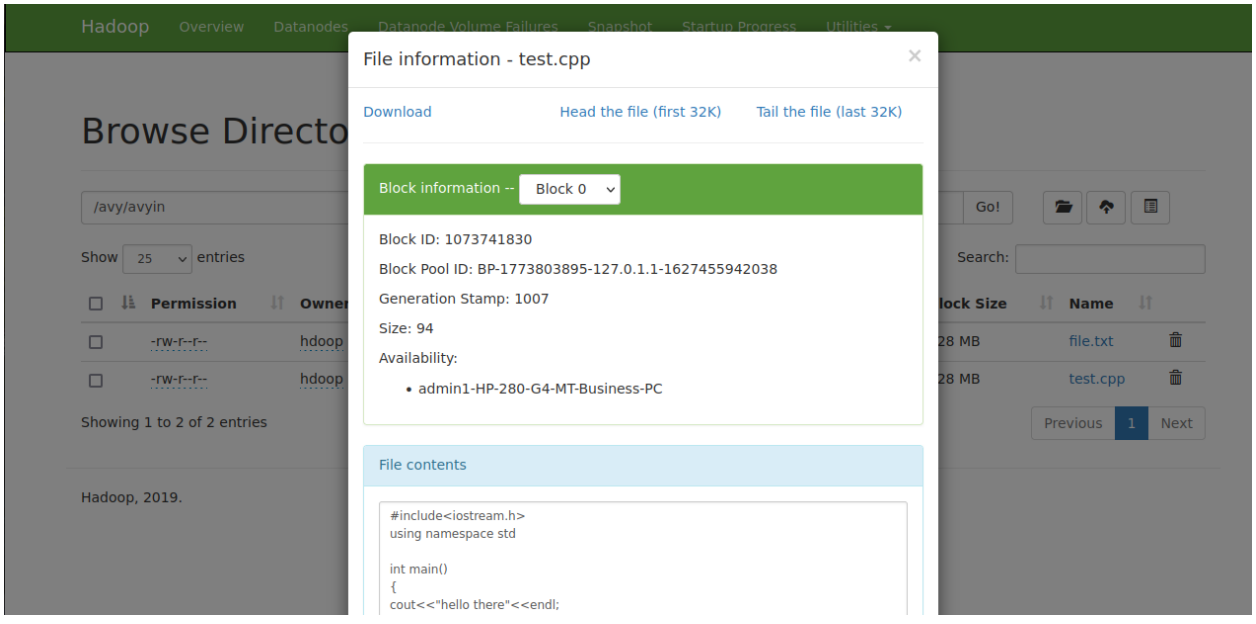
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ cd ~

hdoop@admin1-HP-280-G4-MT-Business-PC:~$ vim test.cpp

hdoop@admin1-HP-280-G4-MT-Business-PC:~$ pwd

hdoop@admin1-HP-280-G4-MT-Business-PC:~$ cd $HADOOP_HOME/sbin
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ ./start-all.sh

$ hdfs dfs -copyFromLocal ~/test.cpp /avy/avyin/



13)To copy a le from HDFS to local filesystem - copyToLocal/(-get)

$ hdfs dfs -copyToLocal hdfs_local_file local_path_file

$ hdfs dfs -get hdfs_local_file local_path_file

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ pwd
/home/hdoop/hadoop-3.2.1/sbin
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ hdfs dfs -copyToLocal /avy/avyin/file.txt /home/hdoop/hadoop-3.2.1/sbin
2022-06-14 15:22:26,648 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = false
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ ls
apache-hive-3.1.2-bin.tar.gz  httpfs.sh                        start-all.sh         start-yarn.sh     stop-secure-dns.sh
distribute-exclude.sh         kms.sh                           start-balancer.sh    stop-all.cmd      stop-yarn.cmd
FederationStateStore          mongodb-compass_1.26.1_amd64.deb start-dfs.cmd        stop-all.sh       stop-yarn.sh
file.txt                      mr-jobhistory-daemon.sh          start-dfs.sh         stop-balancer.sh  workers.sh
hadoop-daemon.sh              refresh-namenodes.sh             start-secure-dns.sh  stop-dfs.cmd      yarn-daemon.sh
hadoop-daemons.sh             start-all.cmd                    start-yarn.cmd       stop-dfs.sh       yarn-daemons.sh
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$
```

14)rm - remove command - remove the files o

```
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$ hdfs dfs -rm /avy/avyin/file.txt
Deleted /avy/avyin/file.txt
hdoop@admin1-HP-280-G4-MT-Business-PC:~/hadoop-3.2.1/sbin$
```

Browse Directory

/avy/avyin Go!

Show 25 entries Search:

Permission	Owner	Group	Size	Last Modified	Replication	Block Size	Name
-rw-r--r--	hdoop	supergroup	94 B	Jun 14 14:58	1	128 MB	test.cpp

Showing 1 to 1 of 1 entries Previous 1 Next

Hadoop, 2019.

Part 2

Prog file

```
package avy1p;

public class prog implements Interfirst ,Intersec{

    public static void main(String[] args) {
            // TODO Auto-generated method stub
            prog p=new prog();
            p.pf();
            p.sr();


    }

    @Override
    public void sr() {
            // TODO Auto-generated method stub
            System.out.println("function called sf");

    }

    @Override
    public void pf() {
            // TODO Auto-generated method stub
            System.out.println("function called pf");

    }

}
```

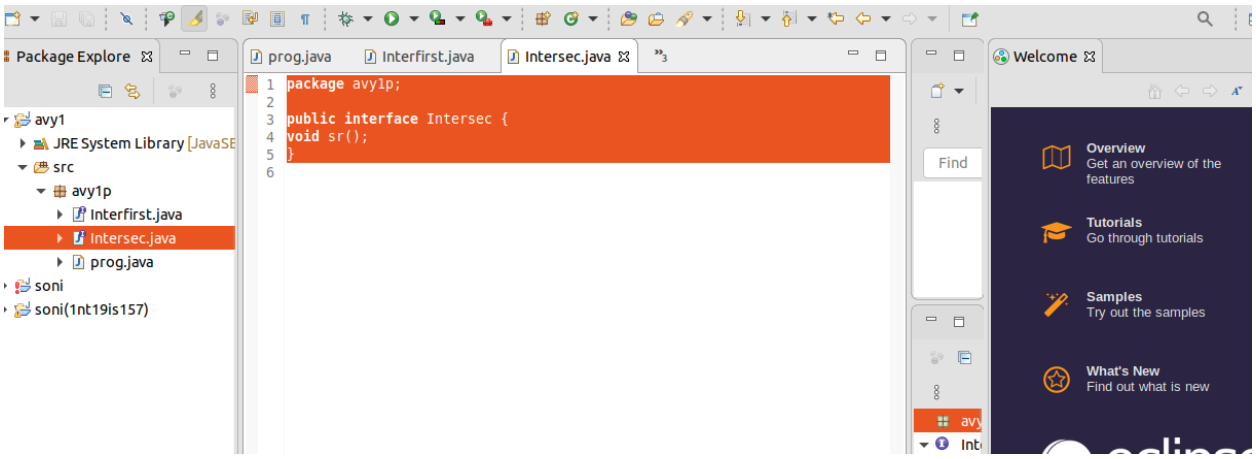
Interface files

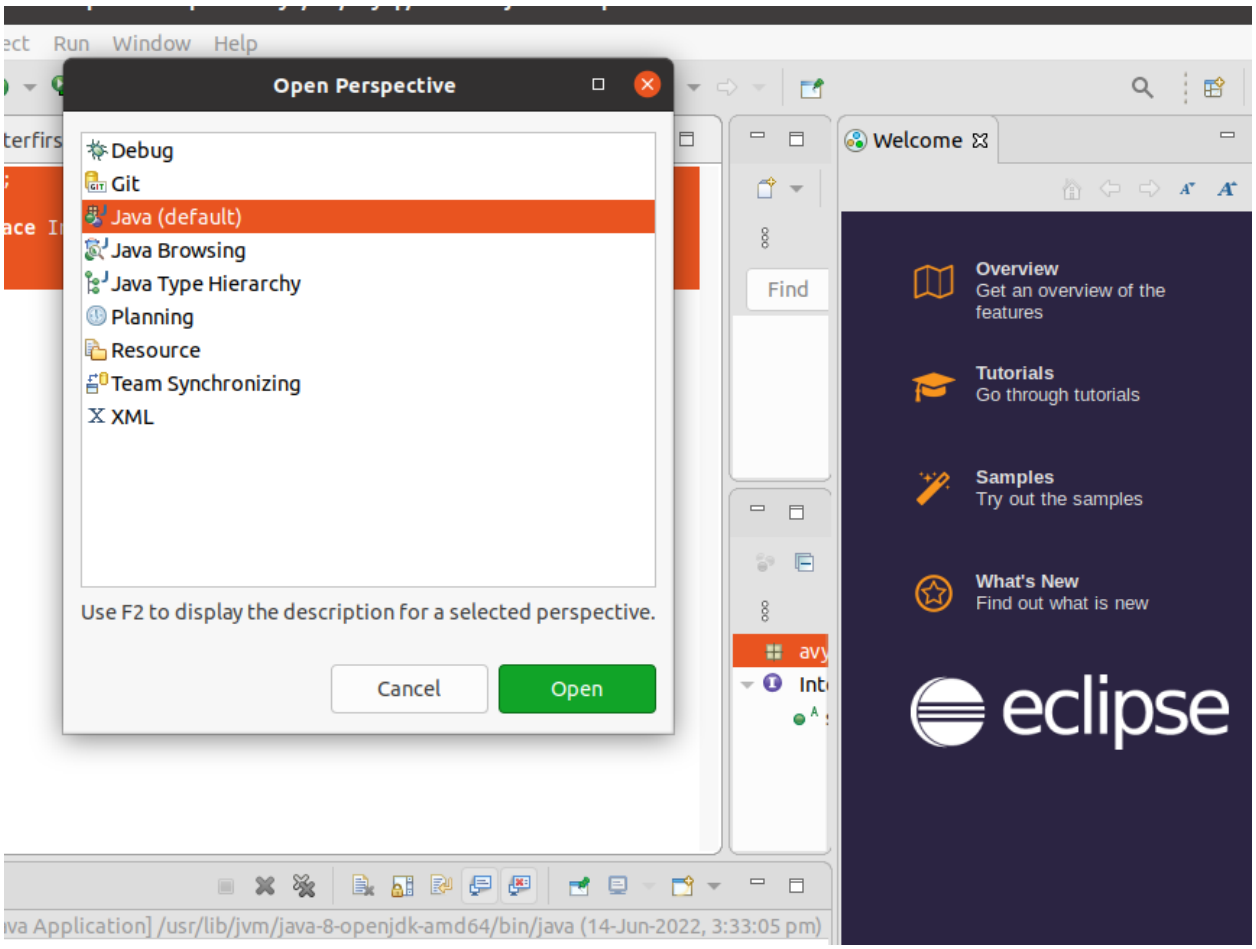
```
package avy1p;

public interface Interfirst {
    void pf();

}
```

Interface file

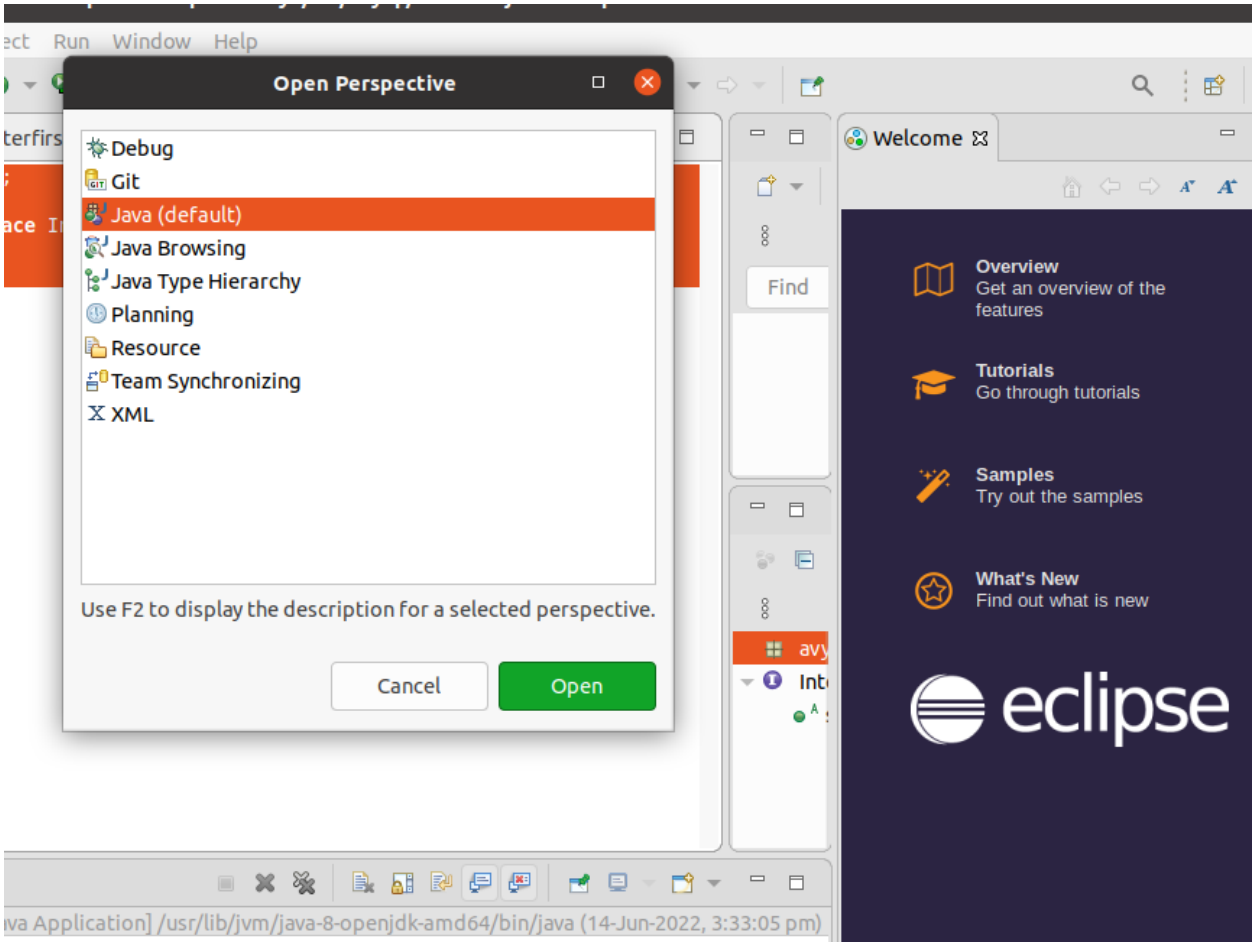
```
package avy1p;
```

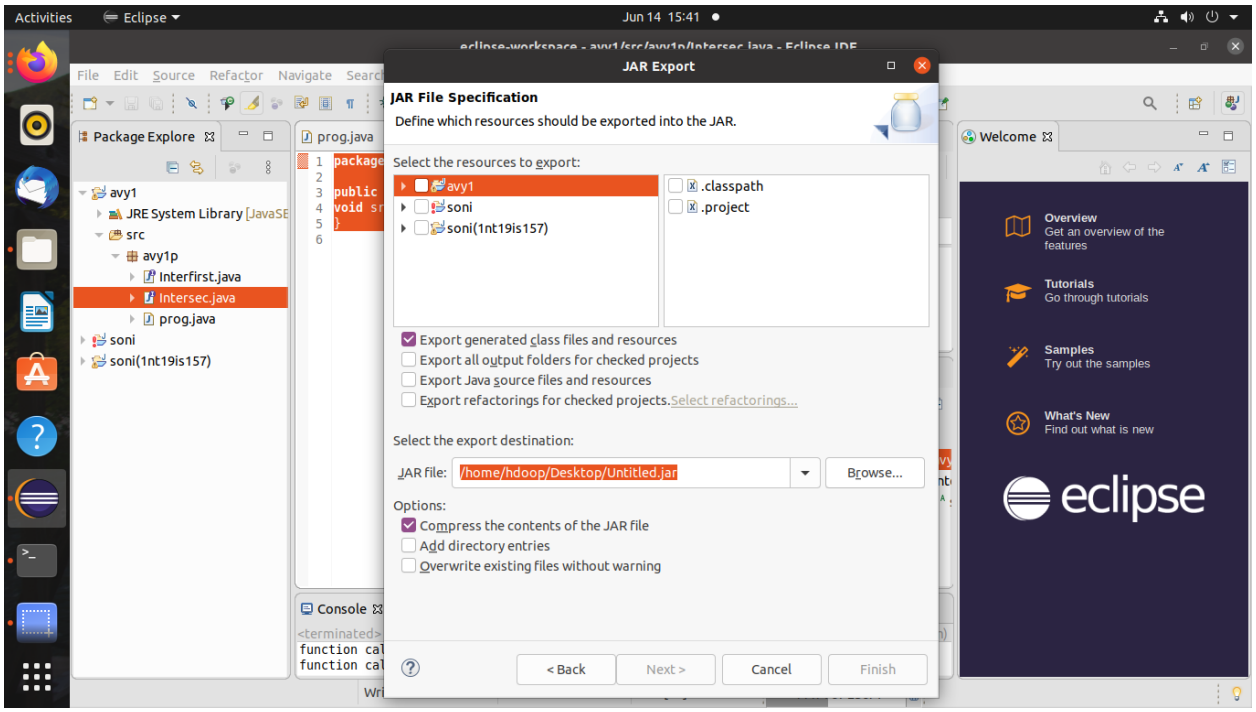
public interface Intersec {
void sr();
}

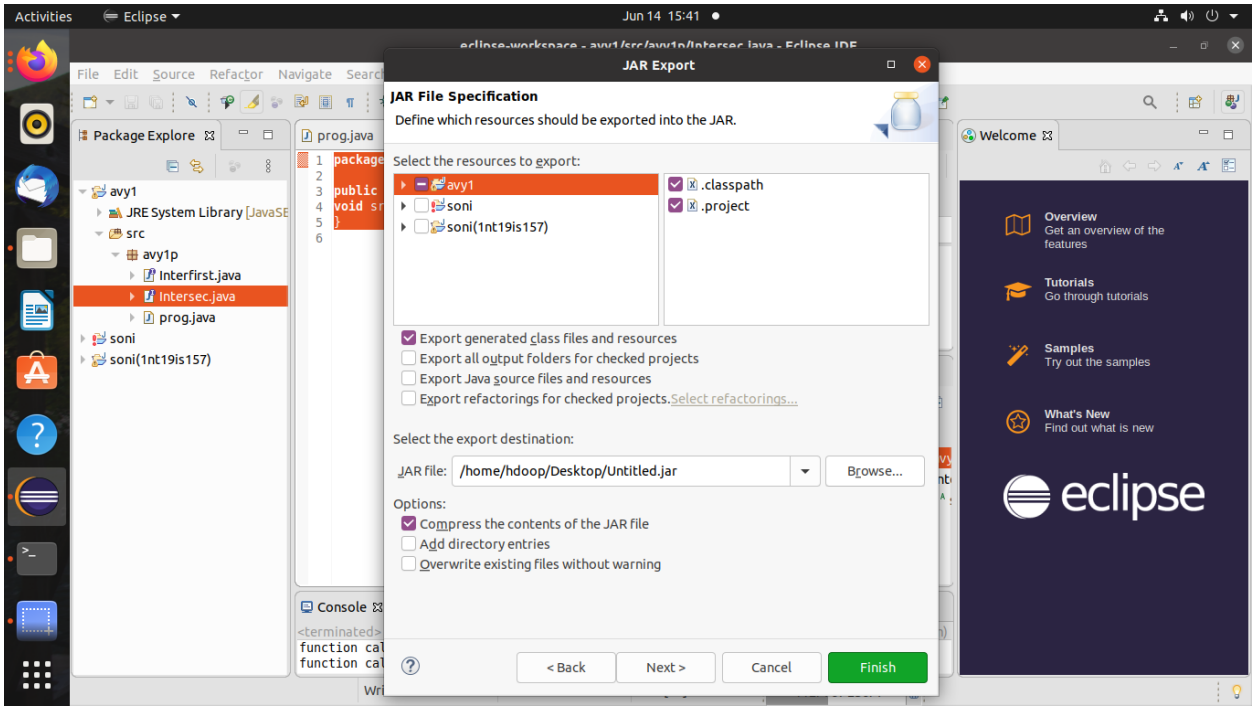


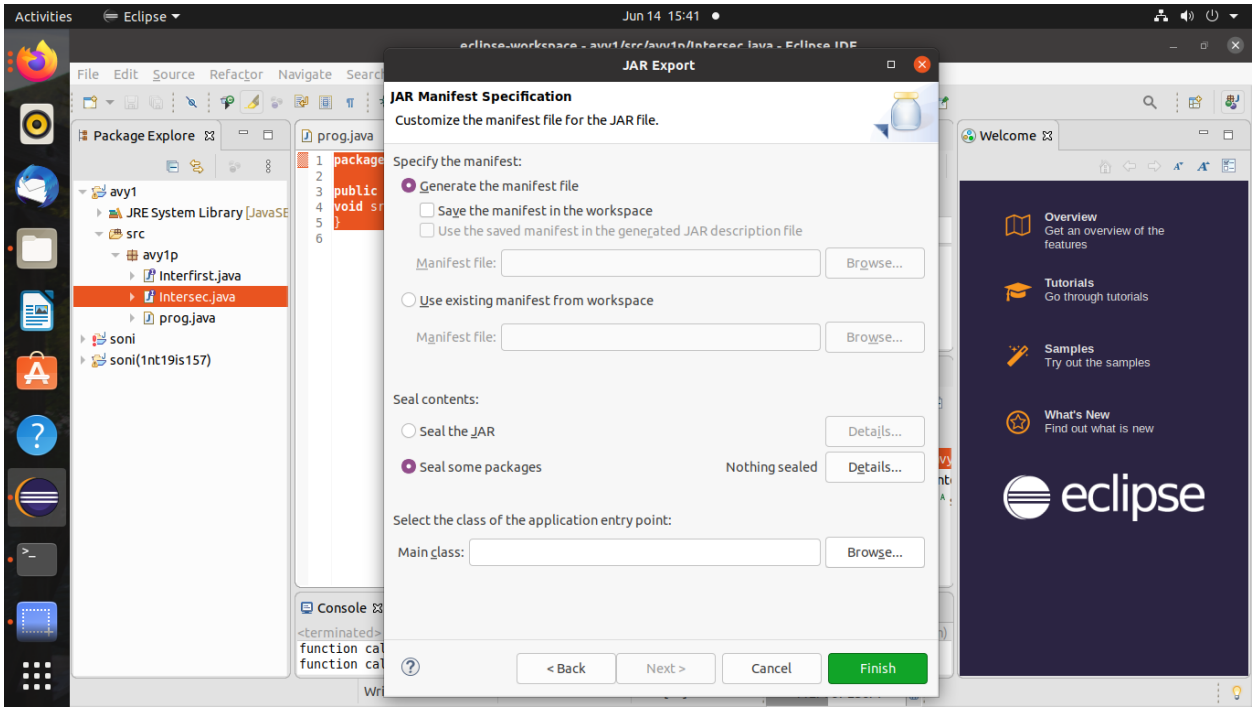


file->export->


Run Window Help
Open Perspective
Debug
Git
Java (default)
Java Browsing
Java Type Hierarchy
Planning
Resource
Team Synchronizing
XML
Use F2 to display the description for a selected perspective.
Cancel
Open
Welcome
Overview
Get an overview of the features
Tutorials
Go through tutorials
Samples
Try out the samples
What's New
Find out what is new
eclipse
Find


Activities
Eclipse
Jun 14 15:41
JAR Export
JAR File Specification
Define which resources should be exported into the JAR.
Select the resources to export:
avy1
soni
soni(1nt19is157)
.classpath
.project
Export generated class files and resources
Export all output folders for checked projects
Export Java source files and resources
Export refactorings for checked projects. Select refactorings...
Select the export destination:
JAR file: /home/hdoop/Desktop/Untitled.jar
Browse...
Options:
Compress the contents of the JAR file
Add directory entries
Overwrite existing files without warning
< Back
Next >
Cancel
Finish
Package Explore
JRE System Library [JavaSE
src
avy1p
Interfirst.java
Intersec.java
prog.java
Console
Welcome
Overview
Get an overview of the features
Tutorials
Go through tutorials
Samples
Try out the samples
What's New
Find out what is new
eclipse






```
hdoop@admin1-HP-280-G4-MT-Business-PC:~$ java -jar /home/hdoop/Desktop/1nt19is002.jar
function called pf
function called sf
hdoop@admin1-HP-280-G4-MT-Business-PC:~$
```