

How to resolve getting error “Permission denied” while creating database in Itversity as shown below

```
119      raise
AnalysisException: org.apache.hadoop.hive.q1.metadata.HiveException: MetaException(message:Got exception: org.apache.hadoop.security.AccessControlException
Permission denied: user=itv009388, access=WRITE, inode="/user":hdfs:supergroup:drwxr-xr-x
    at org.apache.hadoop.hdfs.server.namenode.FSPermissionChecker.check(FSPermissionChecker.java:496)
    at org.apache.hadoop.hdfs.server.namenode.FSPermissionChecker.checkPermission(FSPermissionChecker.java:336)
    at org.apache.hadoop.hdfs.server.namenode.FSPermissionChecker.checkPermissionWithContext(FSPermissionChecker.java:360)
    at org.apache.hadoop.hdfs.server.namenode.FSPermissionChecker.checkPermission(FSPermissionChecker.java:239)
    at org.apache.hadoop.hdfs.server.namenode.FSDirectory.checkPermission(FSDirectory.java:1909)
    at org.apache.hadoop.hdfs.server.namenode.FSDirectory.checkPermission(FSDirectory.java:1893)
    at org.apache.hadoop.hdfs.server.namenode.FSDirectory.checkAncestorAccess(FSDirectory.java:1852)
    at org.apache.hadoop.hdfs.server.namenode.FSDirMkdirOp.mkdirs(FSDirMkdirOp.java:60)
    at org.apache.hadoop.hdfs.server.namenode.FSNamesystem.mkdirs(FSNamesystem.java:3407)
    at org.apache.hadoop.hdfs.server.namenode.NameNodeRpcServer.mkdirs(NameNodeRpcServer.java:1161)
    at org.apache.hadoop.hdfs.protocolPB.ClientNamenodeProtocolServerSideTranslatorPB.mkdirs(ClientNamenodeProtocolServerSideTranslatorPB.java:7
39)
    at org.apache.hadoop.hdfs.protocol.proto.ClientNamenodeProtocolProtos$ClientNamenodeProtocol$2.callBlockingMethod(ClientNamenodeProtocolProt
os.java)
    at org.apache.hadoop.ipc.ProtobufRpcEngine2$Server$ProtoBufRpcInvoker.call(ProtobufRpcEngine2.java:532)
    at org.apache.hadoop.ipc.RPC$Server.call(RPC.java:1070)
    at org.apache.hadoop.ipc.Server$RpcCall.run(Server.java:1020)
    at org.apache.hadoop.ipc.Server$RpcCall.run(Server.java:948)
    at java.security.AccessController.doPrivileged(Native Method)
    at javax.security.auth.Subject.doAs(Subject.java:422)
    at org.apache.hadoop.security.UserGroupInformation.doAs(UserGroupInformation.java:1845)
    at org.apache.hadoop.ipc.Server$Handler.run(Server.java:2952)
)
```

Solution:

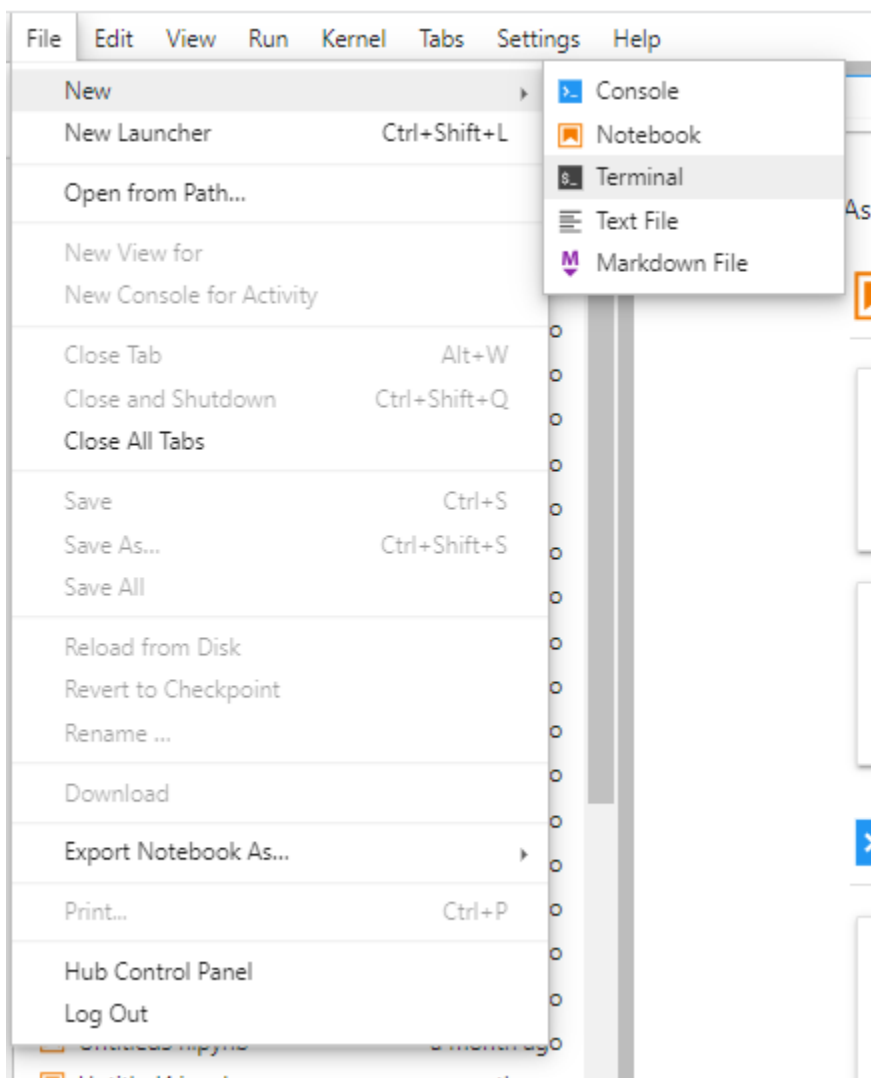
Note: “trendytech_assignments_week5” this is already a database created by Sumit Sir.

Please create your own database with a unique name like if your username is like tv006753 then name the database like tv006753_week5_assignment.

Before creating a database please set the path of the warehouse directory once then try to create a database and tables.

For setting the path of warehouse directory follow below steps:

1. Please first open the terminal. Refer below Screenshot. File => New => Terminal



2. Then open a hive environment using hive command as shown below

```
[itv006753@g01 ~]$ hive
```

```
Launcher x itv006753@g01:~ x
[itv006753@g01 ~]$ hive
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/opt/apache-hive-3.1.2-bin/lib/log4j-slf4j-impl-2.10.0.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/opt/hadoop-3.3.0/share/hadoop/common/lib/slf4j-log4j12-1.7.25.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
Hive Session ID = 2481b5ca-383f-4384-add5-8ce49bfeea86

Logging initialized using configuration in file:/opt/apache-hive-3.1.2-bin/conf/hive-log4j2.properties Async: true
Hive Session ID = bde5a29a-ab62-4152-b07d-1bb95425be54
Hive-on-MR is deprecated in Hive 2 and may not be available in the future versions. Consider using a different execution engine (i.e. spark, tez) or using Hive 1.X releases.
hive>
```

3. Now, in hive please set the below property then you will be able to create Databases and tables.

set hive.metastore.warehouse.dir=/user/{username}/warehouse;

Note: In above code please replace the {username} with your id and try. Refer below Screenshot.

```
itv006753@g01:~ x
[itv006753@g01 ~]$ hive
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/opt/apache-hive-3.1.2-bin/lib/log4j-slf4j-impl-2.10.0.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/opt/hadoop-3.3.0/share/hadoop/common/lib/slf4j-log4j12-1.7.25.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
Hive Session ID = d9ab1abf-b58d-4bf1-b5d2-aca2bb88e1fd

Logging initialized using configuration in file:/opt/apache-hive-3.1.2-bin/conf/hive-log4j2.properties Async: true
Hive Session ID = e6b120c9-8588-4626-9ddb-8defddb06dc2
Hive-on-MR is deprecated in Hive 2 and may not be available in the future versions. Consider using a different execution engine (i.e. spark, tez) or using Hive 1.X releases.
hive> set hive.metastore.warehouse.dir=/user/itv006753/warehouse;
hive>
```

After setting this property, please restart the kernel and then create the spark session.

Now try to create the database.

Note: Also please use the below boiler plate code.

In the code below please replace the {username} with your id and try. Like if your username is itv006753 then configuration becomes config("spark.sql.warehouse.dir", "/user/itv006753/warehouse").

from pyspark.sql import SparkSession

```
spark = SparkSession. \
builder. \
config('spark.shuffle.useOldFetchProtocol', 'true'). \
config('spark.ui.port','0'). \
config("spark.sql.warehouse.dir", "/user/{username}/warehouse"). \
enableHiveSupport(). \
master('yarn'). \
getOrCreate()
```