bigdata@bigdata-VirtualBox:~/Desktop/A3$ hbase shell
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/usr/share/hadoop-2.7.3/share/hadoop/common/lib/slf4j-log4j12-1.7.10.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/usr/share/hbase-2.2.2/lib/client-facing-thirdparty/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.slf4j.impl.Log4jLoggerFactory]
HBase Shell
Use "help" to get list of supported commands.
Use "exit" to quit this interactive shell.
For Reference, please visit: http://hbase.apache.org/2.0/book.html#shell
Version 2.2.2, re6513a76c91cceda95dad7af246ac81d46fa2589, Sat Oct 19 10:10:12 UTC 2019
Took 0.0020 seconds
hbase(main):001:0> source '/home/bigdata/Desktop/A3/task2-2025S4.hb'
task2-2025S4.hb(main):002:0> create 'task2',
'APPLICATION','EMPLOYER','APPLICANT','POSITION'
Created table task2
Took 1.5685 seconds
=> Hbase::Table - task2
task2-2025S4.hb(main):003:0>
task2-2025S4.hb(main):004:0* put 'task2','employer|SIM','EMPLOYER:ename','Singapore Institute of Management'
Took 0.0905 seconds
task2-2025S4.hb(main):005:0> put 'task2','employer|SIM','EMPLOYER:phone','1234567890'
Took 0.0108 seconds
task2-2025S4.hb(main):006:0> put 'task2','employer|UOW','EMPLOYER:ename','University of Wollongong'
Took 0.0052 seconds
task2-2025S4.hb(main):007:0> put 'task2','employer|UOW','EMPLOYER:Phone','0987654321'
Took 0.0022 seconds
task2-2025S4.hb(main):008:0> put 'task2','position|312','POSITION:position-number','312'
Took 0.0046 seconds
task2-2025S4.hb(main):009:0> put 'task2','position|312','POSITION:title','Big Data Manager'
Took 0.0128 seconds
task2-2025S4.hb(main):010:0> put 'task2','position|312','POSITION:salary','600000'
Took 0.0052 seconds
task2-2025S4.hb(main):011:0> put 'task2','position|313','POSITION:position-number','313'
Took 0.0034 seconds
task2-2025S4.hb(main):012:0> put 'task2','position|313','POSITION:title','Very Big Data Manager'
Took 0.0143 seconds
task2-2025S4.hb(main):013:0> put 'task2','position|313','POSITION:salary','700000'
Took 0.0047 seconds
task2-2025S4.hb(main):014:0> put 'task2','applicant|007','APPLICANT:number','007'
Took 0.0177 seconds
task2-2025S4.hb(main):015:0> put 'task2','applicant|007','APPLICANT:full-name','James Bond'
Took 0.0040 seconds
task2-2025S4.hb(main):016:0> put 'task2','applicant|007','APPLICANT:date-of-birth','01-01-1960'
Took 0.0108 seconds
task2-2025S4.hb(main):017:0> put 'task2','applicant|666','APPLICANT:number','666'
Took 0.0069 seconds
task2-2025S4.hb(main):018:0> put 'task2','applicant|666','APPLICANT:full-name','Very Big Data'

Took 0.0177 seconds
task2-2025S4.hb(main):019:0> put 'task2','applicant|666','APPLICANT:date-of-birth','01-01-1999'
Took 0.0182 seconds
task2-2025S4.hb(main):020:0> put 'task2','application|007|312|SIM|01','APPLICATION:application-number','01'
Took 0.0045 seconds
task2-2025S4.hb(main):021:0> put 'task2','application|007|312|SIM|01','APPLICATION:total-skills','5'
Took 0.0190 seconds
task2-2025S4.hb(main):022:0> put 'task2','application|007|312|SIM|01','APPLICATION:education-level','high'
Took 0.0044 seconds
task2-2025S4.hb(main):023:0> put 'task2','application|007|312|SIM|01','POSITION:position-number','312'
Took 0.0033 seconds
task2-2025S4.hb(main):024:0> put 'task2','application|007|312|SIM|01','APPLICANT:number','007'
Took 0.0043 seconds
task2-2025S4.hb(main):025:0> put 'task2','application|007|312|SIM|01','EMPLOYER:ename','SIM'
Took 0.0023 seconds
task2-2025S4.hb(main):026:0> put 'task2','application|666|312|SIM|02','APPLICATION:application-number','02'
Took 0.0043 seconds
task2-2025S4.hb(main):027:0> put 'task2','application|666|312|SIM|02','APPLICATION:total-skills','5'
Took 0.0027 seconds
task2-2025S4.hb(main):028:0> put 'task2','application|666|312|SIM|02','APPLICATION:education-level','low'
Took 0.0061 seconds
task2-2025S4.hb(main):029:0> put 'task2','application|666|312|SIM|02','POSITION:position-number','312'
Took 0.0068 seconds
task2-2025S4.hb(main):030:0> put 'task2','application|666|312|SIM|02','APPLICANT:number','666'
Took 0.0039 seconds
task2-2025S4.hb(main):031:0> put 'task2','application|666|312|SIM|02','EMPLOYER:ename','SIM'
Took 0.0054 seconds
task2-2025S4.hb(main):032:0> put 'task2','application|007|313|UOW|03','APPLICATION:application-number','01'
Took 0.0028 seconds
task2-2025S4.hb(main):033:0> put 'task2','application|007|313|UOW|03','APPLICATION:total-skills','5'
Took 0.0026 seconds
task2-2025S4.hb(main):034:0> put 'task2','application|007|313|UOW|03','APPLICATION:education-level','high'
Took 0.0051 seconds
task2-2025S4.hb(main):035:0> put 'task2','application|007|313|UOW|03','POSITION:position-number','313'
Took 0.0038 seconds
task2-2025S4.hb(main):036:0> put 'task2','application|007|313|UOW|03','APPLICANT:number','007'
Took 0.0133 seconds
task2-2025S4.hb(main):037:0> put 'task2','application|007|313|UOW|03','EMPLOYER:ename','UOW'

Took 0.0072 seconds
task2-2025S4.hb(main):038:0>
task2-2025S4.hb(main):039:0* describe 'task2'

ERROR: org.apache.hadoop.hbase.regionserver.NoSuchColumnFamilyException: Column family
table does not exist in region hbase:meta,,1.1588230740 in table 'hbase:meta',
{TABLE_ATTRIBUTES => {IS_META => 'true', coprocessor$1 => '|
org.apache.hadoop.hbase.coprocessor.MultiRowMutationEndpoint|536870911|'}, {NAME => 'info',
BLOOMFILTER => 'NONE', VERSIONS => '10', IN_MEMORY => 'true',
KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL =>
'FOREVER', COMPRESSION => 'NONE', CACHE_DATA_IN_L1 => 'true', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '8192', REPLICATION_SCOPE => '0'}
        at org.apache.hadoop.hbase.regionserver.HRegion.checkFamily(HRegion.java:7763)
        at org.apache.hadoop.hbase.regionserver.HRegion.get(HRegion.java:6802)
        at org.apache.hadoop.hbase.regionserver.RSRpcServices.get(RSRpcServices.java:2049)
        at
org.apache.hadoop.hbase.protobuf.generated.ClientProtos$ClientService$2.callBlockingMethod(Cli
entProtos.java:33644)
        at org.apache.hadoop.hbase.ipc.RpcServer.call(RpcServer.java:2196)
        at org.apache.hadoop.hbase.ipc.CallRunner.run(CallRunner.java:112)
        at org.apache.hadoop.hbase.ipc.RpcExecutor.consumerLoop(RpcExecutor.java:133)
        at org.apache.hadoop.hbase.ipc.RpcExecutor$1.run(RpcExecutor.java:108)
        at java.lang.Thread.run(Thread.java:748)

For usage try 'help "describe"'

Took 0.3199 seconds
task2-2025S4.hb(main):040:0>
hbase(main):040:0> source '/home/bigdata/Desktop/A3/solution2.hb'
solution2.hb(main):041:0> # (1) Find all info about position 312
solution2.hb(main):042:0* get 'task2', '312'
COLUMN   CELL
0 row(s)
Took 0.0231 seconds
solution2.hb(main):043:0>
solution2.hb(main):044:0* # (2) Find application for position 312 by applicant 007
solution2.hb(main):045:0* get 'task2', '312-007'
COLUMN   CELL
0 row(s)
Took 0.0181 seconds
solution2.hb(main):046:0>
solution2.hb(main):047:0* # (3) Delete column family EMPLOYER
solution2.hb(main):048:0* alter 'task2', {NAME => 'EMPLOYER', METHOD => 'delete'}

ERROR: org.apache.hadoop.hbase.regionserver.NoSuchColumnFamilyException: Column family
table does not exist in region hbase:meta,,1.1588230740 in table 'hbase:meta',
{TABLE_ATTRIBUTES => {IS_META => 'true', coprocessor$1 => '|
org.apache.hadoop.hbase.coprocessor.MultiRowMutationEndpoint|536870911|'}, {NAME => 'info',
BLOOMFILTER => 'NONE', VERSIONS => '10', IN_MEMORY => 'true',
KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL =>
'FOREVER', COMPRESSION => 'NONE', CACHE_DATA_IN_L1 => 'true', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '8192', REPLICATION_SCOPE => '0'}

```
        at org.apache.hadoop.hbase.regionserver.HRegion.checkFamily(HRegion.java:7763)
        at org.apache.hadoop.hbase.regionserver.HRegion.get(HRegion.java:6802)
        at org.apache.hadoop.hbase.regionserver.RSRpcServices.get(RSRpcServices.java:2049)
        at
org.apache.hadoop.hbase.protobuf.generated.ClientProtos$ClientService$2.callBlockingMethod(Cli
entProtos.java:33644)
        at org.apache.hadoop.hbase.ipc.RpcServer.call(RpcServer.java:2196)
        at org.apache.hadoop.hbase.ipc.CallRunner.run(CallRunner.java:112)
        at org.apache.hadoop.hbase.ipc.RpcExecutor.consumerLoop(RpcExecutor.java:133)
        at org.apache.hadoop.hbase.ipc.RpcExecutor$1.run(RpcExecutor.java:108)
        at java.lang.Thread.run(Thread.java:748)

For usage try 'help "alter"'

Took 0.0200 seconds
solution2.hb(main):049:0>
solution2.hb(main):050:0* # (4) Add new column to POSITION: total-app-count
solution2.hb(main):051:0* alter 'task2', {NAME => 'POSITION', VERSIONS => 1}

ERROR: org.apache.hadoop.hbase.regionserver.NoSuchColumnFamilyException: Column family
table does not exist in region hbase:meta,,1.1588230740 in table 'hbase:meta',
{TABLE_ATTRIBUTES => {IS_META => 'true', coprocessor$1 => '|
org.apache.hadoop.hbase.coprocessor.MultiRowMutationEndpoint|536870911|'}, {NAME => 'info',
BLOOMFILTER => 'NONE', VERSIONS => '10', IN_MEMORY => 'true',
KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL =>
'FOREVER', COMPRESSION => 'NONE', CACHE_DATA_IN_L1 => 'true', MIN_VERSIONS =>
'0', BLOCKCACHE => 'true', BLOCKSIZE => '8192', REPLICATION_SCOPE => '0'}
        at org.apache.hadoop.hbase.regionserver.HRegion.checkFamily(HRegion.java:7763)
        at org.apache.hadoop.hbase.regionserver.HRegion.get(HRegion.java:6802)
        at org.apache.hadoop.hbase.regionserver.RSRpcServices.get(RSRpcServices.java:2049)
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org.apache.hadoop.hbase.protobuf.generated.ClientProtos$ClientService$2.callBlockingMethod(Cli
entProtos.java:33644)
        at org.apache.hadoop.hbase.ipc.RpcServer.call(RpcServer.java:2196)
        at org.apache.hadoop.hbase.ipc.CallRunner.run(CallRunner.java:112)
        at org.apache.hadoop.hbase.ipc.RpcExecutor.consumerLoop(RpcExecutor.java:133)
        at org.apache.hadoop.hbase.ipc.RpcExecutor$1.run(RpcExecutor.java:108)
        at java.lang.Thread.run(Thread.java:748)

For usage try 'help "alter"'

Took 0.0096 seconds
solution2.hb(main):052:0>
solution2.hb(main):053:0* # Update values (assuming positions 312, 400 exist)
solution2.hb(main):054:0* put 'task2', '312', 'POSITION:totalapps', '2'
Took 0.0041 seconds
solution2.hb(main):055:0> put 'task2', '400', 'POSITION:totalapps', '1'
Took 0.0174 seconds
solution2.hb(main):056:0>
solution2.hb(main):057:0* # (5) Increase versions in APPLICANT cells
solution2.hb(main):058:0* alter 'task2', {NAME => 'APPLICANT', VERSIONS => 5}
```

ERROR: org.apache.hadoop.hbase.regionserver.NoSuchColumnFamilyException: Column family table does not exist in region hbase:meta,,1.1588230740 in table 'hbase:meta', {TABLE_ATTRIBUTES => {IS_META => 'true', coprocessor$1 => '| org.apache.hadoop.hbase.coprocessor.MultiRowMutationEndpoint|536870911|'}, {NAME => 'info', BLOOMFILTER => 'NONE', VERSIONS => '10', IN_MEMORY => 'true', KEEP_DELETED_CELLS => 'FALSE', DATA_BLOCK_ENCODING => 'NONE', TTL => 'FOREVER', COMPRESSION => 'NONE', CACHE_DATA_IN_L1 => 'true', MIN_VERSIONS => '0', BLOCKCACHE => 'true', BLOCKSIZE => '8192', REPLICATION_SCOPE => '0'}
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        at org.apache.hadoop.hbase.regionserver.HRegion.get(HRegion.java:6802)
        at org.apache.hadoop.hbase.regionserver.RSRpcServices.get(RSRpcServices.java:2049)
        at org.apache.hadoop.hbase.protobuf.generated.ClientProtos$ClientService$2.callBlockingMethod(ClientProtos.java:33644)
        at org.apache.hadoop.hbase.ipc.RpcServer.call(RpcServer.java:2196)
        at org.apache.hadoop.hbase.ipc.CallRunner.run(CallRunner.java:112)
        at org.apache.hadoop.hbase.ipc.RpcExecutor.consumerLoop(RpcExecutor.java:133)
        at org.apache.hadoop.hbase.ipc.RpcExecutor$1.run(RpcExecutor.java:108)
        at java.lang.Thread.run(Thread.java:748)

For usage try 'help "alter"'

Took 0.0108 seconds
solution2.hb(main):059:0>
solution2.hb(main):060:0* scan 'task2'
ROW   COLUMN+CELL
 312   column=POSITION:totalapps, timestamp=1763043940865, value=2

 400   column=POSITION:totalapps, timestamp=1763043940877, value=1

 applicant|007   column=APPLICANT:date-of-birth, timestamp=1763043927303, value=01-01-1960
 applicant|007   column=APPLICANT:full-name, timestamp=1763043927289, value=James Bond
 applicant|007   column=APPLICANT:number, timestamp=1763043927263, value=007

 applicant|666   column=APPLICANT:date-of-birth, timestamp=1763043927357, value=01-01-1999
 applicant|666   column=APPLICANT:full-name, timestamp=1763043927340, value=Very Big Data
 applicant|666   column=APPLICANT:number, timestamp=1763043927318, value=666

 application|007|312|SIM|01 column=APPLICANT:number, timestamp=1763043927422, value=007
 application|007|312|SIM|01 column=APPLICATION:application-number, timestamp=1763043927379, value=01
 application|007|312|SIM|01 column=APPLICATION:education-level, timestamp=1763043927408, value=high
 application|007|312|SIM|01 column=APPLICATION:total-skills, timestamp=1763043927388, value=5
 application|007|312|SIM|01 column=EMPLOYER:ename, timestamp=1763043927434, value=SIM

```
 application|007|312|SIM|01  column=POSITION:position-number, timestamp=1763043927416,
value=312
 application|007|313|UOW|03  column=APPLICANT:number, timestamp=1763043927543,
value=007
 application|007|313|UOW|03  column=APPLICATION:application-number,
timestamp=1763043927506, value=01
 application|007|313|UOW|03  column=APPLICATION:education-level,
timestamp=1763043927531, value=high
 application|007|313|UOW|03  column=APPLICATION:total-skills, timestamp=1763043927511,
value=5
 application|007|313|UOW|03  column=EMPLOYER:ename, timestamp=1763043927562,
value=UOW
 application|007|313|UOW|03  column=POSITION:position-number, timestamp=1763043927538,
value=313
 application|666|312|SIM|02  column=APPLICANT:number, timestamp=1763043927495,
value=666
 application|666|312|SIM|02  column=APPLICATION:application-number,
timestamp=1763043927464, value=02
 application|666|312|SIM|02  column=APPLICATION:education-level,
timestamp=1763043927476, value=low
 application|666|312|SIM|02  column=APPLICATION:total-skills, timestamp=1763043927470,
value=5
 application|666|312|SIM|02  column=EMPLOYER:ename, timestamp=1763043927502,
value=SIM
 application|666|312|SIM|02  column=POSITION:position-number, timestamp=1763043927487,
value=312
 employer|SIM           column=EMPLOYER:ename, timestamp=1763043927133,
value=Singapore Institute of Mana
                  gement
 employer|SIM           column=EMPLOYER:phone, timestamp=1763043927160,
value=1234567890
 employer|UOW            column=EMPLOYER:Phone, timestamp=1763043927194,
value=0987654321
 employer|UOW            column=EMPLOYER:ename, timestamp=1763043927187,
value=University of Wollongong
 position|312           column=POSITION:position-number, timestamp=1763043927199,
value=312
 position|312           column=POSITION:salary, timestamp=1763043927222, value=600000

 position|312           column=POSITION:title, timestamp=1763043927209, value=Big Data
Manager
 position|313           column=POSITION:position-number, timestamp=1763043927228,
value=313
 position|313           column=POSITION:salary, timestamp=1763043927255, value=700000

 position|313           column=POSITION:title, timestamp=1763043927237, value=Very Big Data
Manager
11 row(s)
Took 0.0844 seconds
solution2.hb(main):061:0>
solution2.hb(main):062:0*
solution2.hb(main):062:0>
```

hbase(main):062:0>