

CASO PRÁCTICO HBASE

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- Crear una tabla llamada **animalitos** con la columna familia “**datos_propietario**” “**datos_animal**” dentro de un namespace llamado **practica**

```
dani@dani-VirtualBox:~/hbase-3.0.0-alpha-2/bin$ export JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64
dani@dani-VirtualBox:~/hbase-3.0.0-alpha-2/bin$ ./start-hbase.sh
master running as process 1569. Stop it first.
dani@dani-VirtualBox:~/hbase-3.0.0-alpha-2/bin$ ./hbase shell
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by org.apache.hadoop.hbase.util.UnsafeAvailChecker (file:/home/dani/hbase-3.0.0-alpha-2/lib/hbase-common-3.0.0-alpha-2.jar) of method java.lang.ProcessImpl.start()
WARNING: Please consider reporting this to the maintainers of org.apache.hadoop.hbase.util.UnsafeAvailChecker
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
2022-03-10T18:59:52,311 WARN [main] util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
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/book.html#shell
Version 3.0.0-alpha-2, r314e924e960d0d5c0c5e8ec436c75aaa6190b4c1, Sun Dec 19 12:54:15 UTC 2021
Took 0.0016 seconds
hbase:001:0> create_namespace 'practica'
2022-03-10T19:01:17,563 INFO [RPCClient-NioEventLoopGroup-1-2] client.AsyncHBaseAdmin: Operation: CREATE_NAMESPACE, Namespace: practica completed
Took 1.2283 seconds
hbase:002:0> create 'practica:animalitos', 'datos_propietario', 'datos_animal'
2022-03-10T19:02:38,832 INFO [RPCClient-NioEventLoopGroup-1-2] client.AsyncHBaseAdmin: Operation: CREATE, Table Name: practica:animalitos completed
Created table practica:animalitos
Took 0.7070 seconds
=> Hbase::Table - practica:animalitos
hbase:003:0>
```

- Pregunta 1: listar las tablas del namespace (1 pto)

```
hbase:003:0> list_namespace
NAMESPACE
default
hbase
practica
3 row(s)
Took 0.0713 seconds
hbase:004:0>
```

- Pregunta 2: comprobar que la tabla animalitos existe en ese namespace (1 pto)

```
hbase:005:0> exists 'practica:animalitos'
Table practica:animalitos does exist
Took 0.1150 seconds
=> true
hbase:006:0> list_namespace_tables 'practica'
TABLE
animalitos
1 row(s)
Took 0.0506 seconds
=> ["animalitos"]
hbase:007:0>
```

- Pregunta 3: Insertar datos en la tabla animalitos (2 ptos):

animal	Datos propietario		Datos animal		
	nombre_propietario	ciudad	tipo	nombre	raza
1	maria	madrid	perro	pizca	mestizo
2	cesar	madrid	perro	whity	pastor suizo
3	juan	valencia	raza	sherlock	british shorthair

```

hbase:008:0> put 'practica:animalitos', '1', 'datos_propietario:nombre_propietario', 'maria'
Took 0.1170 seconds
hbase:009:0> put 'practica:animalitos', '1', 'datos_propietario:ciudad', 'madrid'
Took 0.0103 seconds
hbase:010:0> put 'practica:animalitos', '1', 'datos_animal:tipo', 'perro'
Took 0.0146 seconds
hbase:011:0> put 'practica:animalitos', '1', 'datos_animal:nombre', 'pizza'
Took 0.0093 seconds
hbase:012:0> put 'practica:animalitos', '1', 'datos_animal:raza', 'mestizo'
Took 0.0068 seconds
hbase:013:0> put 'practica:animalitos', '2', 'datos_propietario:nombre_propietario', 'cesar'
Took 0.0104 seconds
hbase:014:0> put 'practica:animalitos', '2', 'datos_propietario:ciudad', 'madrid'
Took 0.0079 seconds
hbase:015:0> put 'practica:animalitos', '2', 'datos_animal:tipo', 'perro'
Took 0.0056 seconds
hbase:016:0> put 'practica:animalitos', '2', 'datos_animal:nombre', 'whity'
Took 0.0091 seconds
hbase:017:0> put 'practica:animalitos', '2', 'datos_animal:raza', 'pastor suizo'
Took 0.0156 seconds
hbase:018:0> put 'practica:animalitos', '3', 'datos_propietario:nombre_propietario', 'juan'
Took 0.0063 seconds
hbase:019:0> put 'practica:animalitos', '3', 'datos_propietario:ciudad', 'valencia'
Took 0.0131 seconds
hbase:020:0> put 'practica:animalitos', '3', 'datos_animal:tipo', 'raza'
Took 0.0038 seconds
hbase:021:0> put 'practica:animalitos', '3', 'datos_animal:nombre', 'sherlock'
Took 0.0060 seconds
hbase:022:0> put 'practica:animalitos', '3', 'datos_animal:raza', 'british shorthair'
Took 0.0104 seconds
hbase:023:0>

```

- Pregunta 4: contar el número de registros de la tabla (1 pto)

```

hbase:023:0> count 'practica:animalitos'
3 row(s)
Took 0.0738 seconds
=> 3
hbase:024:0>

```

La tabla tiene 3 filas (registros)

- Pregunta 5:
 - Mostrar los datos del animal id = 2 (1 pto)

```

hbase:024:0> get 'practica:animalitos', '2', 'datos_animal'
COLUMN          CELL
datos_animal:nombr timestamp=2022-03-10T19:35:41.262, value=whity
e
datos_animal:raza  timestamp=2022-03-10T19:36:20.324, value=pastor suizo
datos_animal:tipo  timestamp=2022-03-10T19:35:04.926, value=perro
1 row(s)
Took 0.0781 seconds
hbase:025:0>

```

- Buscar al animal que se llame 'pizca' (1 pto)

```

Took 0.0781 seconds
hbase:025:0> scan 'practica:animalitos', { COLUMNS => 'datos_animal:nombre', LIMIT => 10, FILTER => "ValueFilter( =, 'binaryprefix:pizca' )" }
ROW          COLUMN+CELL
0 row(s)
Took 0.0662 seconds
hbase:026:0>

```

- Pregunta 6: Mostrar el nombre del dueño del animal 2 (1 pto)

```

hbase:026:0> get 'practica:animalitos', '2', 'datos_propietario:nombre_propietario'
COLUMN          CELL
datos_propietario: timestamp=2022-03-10T19:33:47.562, value=cesar
nombre_propietario

```

El nombre del propietario es Cesar.

- Pregunta 7: Eliminar al animalito de la fila 3 (1 pto)

```

hbase:027:0> deleteall 'practica:animalitos', '3'
Took 0.0124 seconds
hbase:028:0> scan 'practica:animalitos'
ROW          COLUMN+CELL
1           column=datos_animal:nombre, timestamp=2022-03-10T19:32:25.262, value=pizza
1           column=datos_animal:raza, timestamp=2022-03-10T19:33:04.180, value=mestizo
1           column=datos_animal:tipo, timestamp=2022-03-10T19:31:25.151, value=perro
1           column=datos_propietario:ciudad, timestamp=2022-03-10T19:30:28.021, value=madrid
1           column=datos_propietario:nombre_propietario, timestamp=2022-03-10T19:29:48.170, value=maria
2           column=datos_animal:nombre, timestamp=2022-03-10T19:35:41.262, value=whity
2           column=datos_animal:raza, timestamp=2022-03-10T19:36:20.324, value=pastor suizo
2           column=datos_animal:tipo, timestamp=2022-03-10T19:35:04.926, value=perro
2           column=datos_propietario:ciudad, timestamp=2022-03-10T19:34:32.054, value=madrid
2           column=datos_propietario:nombre_propietario, timestamp=2022-03-10T19:33:47.562, value=cesar
2 row(s)
Took 0.0913 seconds
hbase:029:0>

```

- Pregunta 8: eliminar la tabla completamente (1 pto)

```

hbase:030:0> disable 'practica:animalitos'
2022-03-10T20:04:58.554 INFO [RPCClient-NioEventLoopGroup-1-2] client.AsyncHBaseAdmin: Operation: DISABLE, Table Name: practica:animalitos completed
Took 0.3925 seconds
hbase:031:0>

```

Si queremos eliminar el namespace realizamos un `drop_namespace 'practica'`