

HBASE - CREATE TABLE

http://www.tutorialspoint.com/hbase/hbase_create_table.htm

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Creating a Table using HBase Shell

You can create a table using the **create** command, here you must specify the table name and the Column Family name. The **syntax** to create a table in HBase shell is shown below.

```
create '<table name>', '<column family>'
```

Example

Given below is a sample schema of a table named emp. It has two column families: "personal data" and "professional data".

```
Row key  personal data  professional data
```

You can create this table in HBase shell as shown below.

```
hbase(main):002:0> create 'emp', 'personal data', 'professional data'
```

And it will give you the following output.

```
0 row(s) in 1.1300 seconds
=> Hbase::Table - emp
```

Verification

You can verify whether the table is created using the **list** command as shown below. Here you can observe the created emp table.

```
hbase(main):002:0> list
TABLE
emp
2 row(s) in 0.0340 seconds
```

Creating a Table Using java API

You can create a table in HBase using the **createTable** method of **HBaseAdmin** class. This class belongs to the **org.apache.hadoop.hbase.client** package. Given below are the steps to create a table in HBase using java API.

Step1: Instantiate HBaseAdmin

This class requires the Configuration object as a parameter, therefore initially instantiate the Configuration class and pass this instance to HBaseAdmin.

```
Configuration conf = HBaseConfiguration.create();
HBaseAdmin admin = new HBaseAdmin(conf);
```

Step2: Create TableDescriptor

HTableDescriptor is a class that belongs to the **org.apache.hadoop.hbase** class. This class is like a container of table names and column families.

```
//creating table descriptor
HTableDescriptor table = new HTableDescriptor(toBytes("Table name"));

//creating column family descriptor
HColumnDescriptor family = new HColumnDescriptor(toBytes("column family"));

//adding column family to HTable
table.addFamily(family);
```

Step 3: Execute through Admin

Using the **createTable** method of **HBaseAdmin** class, you can execute the created table in Admin mode.

```
admin.createTable(table);
```

Given below is the complete program to create a table via admin.

```
import java.io.IOException;

import org.apache.hadoop.hbase.HBaseConfiguration;
import org.apache.hadoop.hbase.HColumnDescriptor;
import org.apache.hadoop.hbase.HTableDescriptor;
import org.apache.hadoop.hbase.client.HBaseAdmin;
import org.apache.hadoop.hbase.TableName;

import org.apache.hadoop.conf.Configuration;

public class CreateTable {

    public static void main(String[] args) throws IOException {

        // Instantiating configuration class
        Configuration con = HBaseConfiguration.create();

        // Instantiating HbaseAdmin class
        HBaseAdmin admin = new HBaseAdmin(con);

        // Instantiating table descriptor class
        HTableDescriptor tableDescriptor = new
        TableDescriptor(TableName.valueOf("emp"));

        // Adding column families to table descriptor
        tableDescriptor.addFamily(new HColumnDescriptor("personal"));
        tableDescriptor.addFamily(new HColumnDescriptor("professional"));

        // Execute the table through admin
        admin.createTable(tableDescriptor);
        System.out.println(" Table created ");

    }
}
```

Compile and execute the above program as shown below.

```
$javac CreateTable.java
$java CreateTable
```

The following should be the output:

```
Table created
Loading [MathJax]/jax/output/HTML-CSS/jax.js
```