Step 1: Download and Extract HBase

- Download **hbase-2.2.5-bin.tar.gz** from the Apache archive https://archive.apache.org/dist/hbase/2.2.5/?utm_source=chatgpt.com.

- Extract the file to the **C drive** and rename the folder as:C:\hbase-2.2.5

- Create the following empty directories for data storage and ZooKeeper:

    C:\hbase-2.2.5\data

    C:\hbase-2.2.5\zookeeper

step-2: Modify HBase Startup Script

Open the HBase startup script file:C:\hbase-2.2.5\bin\hbase.cmd

Look for this specific line:

set java_arguments=%HEAP_SETTINGS% %HBASE_OPTS% -classpath "%CLASSPATH%" %CLASS% %hbase-command-arguments%

Remove %HEAP_SETTINGS% so the line looks exactly like this:

set java_arguments=%HBASE_OPTS% -classpath "%CLASSPATH%" %CLASS% %hbase-command-arguments%

Step 3: Configure hbase-env.cmd

- Open the file:C:\hbase-2.2.5\conf\hbase-env.cmd

- Add the following lines at the end of the file:

    set JAVA_HOME=C:\Java\jdk-1.8

    set HBASE_MANAGES_ZK=true

    set HBASE_CLASSPATH=%HBASE_HOME%\lib\client-facing-thirdparty*

Step 4: Configure hbase-site.xml

- Open the file:C:\hbase-2.2.5\conf\hbase-site.xml

- Replace the <configuration> section with:

<configuration>
 <property>
  <name>hbase.rootdir</name>
  <value>file:///C:/hbase-2.2.5/data</value>
 </property>
 <property>
  <name>hbase.zookeeper.property.dataDir</name>
  <value>C:/hbase-2.2.5/zookeeper</value>

```
</property>

<property>

 <name>hbase.cluster.distributed</name>

 <value>false</value>

</property>

<property>

 <name>hbase.unsafe.stream.capability.enforce</name>

 <value>false</value>

</property>

</configuration>
```

Step 5: Environment Variable Setup

- Set the following system environment variable:

  - **HBASE_HOME** → C:\hbase-2.2.5

- Add the following path to the **PATH** variable:%HBASE_HOME%\bin

Step 6: Start HBase Services

- Open **Command Prompt as Administrator**.

- Navigate to: cd C:\hbase-2.2.5\bin

- Start HBase using:start-hbase.cmd

Step 7: Use HBase Shell

- In the same Command Prompt, open HBase shell:hbase shell

- Create a table:create 'emp', 'personal_data'

- Insert data into the table:

  put 'emp', '1', 'personal_data:name', 'raju'

  put 'emp', '1', 'personal_data:city', 'hyderabad'

- Display the stored data:scan 'emp'

Step 8: Verify Using HBase Web UI

- Open a web browser (Chrome or Edge).

- Go to:http://localhost:16010

- The **HBase Master Status** page will be displayed.

- Under **User Tables**, the emp table will be visible, confirming successful setup.

APACHE **HBASE** | Home | Table Details | Procedures & Locks | HBCK Report | Process Metrics | Local Logs | Log Level | Debug Dump | Metrics Dump | Profiler | HBase Configuration

Backup Masters

ServerName	Port	Start Time

Total:0

Tables

[User Tables] [System Tables] [Snapshots]

1 table(s) in set. [Details]

Namespace	Name	State	Regions								Description
			OPEN	OPENING	CLOSED	CLOSING	OFFLINE	FAILED	SPLIT	Other	
default	emp	ENABLED	1	0	0	0	0	0	0	0	'emp', {NAME => 'personal_data'}

Peers

Peer Id	Cluster Key	Endpoint	State	IsSerial	Bandwidth	ReplicateAll	Namespaces	Exclude Namespaces	Table Cfs	Exclude Table Cfs

Total: 0

Tasks