1 Set Environment Variables

Edit your shell configuration (`~/.zshrc` or `~/.bashrc`) and add:

```
# Hadoop setup
export HADOOP_HOME=/Users/yourname/Downloads/hadoop-3.3.6
export HADOOP_CONF_DIR=$HADOOP_HOME/etc/hadoop
export PATH=$PATH:$HADOOP_HOME/bin:$HADOOP_HOME/sbin

# Hive setup
export HIVE_HOME=/usr/local/hive
export PATH=$PATH:$HIVE_HOME/bin

# Java setup (required by Hadoop/Hive)
export JAVA_HOME=$(/usr/libexec/java_home)

# Optional: Zookeeper if used
export ZOOKEEPER_HOME=/opt/homebrew/Cellar/zookeeper/3.8.1/libexec
export PATH=$PATH:$ZOOKEEPER_HOME/bin
```

Reload:

```
source ~/.zshrc
```

---

2 Configure `hive-site.xml`

1. Go to `$HIVE_HOME/conf/`
2. Copy template:

```
cp hive-default.xml.template hive-site.xml
```

```
/usr/local/hive/conf/hive-site.xml
```

3. Edit `hive-site.xml` to configure key properties. Example minimal setup:

```
<configuration>
```

```xml
    <!-- Hive metastore -->
    <property>
        <name>hive.metastore.warehouse.dir</name>
        <value>/Users/yourname/hive/warehouse</value>
    </property>

    <!-- HiveServer2 authentication (NONE for local testing) -->
    <property>
        <name>hive.server2.authentication</name>
        <value>NONE</value>
    </property>

    <!-- Metastore DB (embedded Derby for local testing) -->
    <property>
        <name>javax.jdo.option.ConnectionURL</name>

<value>jdbc:derby:;databaseName=/Users/yourname/hive/metastore_db;crea
te=true</value>
    </property>
</configuration>
```

For production, replace Derby with MySQL/Postgres.

---

③ Create Hive directories

```
mkdir -p /Users/dhandapanidhandapaniyedappalli/hive/warehouse
mkdir -p /Users/dhandapanidhandapaniyedappalli/hive/metastore_db
```

- These are used for table storage and metastore DB.

---

④ Initialize the Metastore

If using **embedded Derby** (local testing):

```
schematool -initSchema -dbType derby
```

- For MySQL/Postgres: replace `-dbType derby` with `mysql` or `postgres`.

---

5 Start Hive services

- **Hive Metastore** (optional but recommended):

```
hive --service metastore &
```

- **HiveServer2** (for Beeline):

```
hiveserver2 &
```

- **Beeline** (to connect):

```
beeline -u "jdbc:hive2://localhost:10000/default"
```

---

6 Test Hive

```
SHOW DATABASES;
CREATE TABLE test_table (id INT, name STRING);
INSERT INTO test_table VALUES (1, 'Alice');
SELECT * FROM test_table;
```

Optional Configs

- **Logging**: copy or create `log4j.properties` in `$HIVE_HOME/conf` to avoid warnings.
- **Zookeeper**: if using HA HiveServer2.
- **Metastore DB**: use MySQL/Postgres for production.

Step 5: Connect via UI

Option A: Hue (Recommended)

- Install Hue via Homebrew (experimental, may require manual setup):

```
brew install hue
```

- Start Hue:

```
hue runserver
```

- Access UI: http://localhost:8888 → Go to Hive Query Editor

Option B: DBeaver (Third-party GUI)

- Download: https://dbeaver.io/download/
- Add a Hive connection:
  - **Host:** `localhost`
  - **Port:** `10000`
  - **Database:** `default`
  - **Username:** your macOS username (or Hive user)