一. 安装

1. hive安装：brew install hive
2. mysql安装：brew install mysql
3. 启动mysql：bash mysql.server start

二. 元数据库配置

Hive默认用derby作为元数据库。这里我们用mysql来存储元数据，下面作一些初始化配置

1. 登录mysql：mysql -u root
2. 创建数据库：create database metastore;
3. 创建新的用户：create user 'hive'@'localhost' identified by '123456';
4. 修改用户权限：grant select,insert,update,delete,alter,create,index,references on metastore.* to 'hive'@'localhost';
5. 刷新权限：flush privileges;

三. 配置Hive

1. 进入Hive的安装目录,创建hive-site.xml文件
   1). cd /usr/local/Cellar/hive/2.1.1/libexec/conf
   2). cp hive-default.xml.template hive-site.xml
2. 修改hive-site.xml文件，找到以下对应的property并修改其值

```
// 配置jdbc mysql连接配置
<property>
    <name>javax.jdo.option.ConnectionURL</name>
    <value>jdbc:mysql://localhost:3306/metastore?
createDatabaseIfNotExist=true&amp;useUnicode=true&amp;characterEncoding=latin1&amp;useSSL=true</value>
    <description>JDBC connect string for a JDBC metastore</description>
</property>

// 配置jdbc driver
<property>
    <name>javax.jdo.option.ConnectionDriverName</name>
    <value>com.mysql.jdbc.Driver</value>
    <description>Driver class name for a JDBC metastore</description>
</property>

// 连接mysql metastore user
<property>
    <name>javax.jdo.option.ConnectionUserName</name>
    <value>hive</value>
    <description>username to use against metastore database</description>
</property>

// 连接mysql metastore password
<property>
    <name>javax.jdo.option.ConnectionPassword</name>
    <value>123456</value>
    <description>password to use against metastore database</description>
</property>

// HDFS临时文件目录
<property>
    <name>hive.exec.scratchdir</name>
    <value>hdfs://localhost:9000/user/hive/tmp</value>
    <description>HDFS root scratch dir for Hive jobs which gets created with write all (733) permission. For each
connecting user, an HDFS scratch dir: ${hive.exec.scratchdir}/&lt;username&gt; is created, with
${hive.scratch.dir.permission}.</description>
  </property>

// 本地临时文件目录
<property>
   <name>hive.exec.local.scratchdir</name>
   <value>/usr/local/hive/tmp</value>
   <description>Local scratch space for Hive jobs</description>
  </property>

// HDFS数据目录
<property>
    <name>hive.metastore.warehouse.dir</name>
    <value>hdfs://localhost:9000/user/hive/warehouse</value>
    <description>location of default database for the warehouse</description>
</property>

//本地resources目录
<property>
    <name>hive.downloaded.resources.dir</name>
    <value>/usr/local/hive/resources</value>
    <description>Temporary local directory for added resources in the remote file system.</description>
</property>

//本地log目录
<property>
     <name>hive.querylog.location</name>
     <value>/usr/local/hive/log</value>
     <description>Location of Hive run time structured log file</description>
</property>

//本地operationlog目录
<property>
     <name>hive.server2.logging.operation.log.location</name>
     <value>/usr/local/hive/operation_logs</value>
     <description>Top level directory where operation logs are stored if logging functionality is enabled</description>
</property>
```

3. Hadoop core-site添加如下配置，给当前用户授权访问hdfs

```
<property>
    <name>hadoop.proxyuser.zj-db0972.groups</name>
    <value>*</value>
 </property>
 <property>
    <name>hadoop.proxyuser.zj-db0972.hosts</name>
    <value>*</value>
 </property>
```

四. 拷贝mysql-connector到hive

给Hive的lib目录下拷贝一个mysql-connector
1). curl -L 'http://www.mysql.com/get/Downloads/Connector-J/mysql-connector-java-5.1.42.tar.gz/from/http://mysql.he.net/' | tar xz
2). cp mysql-connector-java-5.1.42/mysql-connector-java-5.1.42-bin.jar /usr/local/Cellar/hive/2.1.1/libexec/lib/

五. 初始化元数据库

1. 初始化metastore库：schematool -initSchema -dbType mysql
2. 登录mysql：mysql -u hive -p123456
3. 使用metastore数据库：use metastore
4. 查看表：show tables

六. HDFS创建目录

1. HDFS上建立/tmp和/usr/hive/warehouse目录，并赋予组用户写权限，配置Hive默认的数据文件存放目录
   a. hadoop dfs -mkdir -p hdfs://localhost:9000/user/hive/warehouse
   b. hadoop dfs -mkdir -p hdfs://localhost:9000/user/hive/tmp
   c. hadoop dfs -chmod 777 hdfs://localhost:9000/user/hive/warehouse
   d. hadoop dfs -chmod 777 hdfs://localhost:9000/user/hive/tmp

七. 启动服务

1. 启动metastore服务
   hive —service metastore &
2. 启动hiverserver2服务
   hive --service hiveserver2
3. 可以开始使用jdbc方式连接hivesever进行读写操作

八. 客户端连接代码