系统环境：Ubuntu 16.04 TLS x64

环境配置准备阶段：

1.#添加更新源

命令：sudo vim /etc/apt/sources.list

2.添加如下内容：

#阿里源：

deb http://mirrors.aliyun.com/ubuntu/ trusty main restricted universe multiverse

deb http://mirrors.aliyun.com/ubuntu/ trusty-security main restricted universe multiverse

deb http://mirrors.aliyun.com/ubuntu/ trusty-updates main restricted universe multiverse

deb http://mirrors.aliyun.com/ubuntu/ trusty-proposed main restricted universe multiverse

deb http://mirrors.aliyun.com/ubuntu/ trusty-backports main restricted universe multiverse

deb-src http://mirrors.aliyun.com/ubuntu/ trusty main restricted universe multiverse

deb-src http://mirrors.aliyun.com/ubuntu/ trusty-security main restricted universe multiverse

deb-src http://mirrors.aliyun.com/ubuntu/ trusty-updates main restricted universe multiverse

deb-src http://mirrors.aliyun.com/ubuntu/ trusty-proposed main restricted universe multiverse

deb-src http://mirrors.aliyun.com/ubuntu/ trusty-backports main restricted universe multiverse

3.输入:wq退出

4.# 更新源缓存

sudo apt-get update

5.#安装中文支持环境(install Chinese support)

命令：sudo apt-get install -y language-pack-zh-hant language-pack-zh-hans

export LANG "zh\_CN.UTF-8"

6.#安装去依赖管理包工具(install aptitude)

命令：sudo apt-get install -y aptitude

7.#安装基础工具(install basic tools)

命令：sudo apt-get install -y -f wget vim python

安装开发语言环境：

1.Python环境配置：

(1)#安装pip管理包工具(install pip)

命令：sudo wget https://bootstrap.pypa.io/get-pip.py;python get-pip.py;rm -f get-#pip.py

(2)#安装python库(lxml requests)

命令：pip install --upgrade lxml requests redis

(3)#安装爬虫环境

命令：pip install wheel Scrapy pymongo requests celery -i http://#pypi.douban.com/simple --trusted-host pypi.douban.com

2.安装jdk1.8：

(1)下载好jdk包

(2)命令：tar –xvf jdk1.8xxx. tar.gz

(3)命令：mv -r jdk1.8xx/ /opt/jdk1.8

(4)命令：vim /etc/profile

(5)添加如下内容：

export JAVA\_HOME=/opt/jdk1.8

export PATH=$PATH:$JAVA\_HOME/bin

安装集成管理环境：

1.安装apache-maven

(1)下载好maven包

(2)命令：tar –xvf apache-maven-xxxx.tar.gz

(3)命令：mv –r apache-maven-xxxx/ /opt/apache-maven

(4)命令：vim /etc/profile

(5)添加如下内容：

export MAVEN\_HOME=/opt/apache-maven

export PATH=$PATH:$MAVEN\_HOME/bin

export MAVEN\_OPTS="-Xmx2g -XX:MaxPermSize=512M -XX:ReservedCodeCacheSize=512m"

安装集成发布环境：

1.Docker配置安装：

(1)命令：sudo apt-get install docker.io

(2)命令：service docker.io status

(3)命令：service docker.io start

2.Docker-compose安装：

(1)命令：

curl -L https://get.daocloud.io/docker/compose/releases/download/1.13.0/docker-compose-`uname -s`-`uname -m` > /usr/local/bin/docker-compose

(2)命令：chmod +x /usr/local/bin/docker-compose

安装分布式数据库：

1.安装redis数据库

(1)命令：sudo apt-get update

(2)命令：sudo apt-get install redis-server

安装分布式计算分析环境：

1.安装hadoop和yarn

(1)下载hadoop

命令：wget <http://mirrors.hust.edu.cn/apache/hadoop/common/hadoop-2.7.3/hadoop-2.7.3.tar.gz>

(2)命令：tar –xvf hadoop-2.7.3.tar.gz

(3)命令：mv –r hadoop-2.7.3/ /opt/

(4)配置hadoop

命令：vim /etc/profile

添加如下内容：

export HADOOP\_HOME="/opt/hadoop-2.7.3"

export HADOOP\_COMMON\_LIB\_NATIVE\_DIR=$HADOOP\_HOME/lib/native

export HADOOP\_OPTS="-Djava.library.path=$HADOOP\_HOME/lib:$HADOOP\_COMMON\_LIB\_NATIVE\_DIR"

export HADOOP\_CONF\_DIR=$HADOOP\_HOME/etc/hadoop

export YARN\_CONF\_DIR=$HADOOP\_HOME/etc/hadoop

export PATH=$PATH: $HADOOP\_HOME/bin:$HADOOP\_HOME/sbin

(5)命令：vim /opt/hadoop-2.7.3/etc/hadoop/core-site.xml

在configuration节点下添加:

<property>

<name>fs.defaultFS</name>

<value>hdfs://master:9000</value>

</property>

<property>

<name>io.file.buffer.size</name>

<value>131072</value>

</property>

<property>

<name>hadoop.tmp.dir</name>

<value>/opt/hadoop-2.7.3/tmp</value>

</property>

(6)命令：vim /opt/hadoop-2.7.3/etc/hadoop/hdfs-site.xml

在configuration节点下添加:

<property>

<name>dfs.namenode.secondary.http-address</name>

<value>master:50090</value>

</property>

<property>

<name>dfs.replication</name>

<value>2</value>

</property>

<property>

<name>dfs.namenode.name.dir</name>

<value>file:/opt/hadoop-2.7.3/hdfs/name</value>

</property>

<property>

<name>dfs.datanode.data.dir</name>

<value>file:/opt/hadoop-2.7.3/hdfs/data</value>

</property>

(7)命令：cp /opt/hadoop-2.7.3/etc/hadoop/mapred-site.xml.template /opt/hadoop-2.7.3/etc/hadoop/mapred-site.xml

(8)命令：vim /opt/hadoop-2.7.3/etc/hadoop/mapred-site.xml

在configuration节点下添加：

<property>

<name>mapreduce.framework.name</name>

<value>yarn</value>

</property>

<property>

<name>mapreduce.jobhistory.address</name>

<value>master:10020</value>

</property>

<property>

<name>mapreduce.jobhistory.address</name>

<value>master:19888</value>

</property>

(9)命令：vim /opt/hadoop-2.7.3/etc/hadoop/yarn-site.xml

在configuration节点下添加：

<property>

<name>yarn.nodemanager.aux-services</name>

<value>mapreduce\_shuffle</value>

</property>

<property>

<name>yarn.resourcemanager.address</name>

<value>master:8032</value>

</property>

<property>

<name>yarn.resourcemanager.scheduler.address</name>

<value>master:8030</value>

</property>

<property>

<name>yarn.resourcemanager.resource-tracker.address</name>

<value>master:8031</value>

</property>

<property>

<name>yarn.resourcemanager.admin.address</name>

<value>master:8033</value>

</property>

<property>

<name>yarn.resourcemanager.webapp.address</name>

<value>master:8088</value>

</property>

(10)命令：vim /etc/hosts

在源文件的基础上加上:

127.0.0.1 master

(11)配置ssh互通(当前用户为root)

命令：ssh-keygen –t rsa –P ‘’#一路回车直到生成公钥

命令：cat /root/.ssh/id\_rsa.pub >> /root/.ssh/authorized\_keys #master主机

(12)命令：hadoop namenode –format #格式化节点

2.安装spark

(1)下载spark

命令：wget <http://d3kbcqa49mib13.cloudfront.net/spark-2.1.0-bin-hadoop2.7.tgz>

(2)命令：tar –xvf spark-2.1.0-bin-hadoop2.7.tgz

(3)命令：mv –r spark-2.1.0-bin-hadoop2.7/ /opt/

(4)命令：vim /etc/profile

添加如下内容：

export SPARK\_HOME=/opt/spark-2.1.0-bin-hadoop2.7/

export PATH="$SPARK\_HOME/bin:$PATH"

(5)命令:cp /opt/spark-2.1.0-bin-hadoop2.7/conf/spark-env.sh.template /opt/spark-2.1.0-bin-hadoop2.7/conf/spark-env.sh

(6)vim /opt/spark-2.1.0-bin-hadoop2.7/conf/spark-env.sh

在源文件基础上添加：

export JAVA\_HOME=/usr/java/jdk1.8.0\_112/

export SPARK\_MASTER\_IP=master

export SPARK\_WORKER\_MEMORY=1g

export HADOOP\_CONF\_DIR=/opt/hadoop-2.7.3/etc/hadoop

(7)命令：cp /opt/spark-2.1.0-bin-hadoop2.7/conf/slaves.template /opt/spark-2.1.0-bin-hadoop2.7/conf/slaves

(8)命令：vim /opt/spark-2.1.0-bin-hadoop2.7/conf/slaves

添加如下内容：

master

显示层：Spring框架搭建：