Cloud Computing

Unit :: Project 4

MapReduce	Input Text Predictor: NGram Generation	Input Text Predictor: Language Model and User I...

Search this course

User Interface

171

Once the language model has been generated and loaded on to HBase, we can connect it to the Web interface to test out the language auto-completion. Please follow the steps below:

1. Install the Apache web server with PHP and cURL libraries on your master instance:

   ```
   sudo apt-get install apache2 php5 php5-cli php5-curl
   ```

2. The AMI used by EMR is based on Debian/Squeeze, which installs Hardened PHP (Suhosin) by default. In order for the web app to work, please edit the **/etc/php5/apache2/conf.d/suhosin.ini** and **/etc/php5/cli/conf.d/suhosin.ini** files to include the following line:

   ```
   suhosin.executor.include.whitelist = phar
   ```

   This allows PHP scripts to include PHP archive (phar) files, which is needed by the following webapp:

3. Restart Apache:

   ```
   sudo service apache2 restart
   ```

4. Install the demo PHP code for this project:

   ```
   cd ~; wget https://s3.amazonaws.com/15-319-s13/proj4/proj4_web.tgz ; cd /var/www
   ; sudo tar xzf ~/proj4_web.tgz
   ```

5. Verify the Apache server is running by visiting the IP address of your server instance through a browser (For eg. **http://ec2-111-222-333-444.compute-1.amazonaws.com/proj4_web/info.php**)

6. You should be able to see information about PHP displaying correctly. If the **.php** file is downloaded instead of displaying in the browser, try restarting apache2 again, or look at **/var/log/apache2/error.log**

7. HBase includes a REST interface which is used by the Demo PHP application. You will have to start this interface manually:

   ```
   hbase-daemon.sh start rest
   ```

8. Modify the PHP file provided with the details of your HBase schema (tablename and column family) in order to read data from your HBase table. The code assumes a schema with the phrase as a row key and all words that can appear after the phrase to be column names. Modify the PHP code to match your schema if it is different.

Note: Once you have completed all the tasks and verified the output, please complete the checkpoint quiz below. Remember to keep your instances alive after the deadline for the assessment. Your instances should be terminated as soon as you receive instructions from your TA after grading has been completed. As mentioned previously, for this checkpoint, assign the tag with Key: **Project** and Value: **4.3** for all resources.

checkpoint

Language Model Generation