**Common Neurons Decision Tree FAQ**

**Introduction**

The Code generates Decision Tree rules for the given set of columns and Health Parameters that have a negative Logistic Regression Score in the Scores table.

**File Path and Names**

**Daily Run**

**Path** - /tmp/heuristic\_machine/release4/common\_neurons\_dt\_rules/

**Jar File** - VCM\_HeuristicMachine\_DT\_Rules-1.3.jar

This JAR file contains the coding logic behind Common Neurons DT

**Shell Script** - common\_neurons\_spark-submit.sh

This script executes the JAR after we pass the required parameters.

**Parameters** - dt\_properties.zip

The required parameters that dictate the program execution are set here.

**Parameters Zip** - dtRules\_Upper.properties, dtRules\_Middle.properties, dtRules\_Lower.properties

The parameters are compressed into a zip file.

The required parameters that dictate the program execution are set here.

**Hive DDL -** common\_neurons\_dt\_DDL.hql

Hive script for preparing the necessary Output table which is used in the program.

**Execution Procedure**

In the production environment, the job execution is scheduled via Oozie jobs. The below Oozie command will run the Common Neurons DT Code.

**oozie job --oozie http://bkcttplp.com:11000/oozie/ --config /tmp/heuristic\_machine/release3/common\_neurons\_dt\_rules/common\_neurons\_workflow.properties –run**

The following explains the properties given for the Oozie script and then the properties given to the Common Neurons DT Code.

**Oozie Parameters**

The parameters that are set in the oozie properties file.

|  |  |  |
| --- | --- | --- |
| **Parameter Key** | **Parameter Value** | **Description** |
| oozie.wf.application.path | /apps/users/scripts/oozie/heuristic\_machine\_vcm/xmls/common\_neurons\_workflow.xml | Oozie WorkFlow XML |
| oozie.coord.application.path | /apps/users/scripts/oozie/heuristic\_machine\_vcm/xmls/common\_neurons\_workflow\_cord.xml | Oozie Coordinator XML |
| user | users | HM Functional ID |
| email\_to | textanalytics-support@one.gmail.com | Group Email ID |

**Code Parameters**

|  |  |  |
| --- | --- | --- |
| **Parameter Key** | **Parameter Value** | **Description** |
| database | heuristic\_machine\_prod | Prod DB |
| commonNeuronsTable | hm\_commonneuron\_daily | Common Neurons Table |
| upperFunnelTable | hm\_pivot\_upper\_funnel\_daily | Upper Funnel Pivot Table |
| middleFunnelTable | hm\_pivot\_middle\_funnel\_daily | Middle Funnel Pivot Table |
| lowerFunnelTable | hm\_pivot\_lower\_funnel\_daily | Lower Funnel Pivot Table |
| scoresTable | hm\_health\_parm\_scores\_daily | LR Scores Table |
| outputTable | common\_neurons\_dt\_rules | Output Table |
| colUpdateList | campaign | List of Columns to take top N number of records |
| topN | 20 | Col update List’s Top N |
| selectColumnsUpper selectColumnsMiddle selectColumnsLower | device\_type,day\_of\_week\_for\_breakouts,daily\_visitor,hourly\_visitor,timeofday,search\_engine,rv\_session,times\_cart\_open\_middle,times\_cart\_close\_middle,times\_cart\_close\_lower,times\_cart\_open\_lower,campaign | Columns passed from CN table for generating DT rules |
| regexCol |  | Col to perform regex pattern if any |
| startDate | 1 | Start Date ( current date minus given number) |
| endDate | 1 | End Date ( current date minus given number) |
| deviceList | desktop\_session | List of devices to use |
| upperResponseColumn | lqs | Response Column for Upper Funnel |
| middleResponseColumn | checkout | Response Column for Middle Funnel |
| lowerResponseColumn | place\_order | Response Column for Lower Funnel |
| funnels | U,M,L | Funnels for which to run the code |
| dtMinInputCount | 50 | Min count of input for DT code to run for every health parameter |
| responseMaxPercent | 90 | Max percent of response column values. |

**History Run**

* Change the startDate and endDate parameters in the three properties file. dtRules\_Upper.properties, dtRules\_Middle.properties, dtRules\_Lower.properties
  + zip dt\_properties.zip dtRules\*.properties
* Move the properties zip to HDFS
* Run the oozie command