ITEM SCORING ENGINE INSTALLATION

Python 2.7, Sympy 0.7.1 and Bottle 0.12.8 and CherryPy 3.6.0 are prerequisites for running Scoring engine

* Python installation
  + Install python 2.7. ***make sure Operating system(not user) uses python 2.7 as default python installation***
  + There may be multiple python installations. We can find this by “which python” command
* Install pip this is useful for installing remaining software
  + yum install -y python-pip
  + confirm it by using following command which pip.it should show “usr/bin/pip”
* install cherrypy
  + Run the command “pip install "cherrypy>=3.8.0,<9.0.0"”
  + Test installation “python -m cherrypy.tutorial.tut01\_helloworld”
  + Output should be
    - [15/Feb/2014:21:51:22] ENGINE Listening for SIGHUP.
    - [15/Feb/2014:21:51:22] ENGINE Listening for SIGTERM.
    - [15/Feb/2014:21:51:22] ENGINE Listening for SIGUSR1.
    - [15/Feb/2014:21:51:22] ENGINE Bus STARTING
    - [15/Feb/2014:21:51:22] ENGINE Started monitor thread 'Autoreloader'.
    - [15/Feb/2014:21:51:22] ENGINE Started monitor thread '\_TimeoutMonitor'.
    - [15/Feb/2014:21:51:22] ENGINE Serving on http://127.0.0.1:8080
    - [15/Feb/2014:21:51:23] ENGINE Bus STARTED
* Install bottle
  + Run the command “pip install bottle”
  + Test the installation
    - $ python
    - >>> from bottle import route, run
    - >>> @route('/hello')
    - >>> def hello():
    - >>> return "Hello World!"
    - >>> run(host='localhost', port=8088, debug=True)
  + visit http://localhost:8088/hello and you will see “Hello World!” in your browser
* install sympy
  + Run the command “pip install sympy”
  + Test sympy
    - $ python
    - >>> from sympy import \*
    - >>> x = symbols('x')
    - >>> a = Integral(cos(x)\*exp(x), x)
    - >>> Eq(a, a.doit())
    - Should display “Eq(Integral(exp(x)\*cos(x), x), exp(x)\*sin(x)/2 + exp(x)\*cos(x)/2)”
* Equation Scoring Service Setup
  + The Equation (EQ) Scorer is provided as a web service. In order to run this, perform the following steps:
  + Download sympy scripts from the following location <https://github.com/SmarterApp/TDS_ItemScoring/tree/master/sympy-scripts>
  + Copy the contents of the unzipped site-packages.zip in the the /Python2.7/Lib/site-packages.folder
  + Create a directory for the EQ service such as eq/scripts/
  + Create a directory for the EQ service logs such as eq/logs/
  + Install sympy-scripts/EqScoringWebService.py into that user's ~itemscoringservice/eq/scripts.
  + Start the service as the itemscoringservice user using the following command: /usr/bin/python2.7/home/itemscoringservice/eq/scripts/EqScoringWebService.py 2> /dev/null > /home/itemscoringservice/eq/logs/EqScoringWebService.py.log &
  + This will ensure the equation scorer runs in the background and saves its log output.
  + It's recommended to make sure only a single instance of the EQ scorer is running at any one time, and that the logs directory is rotated and pruned regularly.
* TESTING
  + Once the two apps up and running (item viewer service and item scoring engine we can test the item of type equation iris/Pages/item.xhtml?type=Item&bankId=187&id=3212
  + Once the item is displayed enter 5 and click on score button
  + If EqScoring web service running It will display the following message “**Congrats!** Your answer is correct. Maximum Number Of Points:1”
  + If EqScoring webservice is not running it will display following message “**Sorry!** Your answer is incorrect.”