**DEPLOYING A GENERIC DOCKER INSTANCE TO TEST TOOLSHED DOWNLOAD**

1. Clean up and remove any existing galaxy instances.
2. Run generic Galaxy version: **docker run --name="NG-CHM" -d -p 8888:80 -p 7021:21 -e "**[**GALAXY\_CONFIG\_ADMIN\_USERS=mark@mark.com**](mailto:GALAXY_CONFIG_ADMIN_USERS=mark@mark.com)**" bgruening/galaxy-stable**
3. Register and login as: [**mark@mark.com**](mailto:mark@mark.com) (this will make you administrator)
4. Go to **Admin** (on top menu bar)
5. Select **Install New Tools** (on left side menu bar)
6. Click little arrow on **Galaxy Main Toolshed** button and pick **search for valid tools** from dropdown
7. Enter *NG-CHM* into **Tool Name** and press **Search Repositories** button
8. You will be presented with a list of std and advanced versions.
9. Find the one (or both) that you want, click the check box next to each, and press **Install To Galaxy** button.
10. Enter a name to install the tools under (e.g. *NG-CHM Tools*) and press **Install** button.
11. If you go to Analyze Data (on the top menu bar) you should now see a subsection in the left-side menu called **NG-CHM Tools**. HOWEVER you are not done yet because the visualizations must still be installed.
12. Bash into container: **docker exec -it NG-CHM /bin/bash**
13. Copy the ng-chm plugin: **mv /galaxy-central/../shed\_tools/toolshed.g2.bx.psu.edu/repos/md-anderson-bioinformatics/heat\_map\_creation/\*/heat\_map\_creation/mda\_heatmap\_viz.zip  /galaxy-central/config/plugins/visualizations/**
14. Here we need to do a few things to configure the environment:
    1. Run command: **apt-get update** (this will get all updates for zip commands and java)
    2. Run command: **apt-get install -y r-base**
    3. Run command: **apt-get install -y software-properties-common python-software-properties**
    4. Run command: **add-apt-repository -y ppa:openjdk-r/ppa**
    5. Run command: **apt-get install -y openjdk-8-jdk**
    6. Run command: **update-alternatives --set java /usr/lib/jvm/java-8-openjdk-amd64/jre/bin/java**
15. Change directory to: **cd /galaxy-central/config/plugins/visualizations/**
16. Run command: **apt-get update**
17. Run command: **sudo apt-get install unzip**
18. Unzip the visualization: **unzip mda\_heatmap\_viz.zip** (note if unzip command is not found something went wrong installing unzip)
19. **Exit** the shell
20. Stop the container: **docker stop NG-CHM**
21. Start the container: **docker start NG-CHM** (do not use the RUN command again or you will have to start all over)