QS3 2017: Getting started with the IBM Quantum Experience

All users: start exploring the QX website

- Get an account if you don't have one already:
  - https://quantumexperience.ng.bluemix.net/qx/signup
- Study the User Guide, which aims to provide a complete, self-contained introduction
- Try out the Composer and run some experiments

"Serious" users: get extended usability (including eventual access to the 16-qubit device) by using the Quantum Information Software Kit (QISKit) API

Two methods: **A)** run python on your laptop; **B)** run python on a cloud-hosted site

- **Method A** (good if running Linux and/or have experience with Python and Git):
  - Install Anaconda: https://www.continuum.io/downloads
  - (Optional but recommended) Install Git: https://git-scm.com/download/
  - Get the QISKit SDK:
    - If you got Git, open a command prompt and navigate to the folder where you'd like to install QISKit, then run the following command: *git clone http://github.com/IBM/qiskit-sdk-py*
    - If you didn't get Git, visit http://github.com/IBM/qiskit-sdk-py in a browser, download the repository, and unzip to the desired folder
  - Perform setup:
    - Linux users: run *make env* from inside the qiskit-sdk-py folder
    - Windows users: run these commands from the qiskit-sdk-py folder:
      - *conda create -y -n QISKitenv python=3 pip*
      - *activate QISKitenv*
      - *pip install -r requires.txt*
    - Copy qiskit-sdk-py/tutorial/Qconfig.py.default to qiskit-sdk-py/Qconfig.py, then uncomment the APItoken line in the copied file and put your token (obtained from the Quantum Experience website under "My Account" → "Personal Access Token") in the space between the quotes
  - Start running:
    - Linux users: navigate to the qiskit-sdk-py folder and type *make run*
    - Windows users: run these commands from the qiskit-sdk-py folder:
      - *activate QISKitenv*
      - *cd tutorial*
      - *jupyter notebook index.ipynb*

- **Method B** (good if running Windows, want ease of access from multiple computers, and/or new to Python and Git):
  - Create an account at http://datascientistworkbench.com
  - Launch the Jupyter Notebook interface (may take up to ~10 mins!)
  - Paste http://ibm.biz/QX_DSWB in the box at the upper right, locate QX_DSWB under "My Data," rename it to QX_DSWB.ipynb (click the ">" to the left of the name), locate QX_DSWB.ipynb under "My Notebooks," click to launch the notebook, and follow the directions in the notebook.
  - To run the code in each cell, click inside it and type *Shift+Enter*