**Prep-work for IBM Quantum Workshop**

**Foreword**: we are happy to meet you at the IBM Quantum Computing Workshop, majority of the content will be focusing on Hands-on practice of the IBM platform (programming with QISKit, and execute on real quantum computers). For your best benefit during the workshop we suggest some prep-work. **Most important one is to install qiskit library for python** (use Python 3), link to the installation procedure is described below. Other subjects will be detailed during the workshop, it might be useful that you review those subjects to get familiar (or remind yourself). Thank you.

## SETUP


- **Login to IBM Quantum Experience**: [setup a free account](#)
- **Locate your API key (top right corner, My Account)** it will be needed during the workshop

**Qiskit in local environment**
1. **Install Qiskit**
2. **Follow the instructions to access the IBM Quantum services from Qiskit**, this is your API Token.

```
944ad097bf39744a91f6be8003a009... 
```

- **Hello Quantum World**
- **Using Circuit Composer →**
- **Using Qiskit →**
- **IBM Quantum Experience User Guide**

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**Q Running Your First Quantum Application**

Learn to use the features of the IBM Quantum Experience by building your first "Hello Quantum World" application.

**Q Learn Quantum Computing with IBM Quantum**

Learn the basics of quantum computing and how to implement quantum algorithms in the IBM Quantum Experience.

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**Install qiskit on your laptop**: [https://qiskit.org/documentation/install.html](https://qiskit.org/documentation/install.html)

Go to qiskit.org: top-right corner hit ‘API Documentation’ select ‘Installing Qiskit’ on the left menu, follow instructions.

- **Use Python 3**
- **Open a Jupyter Notebook from the Anaconda environment where qiskit is installed**: `import qiskit` should have no errors

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## PREP MATERIAL

**Python**

Need a Python refresh or a crash course? Among many resources you may use Derek Banas Youtube channel:

[https://youtu.be/N4mEzFDjqtA](https://youtu.be/N4mEzFDjqtA)


**Youtube Qiskit channel**: [https://www.youtube.com/Qiskit](https://www.youtube.com/Qiskit)

**Review « Quantum Fundamentals » and « Coding with Qiskit » playlists**

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**Quantum Computing Library** (basic to advanced = left to right)

**Quantum Information Science Kit**

**Mastering Quantum Computing with IBM QX**

**Dancing with Qubits**

**Quantum Computing Explained**

**Quantum Computer Science (An Introduction)**

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