Jupyter Notebook Extensions For Teaching and Learning

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Jupyter

Introduction

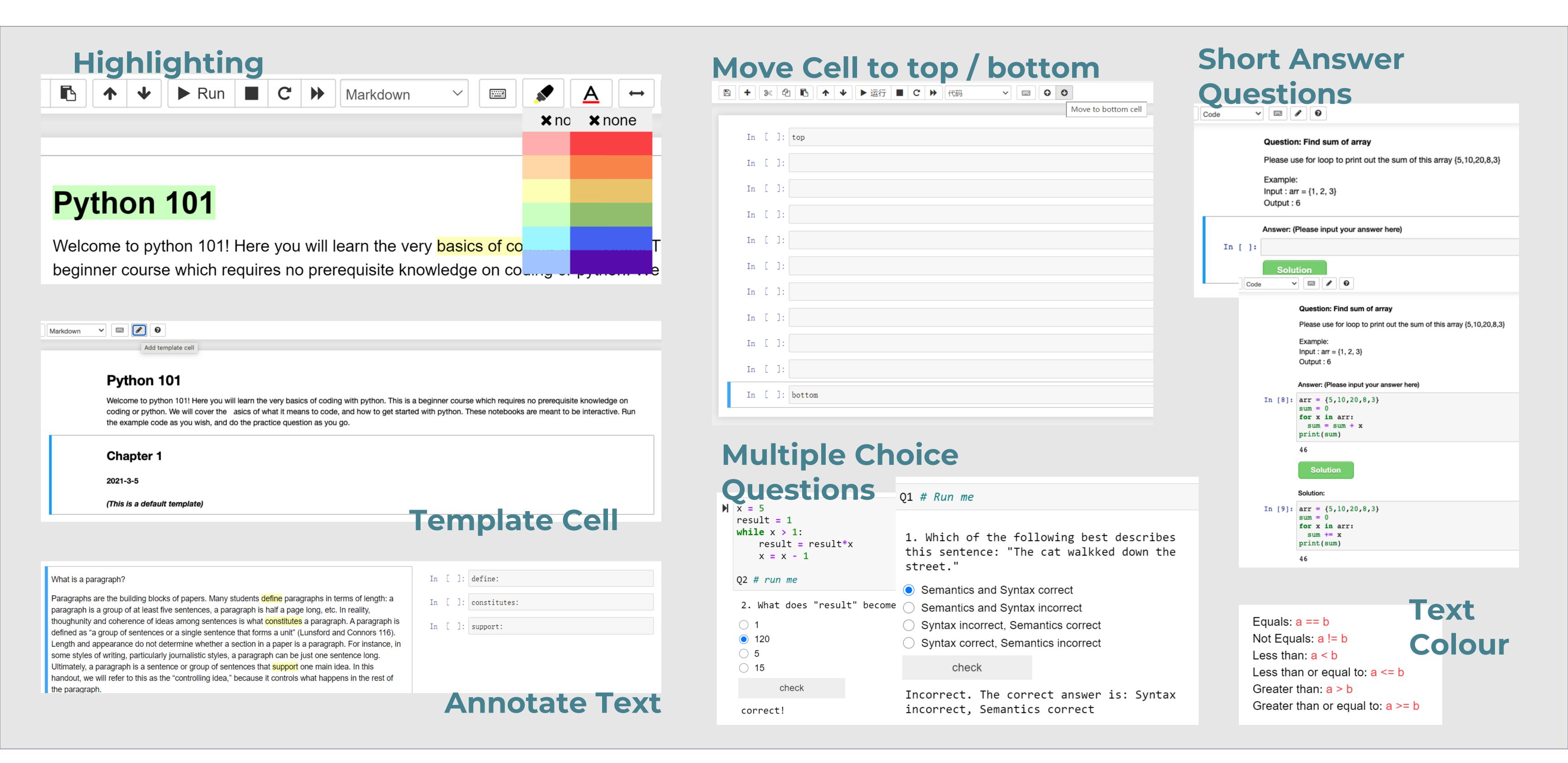
- Jupyter Notebook is an open-source web-based application
- Users can code and visualize their data in an online learning environment
- It has great potential for teaching and learning
- The framework of Jupyter Notebook still requires some improvements

Purpose

The purpose of our project is to improve some missing functionalities of Jupyter Notebook that will make teaching and learning more effective.

Method

- Limited documentation on Jupyter Notebook extensions
- Researched Jupyter's Architecture for a deeper understanding
- Frontend: HTML5 / CSS
- Backend: Javascript
- Used Jupyter's open source code, and previous extensions to learn how to add our own functionality



Conclusion

We developed six extensions for our project. Each extension has different functionality designed to meet the needs of different users. With the help of our extensions, students can have better experience with note-taking and interactive learning in Jupyter Notebook and instructors will have additional options when creating the content in Jupyter Notebook.