# Difference Between Jupyter Notebooks and Python scripts

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## Introduction

Jupyter Notebooks and Python scripts are two popular tools used in data science and programming. While both tools have their advantages, there are key differences between them. In this blog post, we will compare and contrast Jupyter Notebooks and Python scripts to help you decide which tool to use for your projects.

## Advantages of Jupyter Notebooks

Jupyter Notebooks are interactive web-based tools that allow you to combine code, text, and visualizations in a single document. One of the biggest advantages of Jupyter Notebooks is that they are great for data exploration and visualization. With Jupyter Notebooks, you can easily visualize your data and explore different data analysis techniques. Jupyter Notebooks are also great for prototyping and sharing your work with others. They allow you to create interactive documents that others can run and modify.

## Advantages of Python Scripts

Python scripts, on the other hand, are standalone programs that are executed from the command line. One of the biggest advantages of Python scripts is that they are great for automation and reproducibility. Python scripts can be used to automate repetitive tasks, such as data cleaning and processing. They can also be used to create reproducible analyses that can be run on different machines with the same results. Python scripts are also great for version control, as they can be easily tracked and managed using tools like Git.

## Key Differences between Jupyter Notebooks and Python Scripts

While both Jupyter Notebooks and Python scripts have their advantages, there are key differences between them. One of the biggest differences is that Jupyter Notebooks are interactive, while Python scripts are not. Jupyter Notebooks allow you to run code cells one at a time, which is great for exploring data and experimenting with different techniques. Python scripts, on the other hand, must be executed in their entirety, which can be time-consuming for larger scripts.

Another key difference between Jupyter Notebooks and Python scripts is that Jupyter Notebooks are great for data visualization and exploration, while Python scripts are great for automation and reproducibility. If you are working with large datasets and need to automate repetitive tasks, a Python script may be the better choice. If you are exploring data and experimenting with different techniques, a Jupyter Notebook may be the better choice.

Finally, Jupyter Notebooks and Python scripts have different workflows. Jupyter Notebooks are great for prototyping and sharing your work with others, while Python scripts are great for production-level code. If you are working on a project with a team, a Jupyter Notebook may be a better choice, as it allows everyone to see your work and make changes. If you are working on a project that requires production-level code, a Python script may be the better choice.

## Conclusion

In conclusion, Jupyter Notebooks and Python scripts are two popular tools used in data science and programming. While both tools have their advantages, there are key differences between them. Jupyter Notebooks are great for data exploration and visualization, while Python scripts are great for automation and reproducibility. Which tool you choose will depend on your specific needs and the requirements of your project.

| | Jupyter Notebooks | Python Scripts |
|---|---|---|
| Interactivity | Interactive | Non-interactive |
| Data Exploration | Great for data visualization and exploration | Not ideal for data exploration |
| Automation | Not ideal for automation | Ideal for automation |
| Reproducibility | Not ideal for reproducibility | Ideal for reproducibility |
| Version Control | Can be difficult to manage | Easy to manage |
| Workflow | Great for prototyping and sharing | Great for production-level code |
| Extension | .ipynb | .py |



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| claración | `mi_lista = [1, 2, 3]` | `mi_tupla = (1, 2, 3)` | `mi_dict = {'clave': 'valor'}` | `mi_set = {1 2, 3}` |
| nbolo | `[ ]` | `( )` | `{ : }` | `{ }` |
| tabilidad | Mutable | Inmutable | Mutable | Mutable |
| todos munes | `append()`, `extend()`, `remove()` | Ninguno | `keys()`, `values()`, `items()` | `add()`, `remove()`, `union()` |
| den de mentos | Ordenadas | Ordenadas | No hay orden específico | No hay orden específico |

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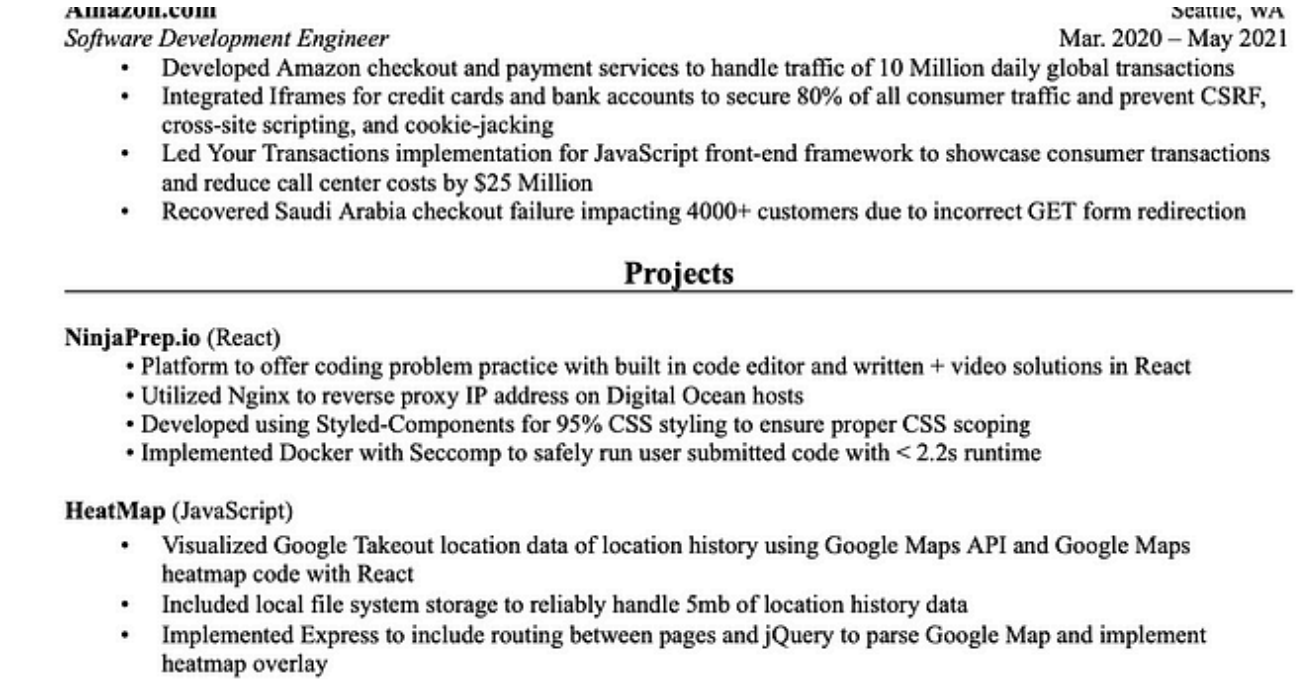

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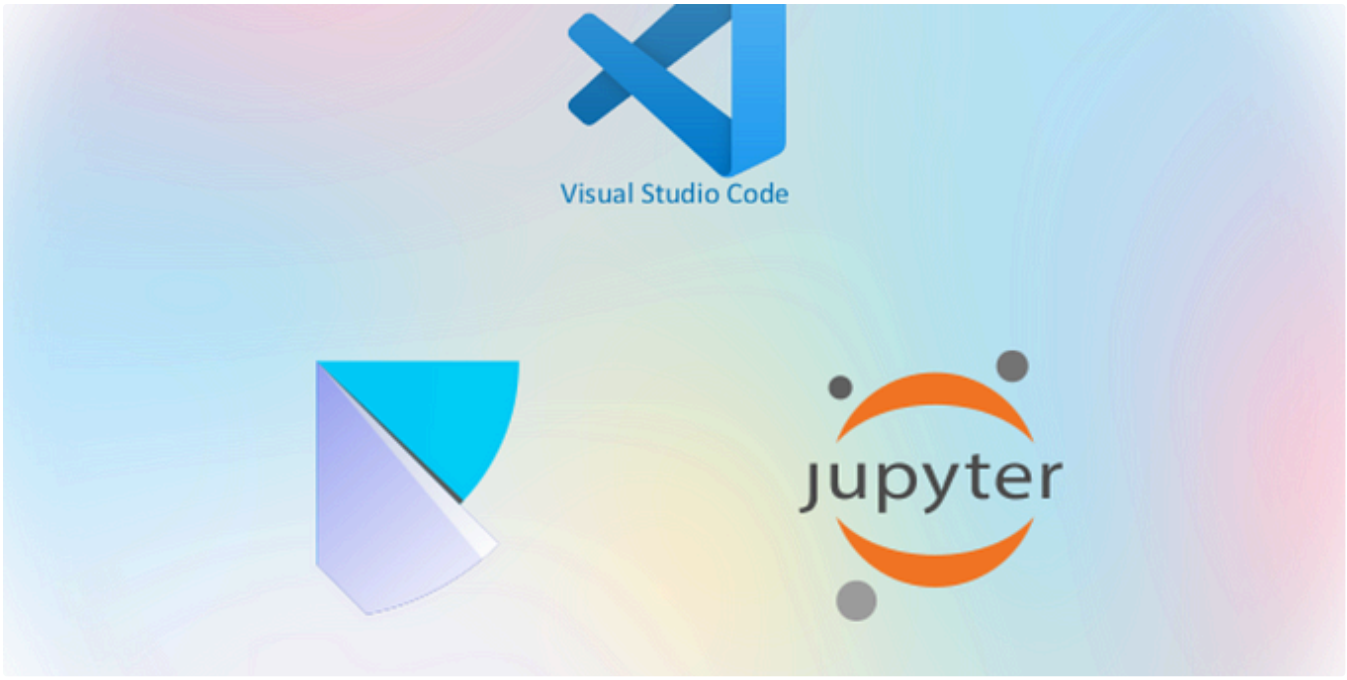


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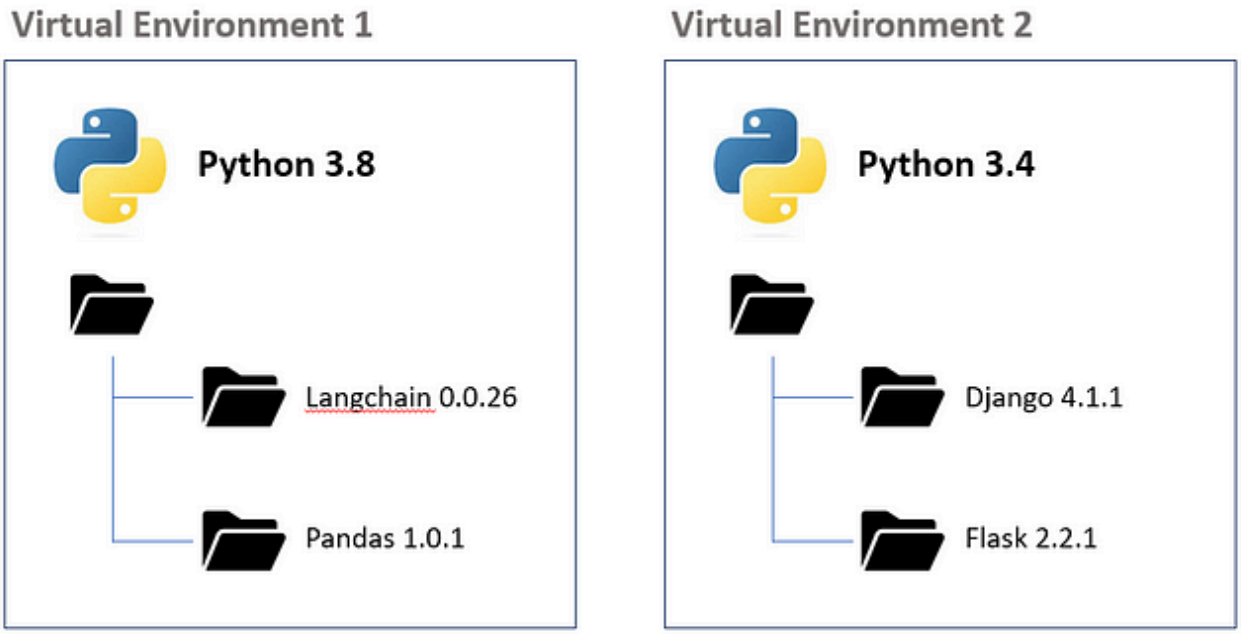


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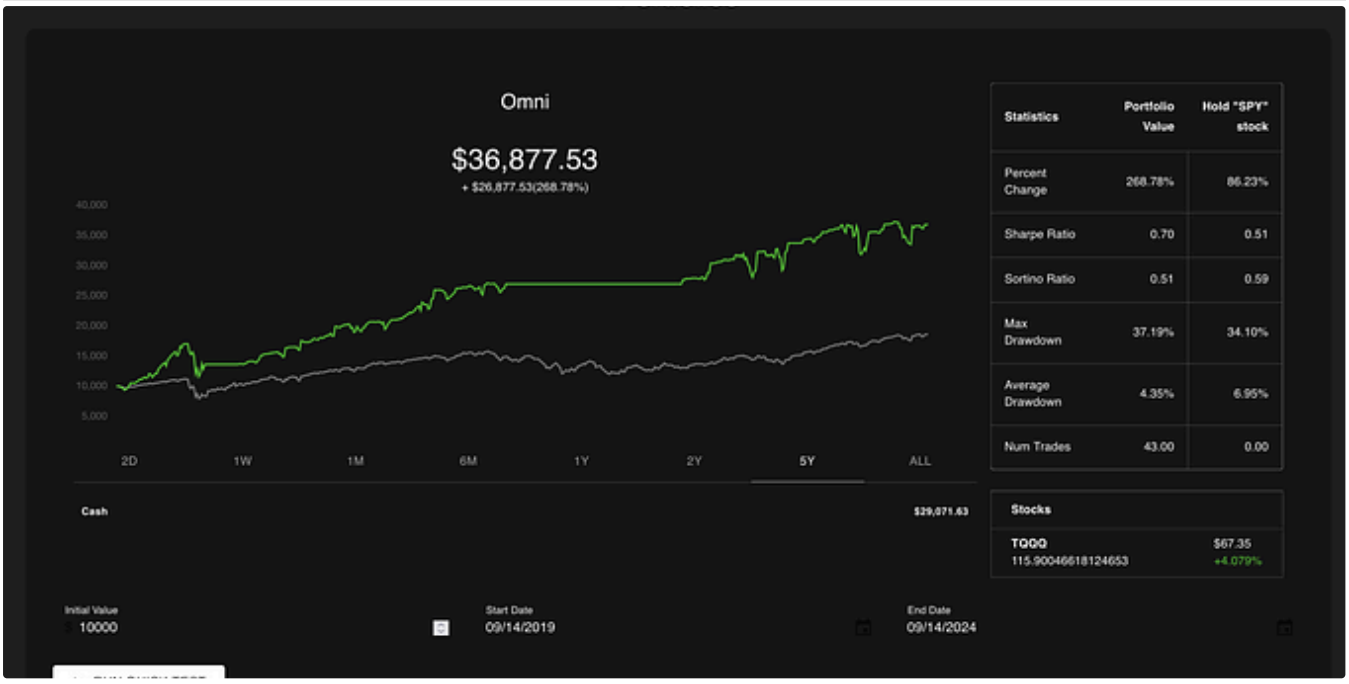


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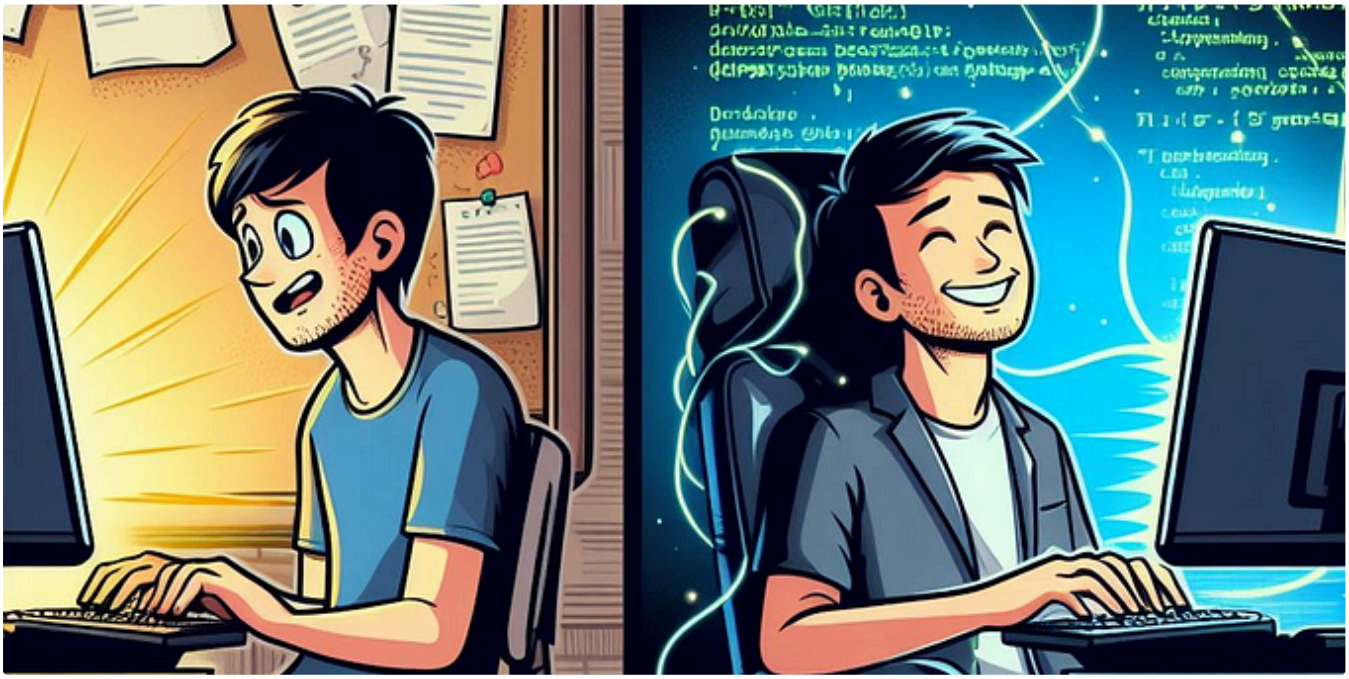

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