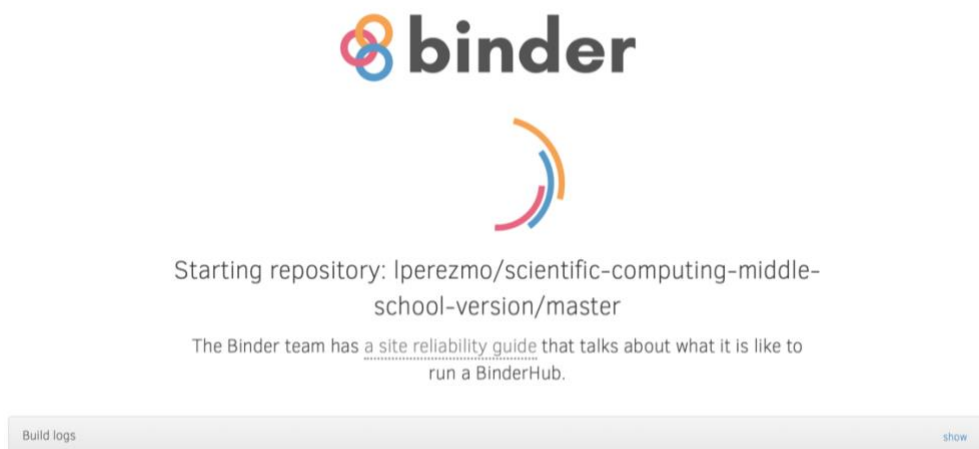


# Introduction

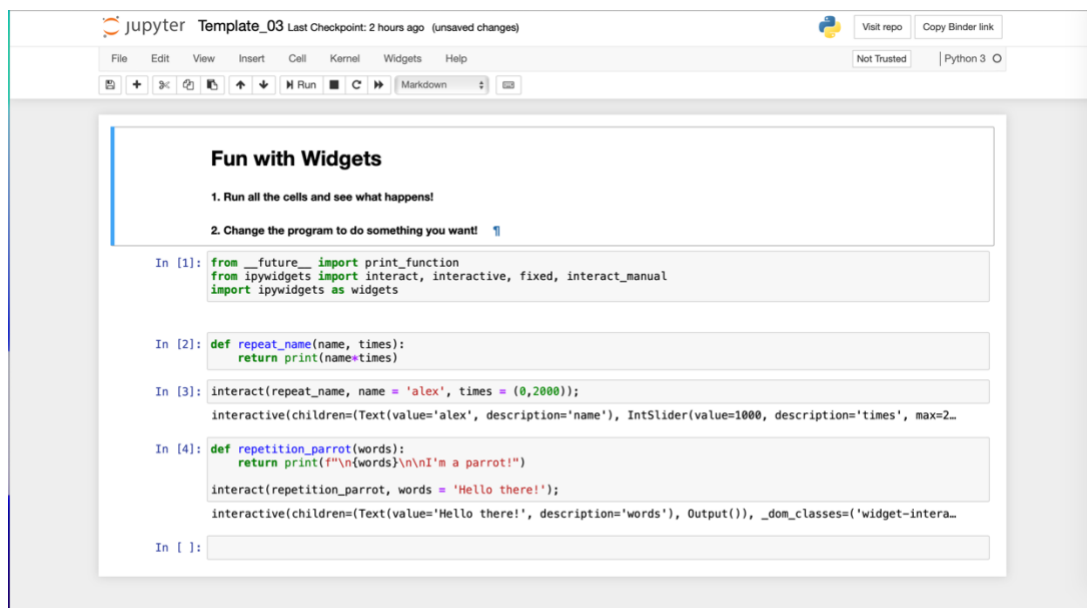
1. Click on the following link:

- a. [https://mybinder.org/v2/gh/lperezmo/scientific-computing-middle-school-version/master?filepath=Project\\_templates%2FTemplate\\_03.ipynb](https://mybinder.org/v2/gh/lperezmo/scientific-computing-middle-school-version/master?filepath=Project_templates%2FTemplate_03.ipynb)

2. The following page will open up. Give it a minute or two to load.



3. Once the page loads, it will look like this:



**4. Click on the top cell and then press ENTER + SHIFT**

## Fun with Widgets

**1. Run all the cells and see what happens!**

## 2. Change the program to do something you want!



5. Keep pressing ENTER + SHIFT until you get to the end of the notebook. It will look like this:

**Jupyter** Template\_03 Last Checkpoint: 2 hours ago (autosaved)

File Edit View Insert Cell Kernel Widgets Help Notebook saved Not Trusted Python 3 ○

## Fun with Widgets

- Run all the cells and see what happens!
- Change the program to do something you want!

```
In [1]: from __future__ import print_function
from ipywidgets import interact, interactive, fixed, interact_manual
import ipywidgets as widgets
```

```
In [2]: def repeat_name(name, times):
        return print(name*times)
```

```
In [3]: interact(repeat_name, name = 'alex', times = (0,2000));
```

```
In [4]: def repetition_parrot(words):
        return print(f"\n{words}\n\nI'm a parrot!")

interact(repetition_parrot, words = 'Hello there!');
```

words Hello there!

**6. Look at the third cell. Try playing around with the slider and see what happens.**

```
In [3]: interact(repeat_name, name = 'alex', times = (0,2000));
```

name alex


times  1444

[illegible]

**Or you can type something different in the box.**

```
In [3]: interact(repeat_name, name = 'alex', times = (0,2000));
```

name Some other name

times  26

Some other name Some other name Some other name Some other name Some other name Some other  
name Some other name Some other name Some other name Some other name Some other name Some  
other name Some other name Some other name Some other name Some other name Some other name  
Some other name Some other name Some other name Some other name Some other name Some other  
name Some other name Some other name Some other name Some other name

7. You can also check out these two other examples (optional):
- a. [https://mybinder.org/v2/gh/lperezmo/scientific-computing-middle-school-version/master?filepath=Project\\_templates%2FTemplate\\_01.ipynb](https://mybinder.org/v2/gh/lperezmo/scientific-computing-middle-school-version/master?filepath=Project_templates%2FTemplate_01.ipynb)
  - b. [https://mybinder.org/v2/gh/lperezmo/scientific-computing-middle-school-version/master?filepath=Project\\_templates%2FTemplate\\_04.ipynb](https://mybinder.org/v2/gh/lperezmo/scientific-computing-middle-school-version/master?filepath=Project_templates%2FTemplate_04.ipynb)