

Notebook 1: Introduction to Jupyter Notebooks (w1)

[Start Assignment](#)

- Due Sunday by 11:59pm
- Points 14
- Submitting a website url

Introduction



Demonstrate proficiency in duplicating a Jupyter Notebook, running code cells, editing cells, and adding new cells. Practice sharing and submitting a notebook for assessment.


Learning Outcomes

1. Create a personal copy or "fork" of an existing Jupyter Notebook. (MLOs 1 & 5)
2. Demonstrate the ability to run code within a Jupyter Notebook. (MLO 5)
3. Demonstrate the ability to edit Markdown text within a Markdown cell. (MLOs 1 & 5)
4. Demonstrate the ability to edit code within a code cell. (MLOs 1 & 5)
5. Demonstrate the ability to add new Markdown and code cells to a Jupyter Notebook. (MLOs 1 & 5)
6. Share and submit a Notebook for assessment according to the expectations of the course assignments. (MLO 5)

What to Do

Create a Jupyter Notebook with a few simple Markdown and code cells.

Step 1: Create Your Notebook

View the following Jupyter Notebook, [CS 513 Notebook 1: Intro to Jupyter Notebooks](https://www.kaggle.com/code/bakosy/cs-513-notebook-1-intro-to-jupyter-notebooks)  (<https://www.kaggle.com/code/bakosy/cs-513-notebook-1-intro-to-jupyter-notebooks>), and look for the *Copy & Edit* button.

[Copy & Edit](#)

Click on the button to create your own *private* copy of the notebook.

Step 2: Implement Your Notebook

Review the contents of the notebook, and follow the instructions in the notebook. When complete, your notebook should look similar to this:

Notebook 1: Introduction to Jupyter Notebooks

Samantha Perfect

```
[1]: # This is a code cell. It invokes a function that has been defined for you. Run the code cell.

from cs_513_notebook_1_scripts import *

print(song_lyric())
```

The code cell above generated some output, which should be visible below the code. Edit this markdown cell. Replace the *FIXME: OUTPUT* below with the output from the code above.

Use markdown to make the text bold. Then, make it a hyperlink to the home page of the band whose song begins with that lyric.

Next, add three new cells below: two code cells (one for each "Demonstration") and a markdown cell at the end.

In the code cells, write programming demonstrations in response to each **Demonstration** prompt.

In the markdown cell at the end, please describe why you are interested in this course, and what you hope to get out of the course.

Demonstration 1

- Define a function named `favorite_food` that returns the name of your favorite food
- Define a function named `favorite_beverage` that returns the name of your favorite beverage
- Write a single line of code that uses these two functions to print the phrase "I like to eat _ and drink _", with the blanks filled in.

```
[3]: def favorite_food():
    return "lasagna"

def favorite_beverage():
    return "whiskey"

print("I like to eat " + favorite_food() + " and drink " + favorite_beverage())
```

I like to eat lasagna and drink whiskey

Demonstration 2

- Define a list that contains the following string values: `["Homer", "Marge", "Bart", "Lisa", "Maggie"]`.
- Define a function named `simpsonize` that accepts a list of strings as input, and returns a new list with `"Simpson"` appended to the end of each string.
- Print the output of invoking your `simpsonize` function, passing it the list of the string values above.

For example, when we invoke `simpsonize(["Harry", "Jane"])` the function returns `["Harry Simpson", "Jane Simpson"]` and you should `print` the result.

```
[4]: def simpsonize(names):
    new_names = []
    for name in names:
        new_names.append(name + " Simpson")
    return new_names

names = ["Homer", "Marge", "Bart", "Lisa", "Maggie"]
print(simpsonize(names))
```

['Homer Simpson', 'Marge Simpson', 'Bart Simpson', 'Lisa Simpson', 'Maggie Simpson']

I am a graduate student in the MS Data Analytics program at Oregon State University, and I work part time as a junior data scientist at ECorp. We are currently developing a new way of teaching machines to play Tetris, and I would like to join that team. My goal is to learn the fundamentals of machine learning so that I can begin to engage in the Smart Tetris project. I hope to learn about the basics of machine learning, common tools and techniques and to be able to have a solid foundation for digging deeper into machine learning for the projects at work. Longer term, I am interested in trying to get a job at Open AI.

Step 3: Share Your Notebook

Save a version of your notebook. Look for the *Save Version* button.

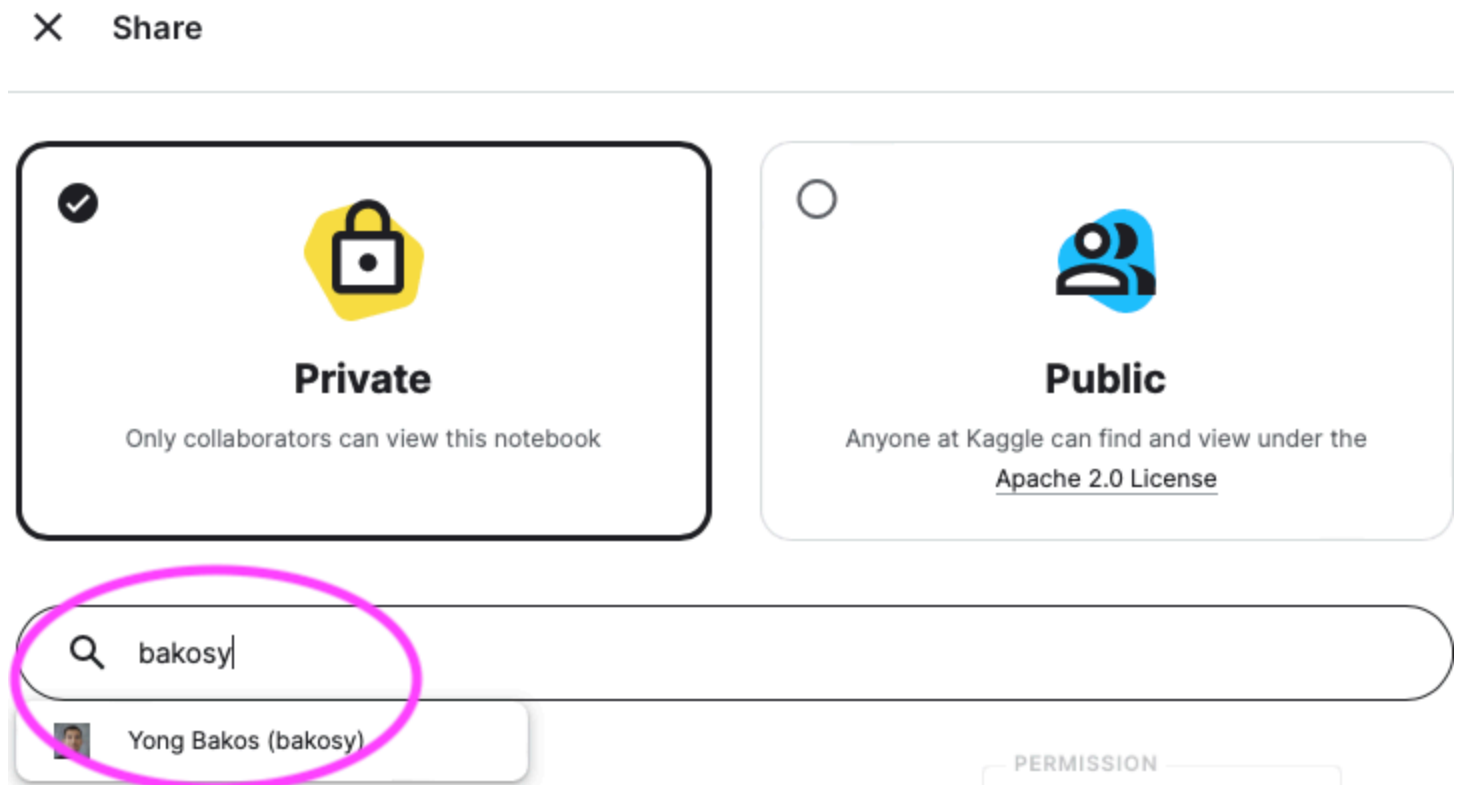


Click on it, and wait until your notebook has been saved.

Next, look for the *Share* button.



Click on it, and be sure that *Private*, and not *Public*, is selected. In the *Search collaborators* field, enter the instructor's username. For example:



Be sure to select the instructor, such that the instructor appears in the collaborators list with the *Can view* permission.

Be sure to click the **Save** button at the bottom of the *Share* panel.

 Save

Step 4: Submit Your Notebook URL in Canvas

Copy the URL of your notebook in the address bar of your browser. It looks similar to:






<https://www.kaggle.com/code/username/cs-513-notebook-1-intro-to-jupyter-notebooks>

This is the URL that we would like you to submit here in Canvas. **Important:** Notice that the URL does not end in */edit*. Please be sure that the URL you submit in Canvas does not end with */edit*. You can simply remove that part when submitting here in Canvas.

Resources

There are many resources for this notebook, including our module Explorations, the resources linked from within the Explorations, and official documentation. Your goal is to synthesize these learning materials, apply them to a problem domain, and demonstrate that you can apply these tools to illustrate our course learning outcomes.

If these resources feel overwhelming, start with the Explorations in this module.

- Exploration: [Introduction to Jupyter Notebooks](https://canvas.oregonstate.edu/courses/2025514/modules/items/25512050) (<https://canvas.oregonstate.edu/courses/2025514/modules/items/25512050>)
- Tutorial: [All About Markdown](https://www.kaggle.com/code/bakosy/all-about-markdown)  (<https://www.kaggle.com/code/bakosy/all-about-markdown>) forked from hyu_sunwoong
- Reading: [The Markdown Guide](https://www.markdownguide.org)  (<https://www.markdownguide.org>) by Matt Cone
- Reading: [Jupyter Project Documentation](https://docs.jupyter.org/en/latest/)  (<https://docs.jupyter.org/en/latest/>)
- Reading: [Python 3.x Documentation](https://docs.python.org/3/)  (<https://docs.python.org/3/>) by Python Software Foundation
- Tutorial: [Intro to Machine Learning](https://www.kaggle.com/learn/intro-to-machine-learning)  (<https://www.kaggle.com/learn/intro-to-machine-learning>) by Kaggle

What to Turn In

Here in Canvas, please submit the URL of your notebook. Please be sure that the URL you submit in Canvas does not end with */edit*. You can simply remove that part, if necessary, when submitting here in Canvas.

Grading Criteria

Please review the rubric for expectations regarding your work, and how we will assess your work.

Extensions

Want an extra challenge? Try the following once you have met the notebook requirements:

1. Consult the Markdown resources and add *six* interesting pieces of content that use different kinds of Markdown formatting.
2. Use the Data panel to browse and add a dataset to your notebook.
3. Try using pandas and Matplotlib to explore and visualize the data in a dataset that you add to your notebook.

Notebook 1

Criteria	Ratings			Pts
Submission The URL of the notebook is submitted correctly per the assignment instructions.	1 pts Proficient	0.5 pts Moderate	0 pts Not Proficient	1 pts
Saved Version The notebook has at least one saved version.	1 pts Proficient	0.5 pts Moderate	0 pts Not Proficient	1 pts
Access The notebook is not shared publicly, and the instructor and/or GTA is added as a collaborator with access to view the notebook.	1 pts Proficient	0.5 pts Moderate	0 pts Not Proficient	1 pts
Completeness The notebook implementation satisfies the instructions, including the edited Markdown cells, new code cell, and new Markdown cell.	5 pts Proficient	2.5 pts Moderate	0 pts Not Proficient	5 pts
Correctness The code and process within the notebook is correct, meeting the criteria described in the notebook and assignment instructions.	4 pts Proficient	2 pts Moderate	0 pts Not Proficient	4 pts
Code Code is well-written, using meaningful identifiers and is written according to professional conventions for the programming language.	1 pts Proficient	0.5 pts Moderate	0 pts Not Proficient	1 pts
Care, Quality & Professionalism The notebook content exhibits professionalism and care. It is free from spelling and grammar errors, is easy to read, is worth presenting to professional colleagues. The notebook does not have stray Markdown content or significant amounts of commented-out code.	1 pts Proficient	0.5 pts Moderate	0 pts Not Proficient	1 pts
Total Points: 14				