

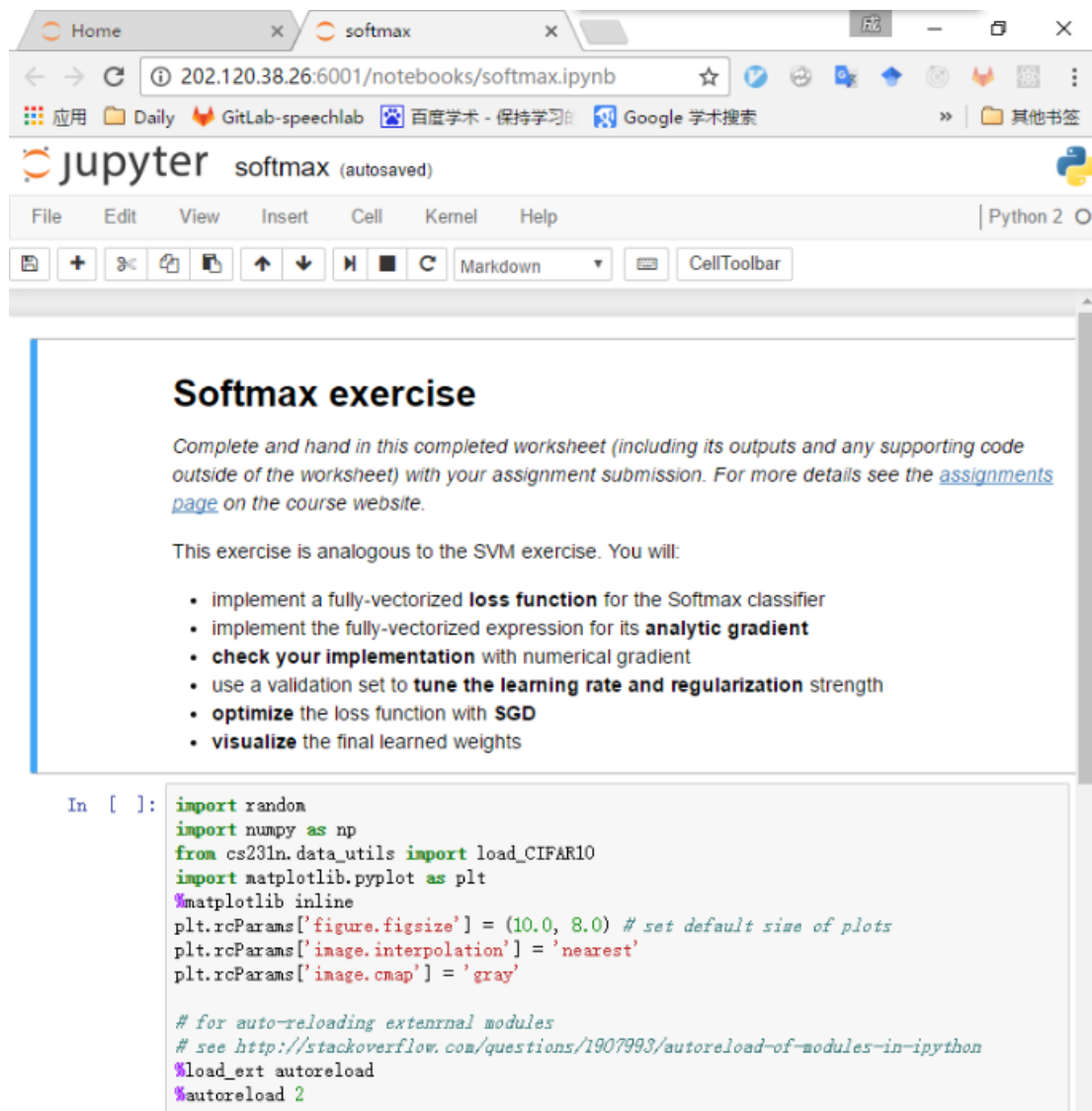


DL Assignments



How to download assignments:

- https://github.com/TomoyaKung/DLCourse_AS
 - I suggest you to watch this repo.
 - New assignments will be uploaded to this repo alongside with course going.
- There is a README about how to setup your workspace.



Softmax exercise

Complete and hand in this completed worksheet (including its outputs and any supporting code outside of the worksheet) with your assignment submission. For more details see the [assignments page](#) on the course website.

This exercise is analogous to the SVM exercise. You will:

- implement a fully-vectorized **loss function** for the Softmax classifier
- implement the fully-vectorized expression for its **analytic gradient**
- **check your implementation** with numerical gradient
- use a validation set to **tune the learning rate and regularization strength**
- **optimize** the loss function with **SGD**
- **visualize** the final learned weights

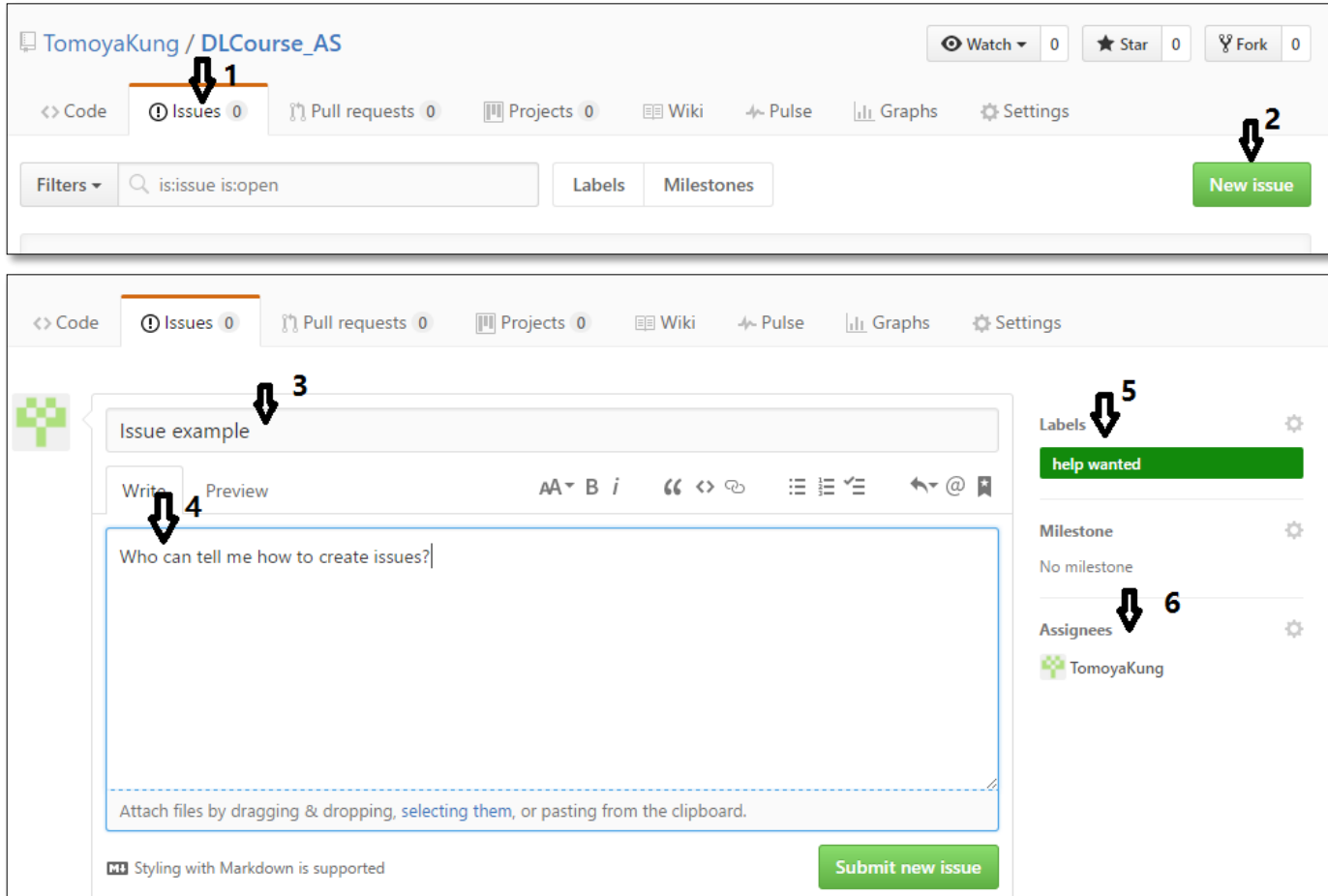
```
In [ ]: import random
import numpy as np
from cs231n.data_utils import load_CIFAR10
import matplotlib.pyplot as plt
%matplotlib inline
plt.rcParams['figure.figsize'] = (10.0, 8.0) # set default size of plots
plt.rcParams['image.interpolation'] = 'nearest'
plt.rcParams['image.cmap'] = 'gray'

# for auto-reloading external modules
# see http://stackoverflow.com/questions/1907993/autoreload-of-modules-in-ipython
%load_ext autoreload
%autoreload 2
```

How to submit:

- Please name your assignments with:
'StudentID-StudentName-AssignmentID.zip'.
 - For example, the second assignment submission of one student may be: '12345-小明-as2.zip'.
- Submit your zip files to: 'ftp://202.120.38.125'.
Public account: dl2016/dl2016.
 - Be careful to upload to corresponding folder.

Discuss and Q&A



The screenshot displays the GitHub interface for the repository **TomoyaKung / DLCourse_AS**. The top navigation bar includes links for **Code**, **Issues** (0), **Pull requests** (0), **Projects** (0), **Wiki**, **Pulse**, **Graphs**, and **Settings**. The **Issues** tab is selected, indicated by an arrow labeled **1**. Below the navigation bar, there is a search filter **is:issue is:open** and buttons for **Labels** and **Milestones**. A green **New issue** button is located on the right, with an arrow labeled **2** pointing to it.

The main content area shows the **Issue example** form. The **Write** tab is selected, indicated by an arrow labeled **3**. The form includes a title field, a **Preview** button, and a text area for the issue description. The text area contains the text **Who can tell me how to create issues?**, with an arrow labeled **4** pointing to it. Below the text area, there is a dashed line indicating where to attach files. At the bottom of the form, there is a green **Submit new issue** button.

On the right side of the form, there are sections for **Labels**, **Milestone**, and **Assignees**. The **Labels** section shows a green **help wanted** label, with an arrow labeled **5** pointing to it. The **Milestone** section shows **No milestone**. The **Assignees** section shows the user **TomoyaKung**, with an arrow labeled **6** pointing to it.

At the bottom of the page, there is a note: **Styling with Markdown is supported**.

Discuss and Q&A

- If you encounter any troubles or find any bugs, feel free to discuss and help others in those issues.
 - Contact me:
 - cheng.chang@sjtu.edu.cn
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