

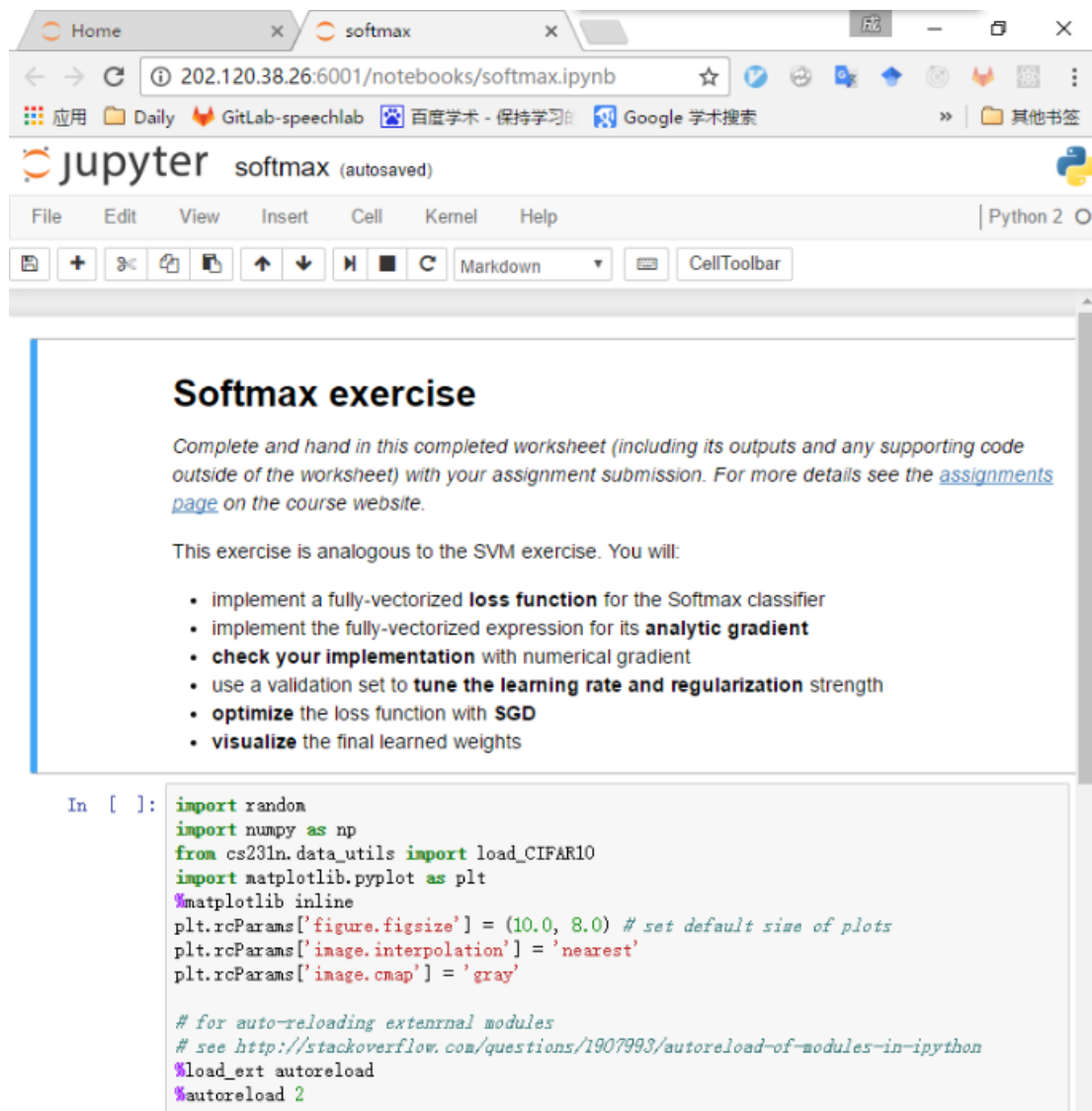


DL Assignments



How to download assignments:

- <https://github.com/caodi0207/Deep-Learning-Course-2017>
 - 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.
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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

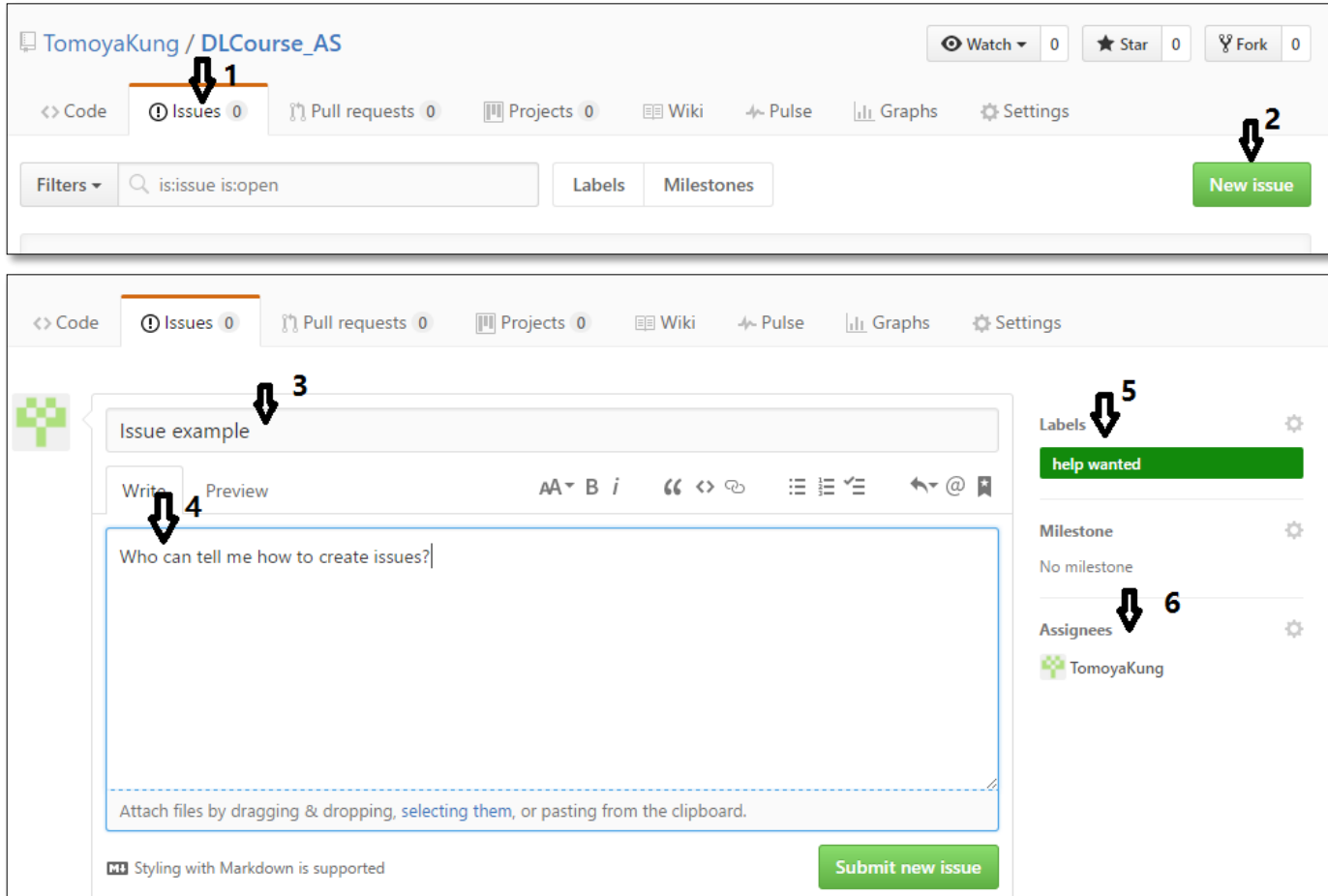
```
In [ ]: import random
import numpy as np
from cs231n.data_utils import load_CIFAR10
import matplotlib.pyplot as plt
%matplotlib inline
plt.rcParams['figure.figsize'] = (10.0, 8.0) # set default size of plots
plt.rcParams['image.interpolation'] = 'nearest'
plt.rcParams['image.cmap'] = 'gray'

# 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: dl2017/dl2017.
 - 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 a red underline and a black 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 a black arrow labeled **2** pointing to it.

The main content area shows the **Issue example** form. The **Write** tab is selected, and the **Preview** tab is also visible. The text input field contains the text **Who can tell me how to create issues?**, with a black arrow labeled **4** pointing to it. The **Labels** section on the right shows a green **help wanted** label, with a black arrow labeled **5** pointing to it. The **Milestone** section shows **No milestone**. The **Assignees** section shows **TomoyaKung**, with a black arrow labeled **6** pointing to it. A black arrow labeled **3** points to the **Issue example** title. At the bottom right, there is a green **Submit new issue** button.

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:
 - caodi0207@sjtu.edu.cn
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