

# XCS229i Problem Set (Practice Submission) (Solutions)

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**Due Monday, 20 July 2020.**

## Guidelines

1. These questions require thought, but do not require long answers. Please be as concise as possible.
2. If you have a question about this homework, we encourage you to post your question on our Slack channel, at <http://xcs229i-scpd.slack.com/>
3. Familiarize yourself with the collaboration and honor code policy before starting work.
4. For the coding problems, you may not use any libraries except those defined in the provided started code. In particular, ML-specific libraries such as `scikit-learn` are not permitted.

## Submission Instructions

**Written Submission:** All students must submit an electronic PDF version of the written questions. We highly recommend typesetting your solutions via L<sup>A</sup>T<sub>E</sub>X, though it is not required. If you choose to hand write your responses, please make sure they are well organized and legible when scanned. The source L<sup>A</sup>T<sub>E</sub>X for all problem sets is available on GitHub.

**Coding Submission:** All students must also submit a zip file of their source code. Create a submission using the following bash command:

```
zip -j practice_submission.zip practice_submission.py
```

You should make sure to (1) restrict yourself to only using libraries included in the starter code, and (2) make sure your code runs without errors. Your submission will be evaluated by the auto-grader using a private test set and will be used for verifying the outputs reported in the writeup.

**Honor code:** We strongly encourage students to form study groups. Students may discuss and work on homework problems in groups. However, each student must write down the solutions independently, and without referring to written notes from the joint session. In other words, each student must understand the solution well enough in order to reconstruct it by him/herself. In addition, each student should write on the problem set the set of people with whom s/he collaborated. Further, because we occasionally reuse problem set questions from previous years, we expect students not to copy, refer to, or look at the solutions in preparing their answers. It is an honor code violation to intentionally refer to a previous year's solutions.

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**1. [1 point(s) Written] What is your name?**

Please write or type your name below.

Jason (Chiao Chun) Yang

**2. [1 point(s) Written] What is your quest?**

Please write or type your quest below.

Learn machine learning and how to build them!

**3. [1 point(s) Written] What is your favorite color?**

Please write or type your favorite color below.

Red

**4. [2 point(s) Coding] Conda Tutorial**

Please complete the tutorial in [coding/CondaTutorial.pdf](#). When you are finished, activate your new CS229 conda environment and create a python file called **practice\_submission.py** that contains the following code. You can copy the code from here: [coding/practice\\_submission.py](#)

```
import matplotlib
import numpy
import scipy
import pandas as pd

class PracticeSubmission(object):
    def __init__(self, response=None):
        """
        Args:
            response: A string
        """
        self.response = response

    def returnResponse(self):
        self.response = "I successfully completed the conda tutorial!"
        return self.response

def runPracticeSubmission(response):
    practice = PracticeSubmission()
    response = practice.returnResponse()
    return response

def main(response):
    response = runPracticeSubmission(response)

if __name__ == '__main__':
    main("Try this out!")
```

Listing 1: **practice\_submission.py**

Afterwards, in your terminal type `zip -r practice_submission.zip practice_submission.py` to create a submission to upload your code.