

Please note that when you are working on the programming exercise you will find comments that say "# GRADED FUNCTION: functionName". Do not edit that comment. The function in that code block will be graded.

1) What is a Jupyter notebook?

A Jupyter notebook is a document that allows you to have executable code and text in the same web-page. With Jupyter notebooks you do not have to download anything on your computer to do the programming exercises. Everything is provided for you online. You will be completing the exercise as you scroll down the webpage without having to jump between different files.

2) What is the coursera hub?

The coursera hub is the workspace which contains the notebook, helper files, data sets, and images. To go to the hub, you should first be in the notebook:



Tensorflow Tutorial

Welcome to your week 7 programming assignment. Until now, you've always used numpy to build neural networks. Now we will step you through a new framework that will allow you to build neural networks easily. The tensorflow library was made for machine learning purposes and we will make sure that you are able to use it. It will make your life much easier and there is also a lot of documentation out there to help you. However, this assignment is self contained and you should be able to complete it without referring to any other documentation. By completing this assignment, you will learn to do the following things in tensorflow:

- Initialize variables
- Start your own session
- Train algorithms
- Implement a Neural Network

Some of the main reasons why you should be using tensorflow is that:

- It is faster because it allows for distributed computing to take place
- It optimizes efficiency by not computing redundant operations again

1) Exploring the Tensorflow Library

Click on File ==> Open as shown below:

Tensorflow Tutorial Last Checkpoint: an hour ago (autosaved)

File Edit View Insert Cell Kernel Widgets Help

Not Trusted Python 3

Tensorflow Tutorial

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1) Exploring the Tensorflow Library

Submit Assignment

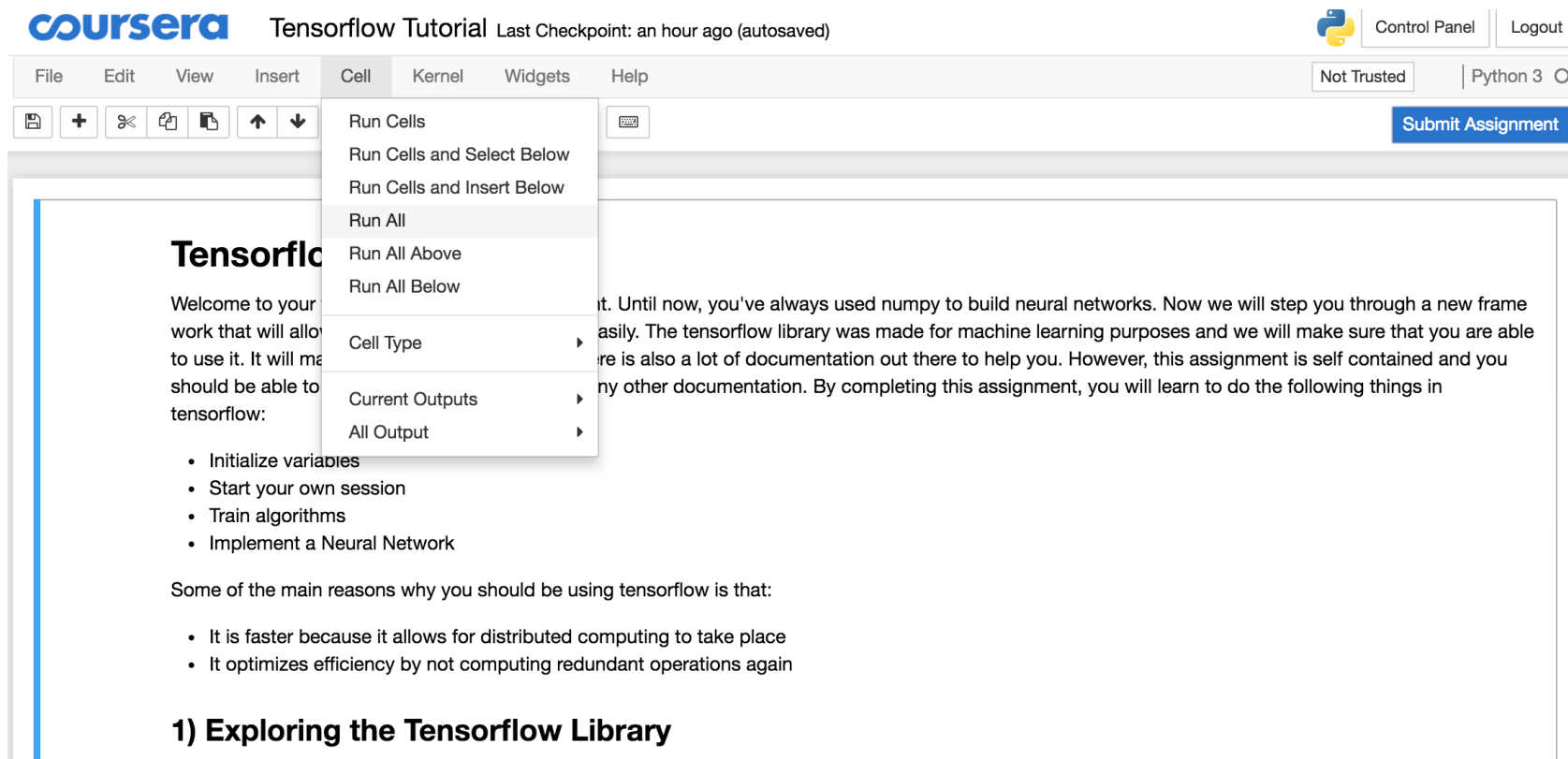
This will lead you to an environment that has all your programming exercises and datasets. You should go there to check out any helper functions that we have provided for you.

3) How do I submit my assignment?

To submit the assignment, click on the blue button in the above image labelled "Submit Assignment."

4) How do I run a cell?

To run a cell, click on the cell and press **Shift & Enter**. You could also run the cell (or cells) by going to Cell and selecting one of the options:



5) What is a kernel?

You could think of the kernel as the core of the Jupyter notebook's operating system. Sometimes if the notebook blocks or if you want to clear all the variables and start all over again, rather than quitting the notebook and opening it again, you could:

The screenshot shows the Coursera TensorFlow Tutorial interface. At the top, the Coursera logo is on the left, followed by "Tensorflow Tutorial" and "Last Checkpoint: an hour ago (autosaved)". On the right, there are buttons for "Control Panel" and "Logout", and a "Python 3" indicator. Below the header is a menu bar with "File", "Edit", "View", "Insert", "Cell", "Kernel", "Widgets", and "Help". A toolbar with various icons is below the menu bar. The "Kernel" menu is open, showing options: "Interrupt", "Restart", "Restart & Clear Output", "Restart & Run All", "Reconnect", "Shutdown", and "Change kernel". The main content area displays the "Tensorflow Tutorial" text, which includes a welcome message and a list of tasks: "Initialize variables", "Start your own session", "Train algorithms", and "Implement a Neural Network".

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Restart the kernel and clear the output if you accidentally end up in some sort of infinite loop.

6) Why do I get different results every time I run the same cell?

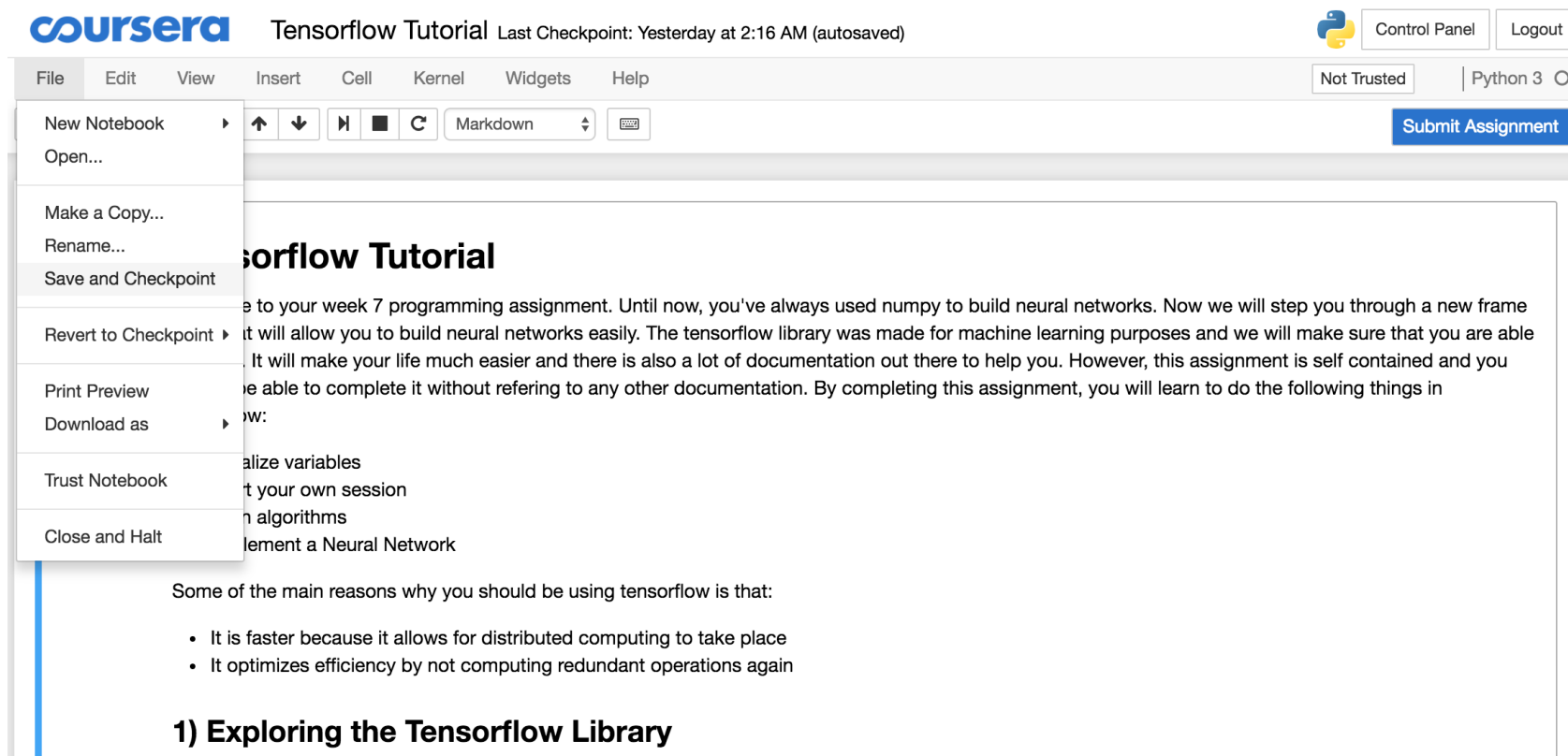
When you run a cell that updates some variable (e.g $x: x+1$), you will get different results for x as it keeps incrementing. Make sure you are not modifying your existing variables.

7) I got stuck on an assignment; what do I do?

In the Discussion Forums, there is a dedicated forum for each week of the course. You can post questions and get answers to them there. Please be sure to abide by the course Honor Code.

8) How do I save my progress?

Click on File ==> Save and Checkpoint



The screenshot shows the Coursera TensorFlow Tutorial interface. At the top, the Coursera logo is on the left, followed by the title "Tensorflow Tutorial" and the text "Last Checkpoint: Yesterday at 2:16 AM (autosaved)". On the right, there are buttons for "Control Panel" and "Logout". Below the title bar is a menu bar with "File", "Edit", "View", "Insert", "Cell", "Kernel", "Widgets", and "Help". The "File" menu is open, showing options: "New Notebook", "Open...", "Make a Copy...", "Rename...", "Save and Checkpoint" (highlighted), "Revert to Checkpoint", "Print Preview", "Download as", "Trust Notebook", and "Close and Halt". To the right of the menu bar is a "Not Trusted" status and a "Python 3" version selector. A blue "Submit Assignment" button is visible on the right side of the interface. The main content area displays the title "Tensorflow Tutorial" and a paragraph of text about the week 7 programming assignment, mentioning numpy and the tensorflow library. Below the text is a list of reasons why you should be using tensorflow, and a section titled "1) Exploring the Tensorflow Library".

Tensorflow Tutorial

Last Checkpoint: Yesterday at 2:16 AM (autosaved)

Control Panel Logout

Not Trusted Python 3

Submit Assignment

File Edit View Insert Cell Kernel Widgets Help

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1) Exploring the Tensorflow Library

9) What should I do if my jupyter notebook froze?

Just restart the kernel by clicking on Kernel ==> Restart.

Mark as completed

