Homework # 5

Class
ECE 568 - Software Engineering of Web Applications

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Assignment
Neural Networks and Volume Calculator Webpage

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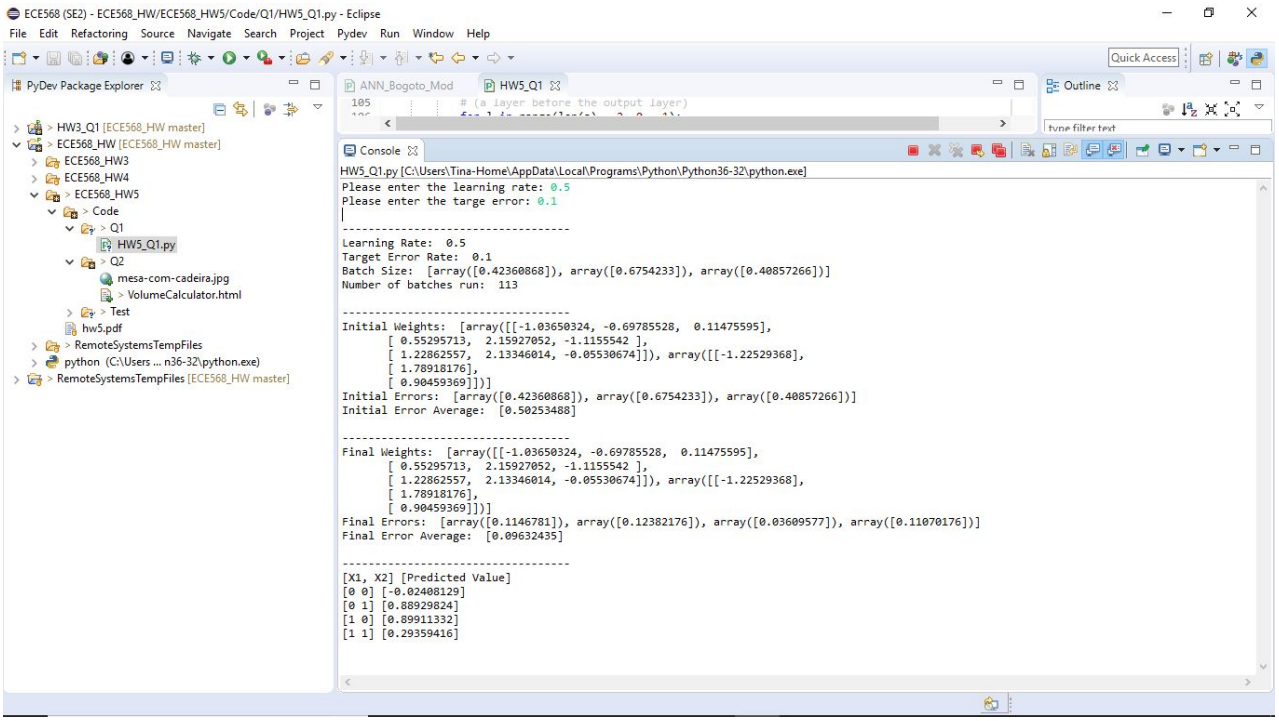
Question 1: Neural Networks:

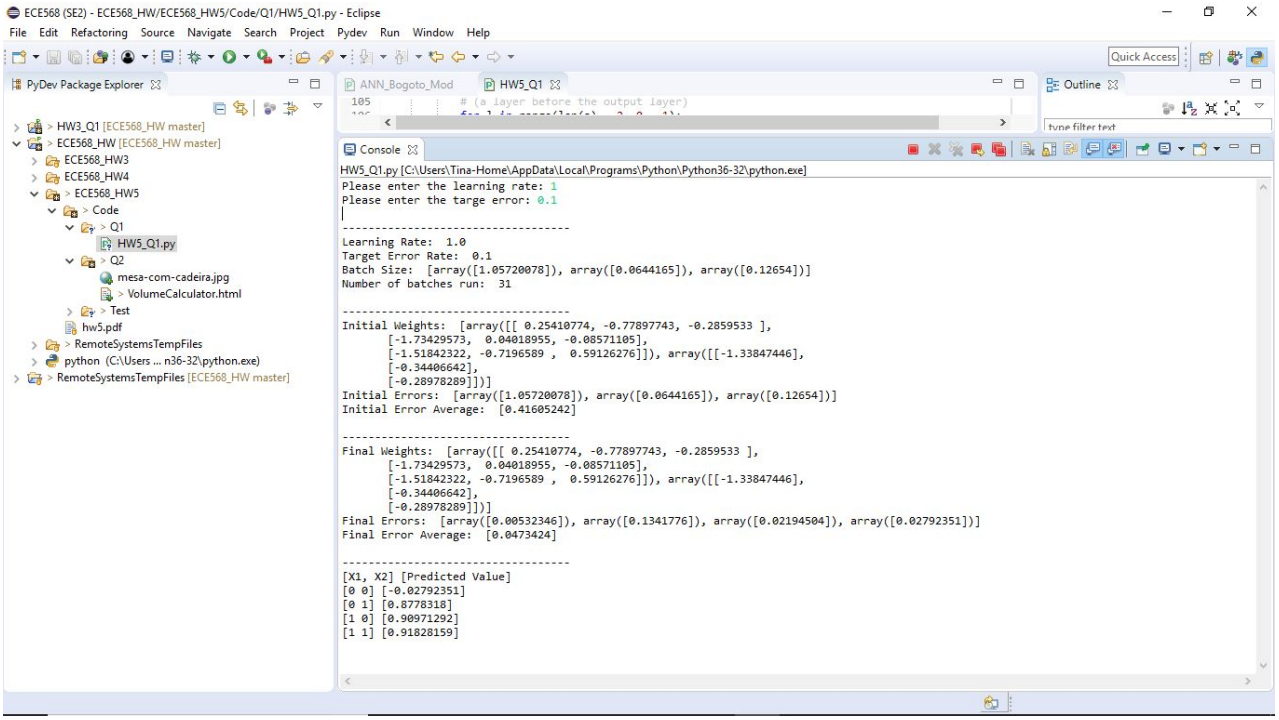
The Code for question 1 is located in folder in the HW_Q1.py file. The code was completed using python 3.7.

Results:

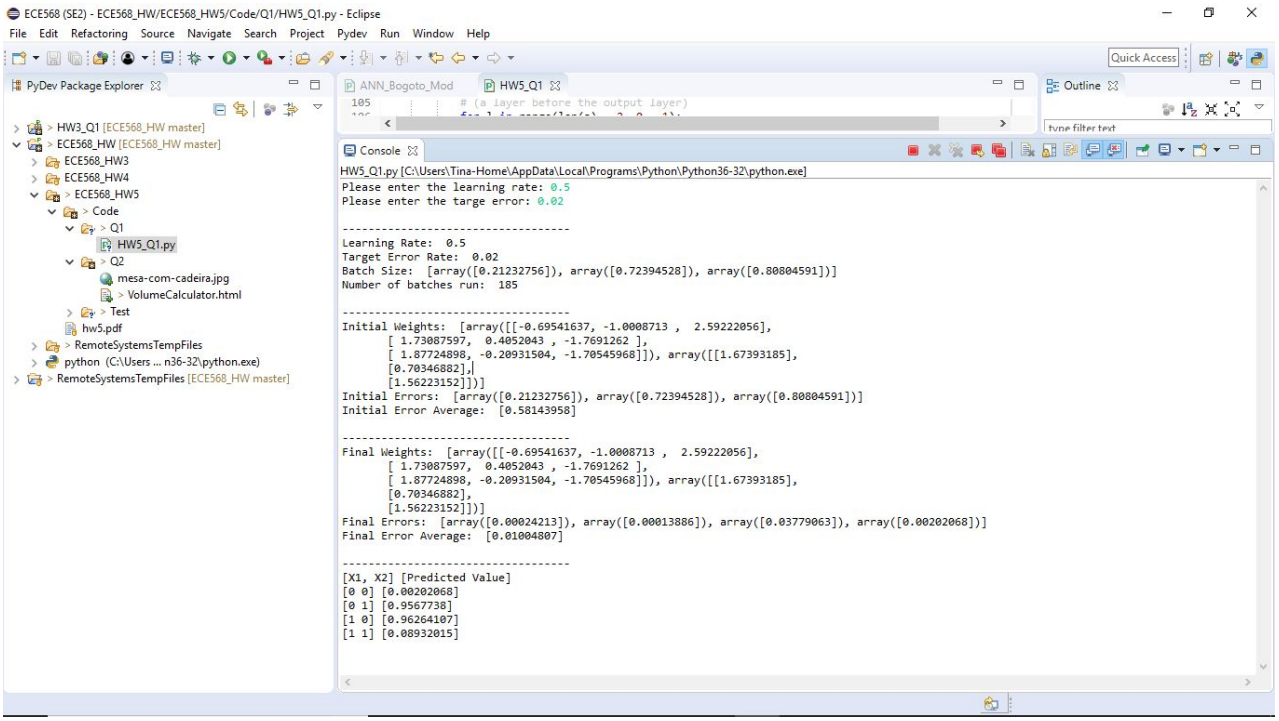
Learning rate = 0.5, Target Error = 0.1



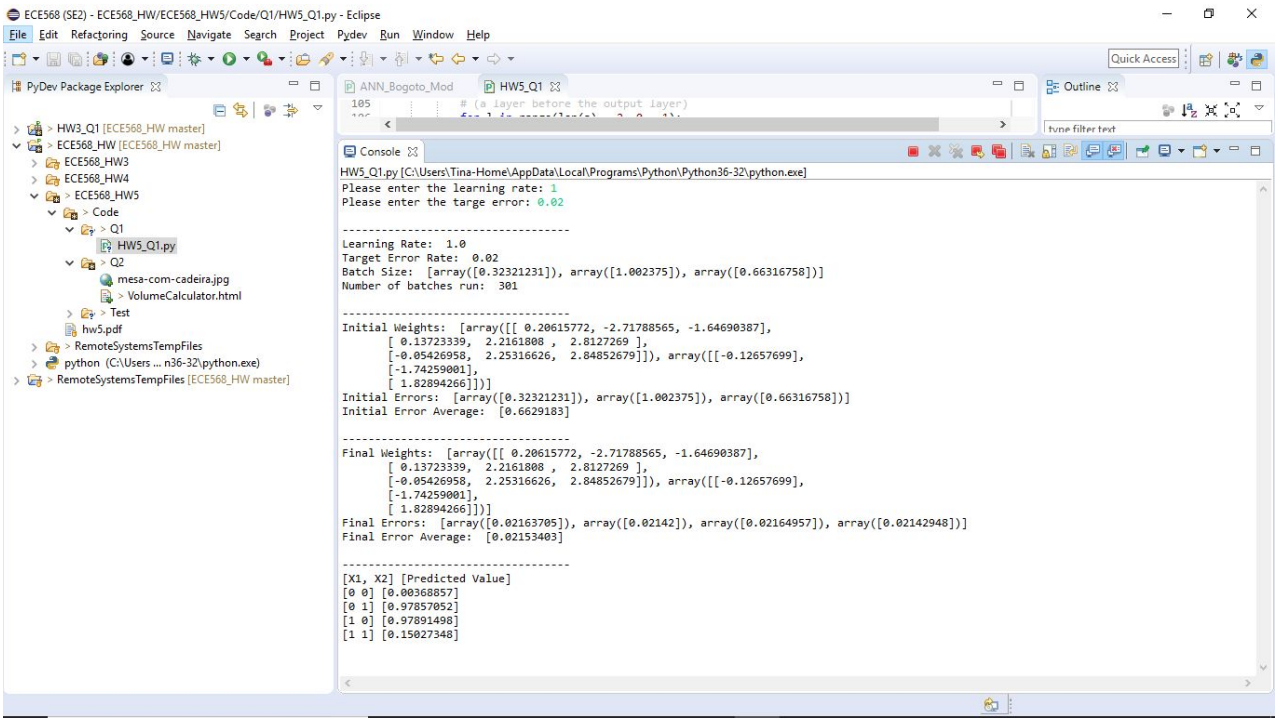
Learning rate = 1, Target Error = 0.1



Learning rate = 0.5, Target Error = 0.02



Learning rate = 1, Target Error = 0.02



Other Measurements

Learning Rate	Target Error	Initial Error	Final Error	Batches
0.2	0.1	0.37	0.14	144
0.4	0.1	0.37	0.09	149
0.6	0.1	0.37	0.10	289
0.8	0.1	0.46	0.10	198
1.0	0.1	0.47	0.10	486

The optimal learning rate for this test run with a target error of 0.1 seems to be 0.4. This may slightly vary from trail to trail.

Question 2: Volume Calculator

This file is located in the Q2 folder under the VolumeCalculator.html file.