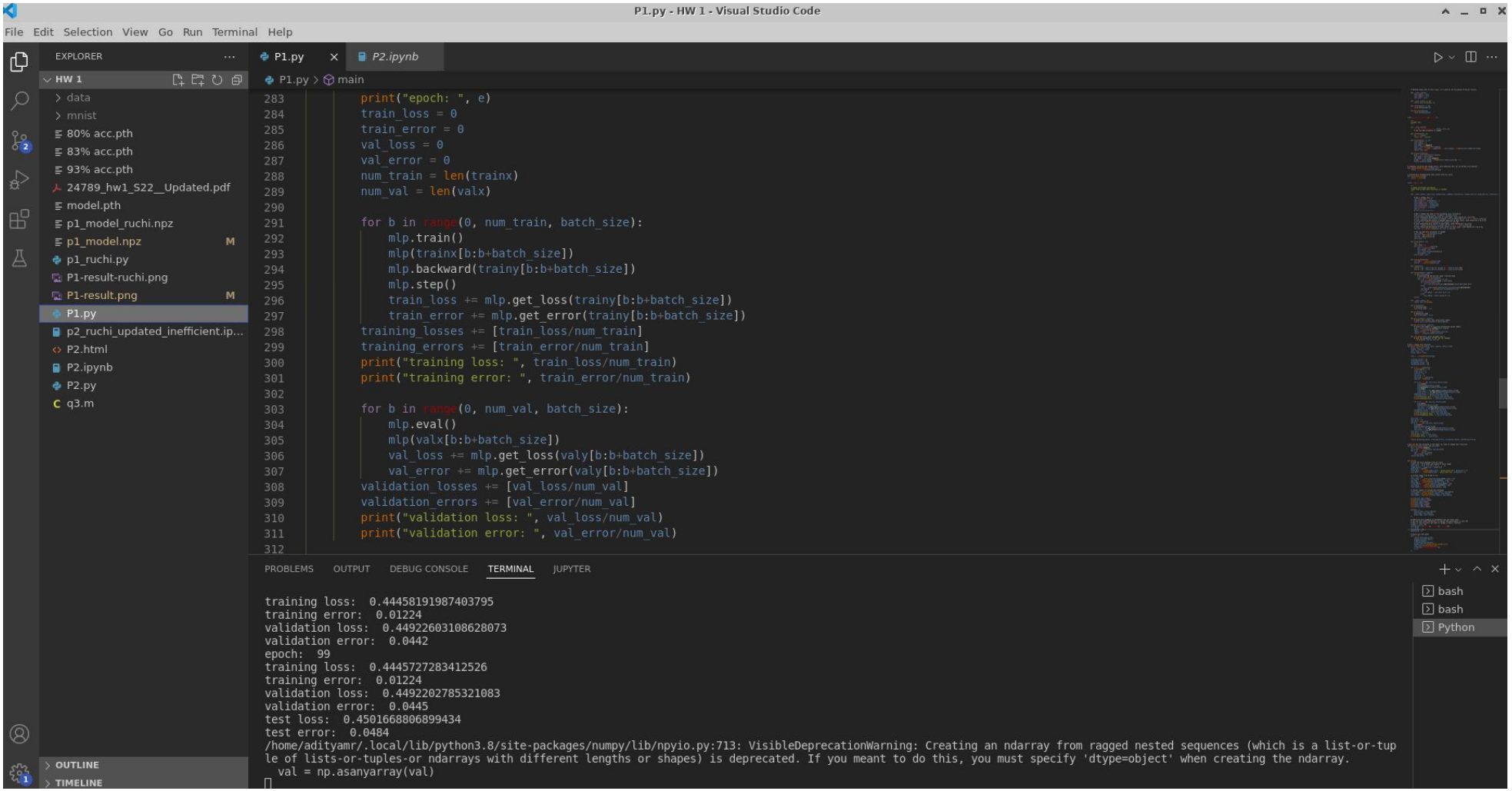
P1.py - HW 1 - Visual Studio Code
File Edit Selection View Go Run Terminal Help
EXPLORER
HW 1
data
mnist
80% acc.pth
83% acc.pth
93% acc.pth
24789_hw1_S22__Updated.pdf
model.pth
p1_model_ruchi.npz
p1_model.npz M
p1_ruchi.py
P1-result-ruchi.png
P1-result.png M
P1.py
p2_ruchi_updated_inefficient.ip...
P2.html
P2.ipynb
P2.py
q3.m
OUTLINE
TIMELINE
P1.py
P2.ipynb
P1.py > main
print("epoch: ", e)
train_loss = 0
train_error = 0
val_loss = 0
val_error = 0
num_train = len(trainx)
num_val = len(valx)
for b in range(0, num_train, batch_size):
mlp.train()
mlp(trainx[b:b+batch_size])
mlp.backward(trainy[b:b+batch_size])
mlp.step()
train_loss += mlp.get_loss(trainy[b:b+batch_size])
train_error += mlp.get_error(trainy[b:b+batch_size])
training_losses += [train_loss/num_train]
training_errors += [train_error/num_train]
print("training loss: ", train_loss/num_train)
print("training error: ", train_error/num_train)
for b in range(0, num_val, batch_size):
mlp.eval()
mlp(valx[b:b+batch_size])
val_loss += mlp.get_loss(valy[b:b+batch_size])
val_error += mlp.get_error(valy[b:b+batch_size])
validation_losses += [val_loss/num_val]
validation_errors += [val_error/num_val]
print("validation loss: ", val_loss/num_val)
print("validation error: ", val_error/num_val)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
training loss: 0.44458191987403795
training error: 0.01224
validation loss: 0.44922603108628073
validation error: 0.0442
epoch: 99
training loss: 0.4445727283412526
training error: 0.01224
validation loss: 0.4492202785321083
validation error: 0.0445
test loss: 0.4501668806899434
test error: 0.0484
/home/adityamr/.local/lib/python3.8/site-packages/numpy/lib/npyio.py:713: VisibleDeprecationWarning: Creating an ndarray from ragged nested sequences (which is a list-or-tuple of lists-or-tuples-or ndarrays with different lengths or shapes) is deprecated. If you meant to do this, you must specify 'dtype=object' when creating the ndarray.
val = np.asanyarray(val)
bash
bash
Python