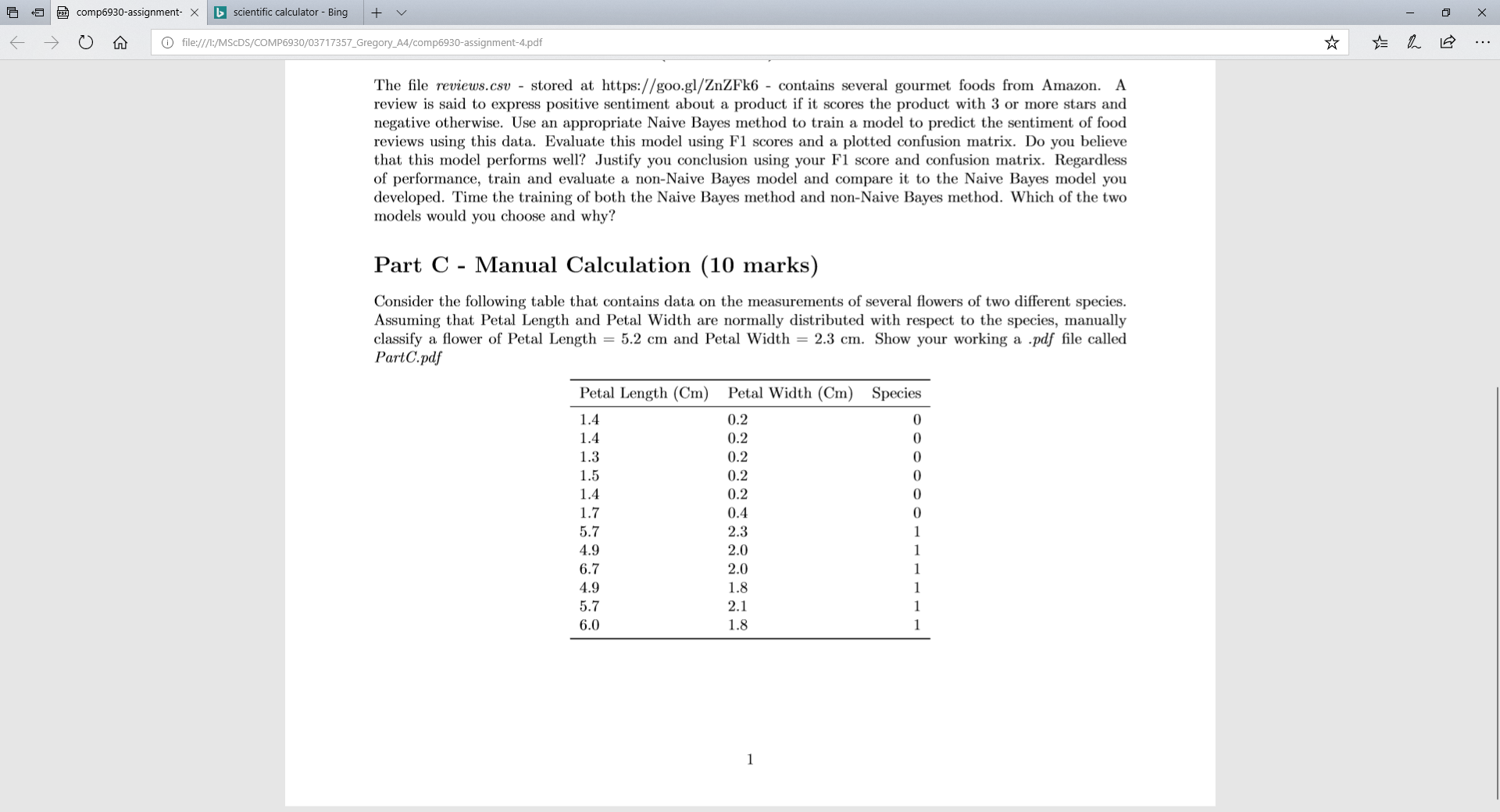


Naïve Bayes Classification

Part C

03717357 | COMP6930 | 24-04-18



Let’s Calculate the Priors.

Now Petal Width and Petal Length are distributed normally with respect to Species.

Let’s use the estimates of the mean and variance to describe these normal distributions.

Now the probability density function of the Normal distribution is given by :

Given a sample x= {petal length=5.2, petal width=2.3}, we wish to establish which Species Class has a higher probability. I.e.

Now

So

Let’s calculate some of the probability densities:

So without going further we can conclude that:

Since

And thus we classify sample x= {petal length=5.2, petal width=2.3} as having species = 1