**REPORT – EARTHQUAKE DATA**

Which parts of the coursework you have attempted and how well you believe you have met the coursework specification?

I have attempted all part of the coursework and I think I have met the specification of every single task to a high standard. Going through the mark scheme I believe I have attained maximum marks from each separate section.

I did have problems with task 6 in which it asked for the sub-questions of task 5 to be displayed. The problems were that I was unsure what or how exactly it wanted me to present the data? Did it want me to present the data separately, as part of the original data? or if I was meant to add the constant values such as the average depth a single time or with each row of data.

Other than that I have not changed such my program for task 10 to consider missing values as this was not specified to reward any marks in the mark scheme. If I were to make any changes, the only significant change I can see if for calculating the average depth to ignore values of the depth that had no reading when dividing to attain an average.

Which parts of the coursework you found difficult and how did you overcome those difficulties?

The most confusing section of the program was the formatting for collecting the new data using the URL in section 9. The first problem with it is that when copying the URL of the resource directly or clicking on it initially my browser considered the underscore as a blank space and so what not accessing the correct website. Next the fact the code provided was incorrect was a little confusing but after searching comparable sections of code on the internet I recognised the formatting and corrected the position of the ‘read’ and ‘response’ details.

The other main problem that I came across was when checking my program at the end for its functionality, for some reason the variable telling my program that new data had been retrieved would not update. I tried many ways to compensate or fix this such as making it a variable specific to the function and therefore could be accessed as a sub name of the function. Another way was returning the value of the new data via the function, finally I defined it as a global variable within the function and after cleaning up my coding a little, and it functioned properly, and stating it was a global variable at the top of the function it worked.

How would you improve your solution if you were to complete the coursework again, and what features would you like to add if you had more time?

There is really little I can see to improve the coding for my program without further knowledge of python, this is the optimum as far as I know. Maybe I could shorten a few functions using complicated iterations but I feel that would be more problematic when reading it over than beneficial.

One improvement I did find was replacing the section for retrieving and decoding the new data, with a section that imported and used ‘codecs’. As due to the nature of it, it could be more efficient and less memory demanding on the computer.

If I were add more details or functions to the program I would make for one the html filed generated a little more user friendly and presentable, though that is a personal preference rather than a necessity. Another process that could be created was one that described the individual terms used within the data such as the meanings of the shorthand notations. Also creating averages for multiple types of the data would be useful, and using a different value for the column depending on the user’s selection this could be a very simple set of coding.