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PROCESS REVIEW

1 TASK A

1.1 Competencies developed

Some of the competencies I have developed throughout this project are:

- A1 – I developed this by identifying a gap in my knowledge and skills for processing .nc files (weather data). Colleagues confirmed MathWorks MATLAB software was a useful tool for this. By using online tutorials and colleague support I was able to develop a script to extract the data I needed.
- C1 – Throughout the project I created and maintained a Gantt chart of activities to help me plan my time. Treating this as a dynamic document ensured I had sufficient time to complete my project and helped me identify the key risk areas to focus on..
- D1 – Throughout this project I have considered the effectiveness of my communication to ensure I could include as much relevant information as possible within the word limit. I have tried to refine and develop my concise writing to take this forward and continue to develop in future projects.

1.2 Importance of developing these competencies

I felt these competencies were important as they give me the skills to continue my future development. By having the ability to identify knowledge gaps and the skills to find out how to improve them I will be able to continue my professional development. As an engineer I am always working to project deadlines and identifying project risks. By doing this independently in the project I have been able to critically appraise my planning and improve this process. Similarly, communicating technical information in a concise and reader friendly manner is critical to my current role.

1.3 Learnings from this experience

From this project I have learnt to better plan my time and gained the confidence overcome gaps in my knowledge, rather than shy away from projects I do not currently have all the skills to complete.

Word count = 299 words

2 TASK B

2.1 What went less well

I had planned to use a northerly north sea current wind farm location for the turbine. When I assessed the temperatures below 0°C found this to be a small percentage which I didn't feel would show the effects of the solution very well.

2.2 Why do you think this was the case

While most recent years were more effected by cold temperatures this wasn't shown over a 10year average. Perhaps there is a discrepancy between what wind farm operators are seeing and the data available.

2.3 What did you do

I widened the area to assess more northerly known wind farm locations in the Norwegian Sea.

2.4 What did you learn

In hindsight I think the difference in the north sea location would still have provided valuable results. I learnt not to discard something just because it may not yield the results I hope for.

Word count = 150 words

3 TASK C

3.1 Identify all parts of my methodology earlier in the project

I felt my project lacked clarity until I properly defined my methodology, leading to anxiety and wasted time on some areas. While the TMAs helped me develop this gradually I feel investing more time in developing it earlier on would have resulted in less lost time.

3.2 Developed my understanding and ability to use MATLAB earlier in the project

I left identifying the turbine location until I really needed it to move forwards. This meant I didn't identify the gaps in my knowledge or skills around using MATLAB until I had undertaken much of the analysis. In hindsight, developing this skill earlier would have enabled me to use this to run some of my calculations more efficiently, saving time

3.3 Worked more consistently on the project rather than in chunks of time

As we have a young family time is precious. I found I had to take holiday from work and weekends to focus on my project, this meant reminding myself where I was at each time. By organising my time better to focus in smaller more frequent periods of time I would work more efficiently.

Word count = 197 words

4 REFERENCES

Engineering Council (2020) UK-SPEC: UK Standard for Professional Engineering Competence [Online], London, Engineering Council. Available at: <https://www.engc.org.uk/standards-guidance/standards/uk-spec/fourth-edition-implemented-from-31-december-2021/> (Accessed 7th September 2024).