**Project Progress Log**

*These reports should be submitted to Turnitin under the submission areas for your project logs. You will need to provide a project log submission every 1 - 2 weeks. Your project logs combined will amass to 10% of your overall grade. Please include any screenshots, commit links etc.*

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| **Student Name** | Kieran Pile |
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| **Supervisor Name** | Andrew Maries |
| **Project Title** | Developing an Artificial Intelligence to accurately assess, analyse and predict weather forecasts. |
| **Date Submitted** | 29th November 2023 |

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| **What has been done and achieved in the last 1 - 2 weeks?** *(be specific in the areas of your project you have worked on)* |
| Investigation into eligible datasets that can be used for the project.    This dataset, provided by [Kaggle.com](https://www.kaggle.com/datasets/muthuj7/weather-dataset) provides the local forecasts for England between the years 2006 – 2016. Additionally:      Data cleaning was applied to the dataset to ensure that the data is at a suitable state to analysis and supply for the artificial intelligence algorithm. |
| **What have you learnt in the last 1 - 2 weeks** *(This may be new programming techniques, design principles, information you have received from peers or tutors.)* |
| Research into the topic has provided beneficial for what libraries are compatible with artificial intelligence and machine learning, i.e., the use of NumPy within the project not only offers tools for manual data analysis and cleaning, but also offers support for machine learning algorithms. |
| **What problems have arisen during the last 1 - 2 weeks work?** *(Highlight and issues you have come across in your studies or areas of your project you have found challenging.)* |
| The incorporation of python libraries originally failed when beginning to develop the project:    Due to limitations, the predetermined libraries with not supported, thus they would have to be installed directly in order to be used. Fortunately, the process of (a) discovering a fix and (b) implementing the fix was straight forward: |
| **What to Do Next (particularly to solve problems) in the next 1 - 2 weeks** |
| Further data cleaning, though not necessary, will aid with optimally preparing the data for the machine learning algorithm, along with testing the dataset using data visualization provided by Matplotlib would mean that the data is fully functional and ready to be implemented.  Furthermore, to host the AI, a website would need to be developed which would include the UI and UX designs that could be an alternative to work upon within the upcoming weeks. |