

### **Academic & Images References –**

What is Arduino. (n.d.). Retrieved from Arduino: <https://www.arduino.cc/en/guide/introduction>

The Model-View-ViewModel Pattern. (2017, 07 08). Retrieved from Microsoft Docs: <https://docs.microsoft.com/en-us/xamarin/xamarin-forms/enterprise-application-patterns/mvvm>

MVVM Design Image - <https://stackoverflow.com/questions/47914573/mvvm-design-pattern-relation-between-viewmodel-and-model?noredirect=1&lg=1>

Essential WindowsPresentation Foundation (WPF) –Book, containing all information necessary to develop WPF applications.

Arduino, S.A., 2015. Arduino. *Arduino LLC*.

### **Legal, Social & Ethical Issues –**

One of the main ethical issues I will need to consider will be the recording and safe storage of the temperature data. As this temperature data could be considered sensitive, I may need to restrict access and ensure the data is stored safely in the SQL database. For this, I will add user accounts with appropriate levels of access to the SQL server.

I will also need to consider issues that may arise whilst recording the temperature data such as the connection between the sensor and the windows device dropping and how I can professionally handle the data in this case.

Another security issue I will need to consider will be protecting the Bluetooth devices to ensure only authorized users can access them. For example, adding a Bluetooth code so only users who know the code can access the Bluetooth data.

As this is a live project, I will need to clarify the ownership and intellectual property of the artefact, between myself, the company and the university

### **Professional skills relate to future employment as a computing professional –**

The world is becoming more dependent upon computers and devices to automate tasks and improve efficiency. In 2020, the number of connected devices is 38.5 billion which is an increase of 13.4 billion for 2015. With this trajectory, humans will continue to use more IoT devices and the demand for skilled programmers will intern increase. Therefore, I believe this project will help me “stand out from the crowd” when applying for graduate opportunities.

As the project is for a live company, I will be able to add the work experience to my CV and increase my chances of employment in the future. The experience will showcase that I can work in a team and develop a high-quality application.