**PROJECT PROPOSAL AND REFLECTIVE SUMMARY TEMPLATE**

**To be completed as part of the portfolio tasks for module CS1S470**

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| **Enrolment number** | 17033128 | |
| **Project title** | Software to re-create a pet reptile’s native environment using smart devices reading from relative weather data. | |
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| **Problem Statement** | |  |
| Many people have pet reptiles and go to great lengths to ensure their comfort, which usually entails recreating their natural environment. This includes things like matching their vivarium's temperature to the average of their natural home or determining how frequently to wet the vivarium based on their native environment's typical moisture and humidity. | | |
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| **Project objectives** | |  |
| * **Design** and develop software that can connect to various smart devices to control the reptile vivarium: The software should be designed to connect and control smart devices such as thermometers and heat mats along with basking bulbs, humidity sensors and misting solutions; and lighting. * **Consider** the bestdata collection options. This software will require a reliable source of real-time global weather data; it will also require a large dataset of reptile native locations: When considering options, it would be beneficial to consider if the best option is to review already available datasets for reptiles, or to create a new custom dataset using available data. As for real-time weather data, reliability of service uptime should be considered, accuracy of virtual representation of the native environment available with such weather data and the algorithms needed to consistently monitor the weather data. * **Identify** issues with reptile safety when using real-time weather software alongside user issues with that could arise with this software for the purposes of minimising potential problems before development. | | |
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| **Project description** | |  |
| Insert project description here (maximum 500 words). To include detail about initial literature review, research methodology selection, and proposed methods of data collection (primary and/or secondary). | | |
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| **Ethical considerations** | |  |
| Insert ethical considerations here (maximum 200 words) | | |
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| **References** | |  |
| Insert references here (maximum of 10) | | |
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| **Project plan** | |  |
| Excel gantt charts | | |

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| **Reflective Summary** |  |
| Write a short summary about what you have learned from your experience with the topic. | |