Software Engineering Group D11 Report

**Section 1 – Group Members**

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| **Name** |
| Matthew Nettleton |
| Chloe Campbell |
| Jiahui Li |
| Thomas Keady |

**Section 2 – Artefact**

[insert screenshots of working product]

**Section 3a – Sprint Logs**

Sprint Plan 1 – 24/10/19

This week we will decide what application to develop for the client and begin planning the development of the artefact. We will also decide what tools would be used in the developmental process of producing the artefact.

Sprint Retrospective 1 – 31/10/19

We decided what application will be developed which enabled us to formulate requirements for the project in the guise of user stories and use case scenarios, both of these allowed us to gain a clearer understanding of what we would need to develop. We researched what APIs we could use and where we could gather them from, we then began working out how to initialise each API.

Sprint Plan 2 – 31/10/19

We wanted to begin to understand how we would proceed with the development of the application by deciding what language would be the most suitable, to what roles each group member would undertake.

Sprint Retrospective 2 – 07/11/19

We devised a clear plan of how our artefact development would take place as we all knew what roles we were taking to produce the application. This was significant because we were now able to generate a backlog of all of the tasks that we needed to complete to finish the product, and therefore we were able to finalise the overall design of the artefact, as well as agreeing on our aims.

We had mostly decided what tools we would use, so we all knew what each other would be using for their own facet of the application.

This week we managed to analyse our user stories to complete a backlog on GitHub, and in doing so finished setting up the repository for our shared work, which led to the beginning of a prototype application and an accompanying domain model diagram.

Sprint Plan 3 – 07/11/19

Finish development of prototype to a presentable standard and gather feedback on our project.

Sprint Retrospective 3 – 14/11/19

We had a prototype application complete with a UI design suitable for our final product and discussed how to implement retrieving data through the APIs that we had access to.

We presented what we had developed up to this point to the client and ascertained further requirements and took onboard potential improvements and discussed how to alter the product we had in mind to make it more suitable for what the user needed.

Sprint Plan 4 – 14/11/19

To focus on the code aspect of our project and to have a complete product at the end of this sprint cycle.

Sprint Retrospective 4 -21/11/19

We successfully completed the development of our product implementing the APIs that we had secured and had fully tested the application.

We also made sure that all of our documentation was complete so we could retrospectively analyse the processes that we used in this project.

**Section 3b – Individual Contribution**

Your own contribution to the project – what did you do, what roles did you have?

**Section 3c – Pair Programming Logs**

Log Number:

Driver: [Who was programming]

Observer: [Who was helping]

|  |  |  |  |
| --- | --- | --- | --- |
| Session Time | Lines of Code Written | Errors Spotted and Details | Outcome |
|  |  |  |  |

**Section 3d – Sprint Charts**

**Section 3e – Stand-up Meeting Logs**

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| --- | --- | --- | --- |
| Date and Duration | Meeting Attendees | Meeting Agenda | Outcome |
| Thursday 24th October  2 Hours | Matthew, Jiahui, Chloe, Thomas | Decided what application we will develop. Devised user stories and developed user requirements from stories. Discussed API key gathering. | We knew what application to develop and had a list of user stories and accompanying requirements. Knew what API keys would be need and where to collect them from. |
| Thursday 31st October  2 Hours | Matthew, Jiahui, Chloe, Thomas | To understand the development process and cycle of the application. | We knew what roles each group member would undertake, and we decided as a group what language we would develop the application in. |
| Thursday 7th November  2 Hours | Matthew, Jiahui | Present the application in its current state to client and ask for further information. | We gathered more information about what we need to develop from the client and retrieved feedback about the application prototype. |
| Thursday 14th November  2 Hours | Matthew, Jiahui, Chloe, Thomas | Discuss general design of application and what information will be displayed. | Gained a solid understanding of what the finished product will look like. Developed a testing environment. |
| Thursday 21st November  2 Hours | Matthew, Jiahui, Thomas | Finalise what we will have in the product, see if we can get any extra features in. | Had enough development to complete the product in time. |

**Section 4a – Critical Reflection on the use of SCRUM**

Provide a Critical reflection of the use of SCRUM for the development of this artefact.

**Section 4b – Evaluation of Other Software Development Methodologies**

Referring to other software development methodologies and processes you may have used previously, such as Waterfall, critically evaluate the process of developing an artefact using SCRUM and Agile processes.

**Section 4c – Advantages and Disadvantages of SCRUM**

This critical evaluation should include both the advantages and disadvantages of the SCRUM methodology. You should pay particular attention to how SCRUM differs in terms of implementing the methodology compared to others such as Waterfall, DSDM, Spiral, etc.

**Section 5a – Evaluation of Software Development Tools**

An evaluation of tools used to facilitate the development of an open source project using SCRUM

**Section 5b – Tools Used**

GitHub – To upload parts of the assessment that contribute to the final project and to use as a backlog and progress guide.

Openweathermap.org - API for weather data.

Twitter.com - API for social media posts.

Newsapi.org - API for news content.

Python 3 – To develop the application.

Sportradar.us – API for Formula 1 related information such as event times, dates, locations, and championship standings.

Facebook Messenger – To Communicate as a group.

[add more and describe how they were used]

**Section 5c – Advantages and Disadvantages of Tools Used**

What were the advantages and disadvantages of these?

**Section 6 – Team Performance Evaluation**

How, in your opinion, did your group members (not yourself) contribute to the assessment? Allocate a percentage to each group member. They can all have 100% if you think they all contributed well, or individuals can be assessed as having a less than 100% contribution. Individual scores will be weighted according to their average contribution. A final assessment mark is reached by multiplying a value derived from the assessment score according to the average contribution. Eg:

Average Contribution Multiply value

70% - 100% 1.0

50% - 69% 0.9

30% - 49% 0.8

0% - 29% 0.7

For example, if a student report is assessed as 65%, and their average contribution is 80%, then the final grade for the report will be 65. While if a

student report is assessed as 55% and their average contribution is 60%,

then their final report mark will be (55\*0.9) = 50

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| **Name** | **Contribution** |
| Matthew |  |
| Chloe |  |
| Juahui |  |
| Thomas |  |

**Section 7 - References**