**SPRINT DOCUMENTATION**

| 1. **Summary data** | |
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| Team number | Team 15 |
| Sprint technical lead(s) | Morgan, Ryan |
| Sprint start date | 07/03/2023 |
| Sprint end date | 14/03/2023 |

| 1. **Individual key contributions** | |
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| **Team member** | **Key contribution(s)** |
| Yash | Documenting |
| Nelson | Documenting |
| Eddie | Testing |
| Noah | Testing/ Design |
| Ryan | Programming / Design |
| Morgan | Programming |

| 1. **User stories / task cards** |
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| Story: GUI in Pygame for displaying the board (Hex Grid), including a dice roll function and a basic front-end to show features of the game. This will include timelogs, the resource cards and assets players own.  Table showing a series of tasks with descriptionsm, durations and any predecessors   | Task Number | Task Card | Duration  (Days) | Predecessor(s) | | --- | --- | --- | --- | | A | Identify Scope/ Requirement Analysis | 2 | None | | B | Risk Analysis | 1 | A | | C | Implement Turns | 2 | None | | D | Add end of turn checks | 1 | C | | E | Road building on non-adjacent nodes | 6 | None | | F | Player logic | 6 | None | | G | Testing Start | 6 | None | | H | Documentation (Update Cycle Doc, meeting etc) | 5 | None | | I | Review and Delivery | 1 | C,D,E,F |   Table showing tasks and their lifespan   | Task | Duration | Earliest Start | Earliest Finish | Latest Start | Latest Finish | Critical Path | | --- | --- | --- | --- | --- | --- | --- | | A | 2 | 0 | 2 | 0 | 2 | Yes | | B | 1 | 2 | 3 | 2 | 3 | Yes | | C | 2 | 0 | 2 | 0 | 2 | Yes | | D | 1 | 2 | 3 | 2 | 3 | Yes | | E | 6 | 0 | 6 | 0 | 6 | Yes | | F | 6 | 0 | 6 | 0 | 6 | Yes | | G | 6 | 0 | 6 | 0 | 6 | Yes | | H | 5 | 0 | 5 | 0 | 5 | Yes | | I | 1 | 6 | 7 | 6 | 7 | No |   A PERT chart was created and it can be found in the PERT chart folder inside of this zip file. |

| 1. **Requirements analysis** |
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| | Functional Requirements | | | | --- | --- | --- | | Reference | Description | Mandatory/Desirable | | F1 | Ensure the implementation of Turns and End of Turns are functional | Mandatory | | F2 | Reaching the flawless stage of sophisticated modern dynamic logic that model information flow, communication, and interactive structure in games | Mandatory | | F3 | Indicator of which road been built on non-adjacent nodes | Mandatory |  | Non-Functional Requirements | | | | --- | --- | --- | | NF1 | Colour of road building indicator can be unique | Desirable | | NF2 | Customise player interface | Desirable | |

| 1. **Risk Analysis** |
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| | Risk1: | | | --- | --- | | Risk Description (Identification) | Staff unable to work due to part time working (People Risk) | | Likelihood of Risk | Moderate | | Risk Impact | Delays on the development of the prototypes | | Mitigation of Risk | Plan out substitutes to cover one another | | Monetization of Risk | Created a google calendar including everyones’ shifts |  | Risk 2: | | | --- | --- | | Risk Description (Identification) | Unsophisticated development of testing using Pytest | | Likelihood of Risk | High | | Risk Impact | Bugs and errors might emerge, testing can’t be passed | | Mitigation of Risk | Pairing two testing members so they can verify each other codes | | Monetization of Risk | Leading programmer showing the resources and how to learn Pytest for our testing members to learn |  | Risk 3: | | | --- | --- | | Risk Description (Identification) | Burn out might appear for our lead programmer if sticking to the current project coordination | | Likelihood of Risk | High | | Risk Impact | Quality of code might decrease and rescheduling might needed for reinforcement | | Mitigation of Risk | Switching the position of lead programmer between the two best programmers within our team | | Monetization of Risk | Project manager suggesting alternative solutions to prevent burn out appear on the coding team | |

| 1. **Design**      * Our prototype(The Board(Hex Grid)) finally completed within the third sprint cycle      * The basics of a road builder also implemented while all the nodes are mapped out      * The actual tiles also implemented with the red and green line indicator shown above |
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| 1. **Test plan and evidence of testing** |
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| Our testing members (Eddie & Noah): Trying to familiarise with Pytest and gonna start after some preparation. |

| 1. **Summary of sprint** |
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| *You should consider and discuss:*   * *We absolutely achieved our goals for this sprint cycle with the prototype showing the board, road and tiles* * *There are some technical issues that occur when each member is using different brands of laptop. Our code usually works on other brands except MacBook, but after reinstalling python globally, setting up git on vscode and cloned the repo, It also works on MacBook. In addition, since we only have only one member knowing how to use Pytest, we managed to spread out the workload by helping 2 members to learn Pytest from scratch. Therefore, we learnt that a software engineer can significantly improve while participating in a project and it appears that implementing is the best to learn instead of plainly memorising theory* * *The customer think the tiles should rotated back to normal instead of every single one rotated to the left, but the customer is satisfy with this week sprint cycle result* |

| 1. **Notes** |
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