Minecraft Settlement Generation AI - Project Plan

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1 Abstract

2 Tasks Planned

Assigned To	Task
Blake, Michael	Set up development environment
Blake, Michael	Test out HTML interface framework and learn how to use it
Blake, Michael	Conduct further research of possible algorithms/approaches
Blake, Michael	Finalize details of decided algorithm/approach
Michael	Code outline for Python script
Blake	Design settlement type(s) and implement the details in Python code
Michael	Implement terrain analyzer
Blake	Implement house generation
Michael	Implement farm generation
Blake	Implement field generation
Michael	Implement bridge generation
Blake	Implement food production generation
Michael	Implement tunnel generation
Blake	Implement road generation
Blake, Michael	Create project presentation

3   Estimated Timetable

	Tasks
Week 1	Set up development environment, Test out HTML interface framework and learn how to use it, Conduct further research of possible algorithms/approaches
Week 2	Finalize details of decided algorithm/approach, Code outline for Python script, Design settlement type(s) and implement the details in Python code
Week 3	Implement terrain analyzer, Implement house generation
Week 4	Implement farm generation, Implement field generation
Week 5	Implement bridge generation, Implement food production generation
Week 6	Implement tunnel generation, Implement road generation, Begin working on project presentation
Week 7	Finishing touches and final bug fixes on settlement generator, Finalize project presentation

4 References

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[3] Jean-Baptiste Hervé and Christoph Salge. "Comparing PCG metrics with Human Evaluation in Minecraft Settlement Generation". In: *arXiv:2107.02457 [cs]* (July 6, 2021). arXiv: `2107.02457`. URL: `http://arxiv.org/abs/2107.02457` (visited on 02/24/2022).

[4] Christoph Salge et al. "Generative Design in Minecraft (GDMC), Settlement Generation Competition". In: *Proceedings of the 13th International Conference on the Foundations of Digital Games* (Aug. 7, 2018), pp. 1–10. DOI: `10.1145/3235765.3235814`. arXiv: `1803.09853`. URL: `http://arxiv.org/abs/1803.09853` (visited on 02/24/2022).

[5] Christoph Salge et al. "Generative Design in Minecraft: Chronicle Challenge". In: *arXiv:1905.05888 [cs]* (May 14, 2019). arXiv: `1905.05888`. URL: `http://arxiv.org/abs/1905.05888` (visited on 02/24/2022).

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