**Project Overview:** Working on this was a great experience. I enjoyed every aspect of it. I began by creating the model itself with the lowest possible vertex count, resulting in around 3000 vertices. Then, I smoothed edges and added details to create normal maps, ambient occlusion maps, and roughness maps from the detailed model to apply to the original. After texturing in Substance Painter, I returned to the original model and reduced its vertex count from 3000 to 1022, considering the object's intricate details. I encountered challenges in managing the high vertex count and had to strategize on which parts could be removed without affecting the visible aspects in a game. Reducing circular objects significantly helped without being noticeable. In total, the process took me a day, and I thoroughly enjoyed it.

**Workflow:**

1. **Model Creation:** The process began by creating the model with the lowest possible vertex count, approximately 3000 vertices.
2. **Detailing:** Edges were smoothed, and additional details were added to create normal maps, ambient occlusion maps, and roughness maps from the detailed model.
3. **Texturing:** Substance Painter was used to texture the model.
4. **Optimization:** Returning to the original model, vertex count reduction was crucial. The count was decreased from 3000 to 1022 to accommodate intricate details.
5. **Challenges:** Managing the high vertex count posed a challenge. Strategic removal of non-visible parts was necessary to maintain performance.
6. **Resolution:** Circular objects were reduced significantly, optimizing the model without sacrificing visual quality.
7. **Timeframe:** The entire process took one day.

**Tools Used:**

* Modeling: Blender
* Texturing: Substance Painter
* Optimization: Blender

**Challenges Faced and Resolutions:**

* **High Vertex Count:** Strategic removal of non-visible parts and significant reduction of circular objects helped optimize the model without compromising quality.

**Conclusion:** The project was completed successfully within the 1 day timeframe. The optimization process ensured optimal performance in the game environment without sacrificing visual fidelity.

This documentation serves to provide insight into the workflow, tools used, challenges faced, and their resolutions throughout the project.