**Final Memo Outline**

* **Introduction – Client/Sponsor and Project Overview as well as why the sponsor is doing the project. What business value does your sponsor receive from the project**

Chest X-ray exams is one of the most frequent medical imaging examinations available. However, the diagnosis of a chest X-ray can be extremely challenging when compared to diagnosis from other imaging examinations, i.e., CT scan. Thus, in this project, we are aiming to automate the process of diagnosis to achieve relevant computer-aided detection and diagnosis (CAD) with chest X-rays. From a business perspective, hospitals rely heavily on doctors for diagnostics through various imaging examinations. Therefore, this CAD project is targeted at hospitals, that want to maximize efficiency by automating diagnosis procedures, improving healthcare, and thus be cost effective. Furthermore, we are aiming to implement Artificial Intelligence in a manner that reduces the load on doctors as well as reduced the probability of human-prone error.

* **Original Plan (Gantt Chart and tasks)**

Table

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* **Scope Changes (what changed and why was the change needed?)**

Data size because It took a long time to our machine process the data. The data was super large. I might decrease the accuracy. So we decided to use powerful machines , for the future development.

* **Final Gantt Chart**

A picture containing graphical user interface

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* **Description of your solution and the Final Deliverables**

The integration of this product into the clinical system could help health institutions and doctors advance patient care by reducing the time to diagnose. Efficient Automated X-Ray Diagnosis procedures by using AI prediction models, which will interpret chest X-ray images quickly and more accurately by reducing human prone errors. The final product of this project would be a high-accuracy model that diagnoses different types of chest diseases when an X-ray image is provided as input. Also, will help in solving specialist shortage problems in rural areas.

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* **Next Steps for the sponsor**

Sponsor will examine our project and if everything go well, she introduces our project to NIH.

* **Conclusion (including lessons learned and challenges overcome)**

We learned a lot in this project. We learned how to convert an idea to a prototype, and we learned how to write a business plan for our idea. We understood we might face some technical problems and it might result in the project delay. So, we should have more flexible timeline in our project and estimate a potential delay.