**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 13 May 2023 |
| Team ID | NM2023TMID05684 |
| Project Name | CovidVision: Advanced COVID-19 Detection from Lung X-rays with Machine Learning or Deep Learnings |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Evaluate the CovidVision: To Advanced COVID-19 Detection from Lung X-rays with Machine Learning or Deep Learnings |
|  | Idea / Solution description | The COVID-19 ([WHO, 2019](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9575860/#ref-28)) virus is a fast-spreading disease that has appeared all over the world; [Armstrong & Richter, 2021](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9575860/#ref-2)represents the high spreading of COVID-19 in many countries as of February 8, 2021. It affects all aspects of life, economically, educationally, healthily, socially, and, most dangerously, human health, as it has caused the death of millions of people ([Maatuk et al., 2022](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9575860/" \l "ref-13)). There are two ways to control the spread of the virus: one is to take precautions, and the other is to take the vaccinations that are being specifically developed to defend against the disease. Studies have shown that vaccinations could cause allergic responses ([Schumaker et al., 2020](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9575860/" \l "ref-20)), thus some people may not be allowed to take it and would lead to the other way which is the early detection of the disease by chest x-ray to develop a treatment plan which provides a great opportunity for recovery and to prevent its spread. |
|  | Novelty / Uniqueness | COVID-19 is a widespread deadly virus that directly affects the human lungs. The spread of COVID-19 did not stop at humans but also reached animals, so it was necessary to limit it is spread and diagnose cases quickly by applying a quarantine to the infected people. |
|  | Social Impact / Customer Satisfaction | Social constraints in the COVID-19 pandemic force individuals to adapt to isolation and increase the prevalence of violence in the family, depression, anxiety, post-traumatic stress disorder. |
|  | Business Model (Revenue Model) | In its simplest form, a business model is how an organisation makes money.  All businesses need a business model to ensure their organisation is viable, and that all the elements that form a profitable business are in place and working cohesively together to make a profit.  A business model also needs to be flexible, to ensure that an organisation can respond to changes in the market and keep making money.  This need for organisational flexibility has been tested to the maximum over the past year, with COVID-19 disrupting the operations of almost every business worldwide. According to [research by McKinsey](https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever), companies responded to a range of COVID-19 related changes much more quickly than they ever thought possible before the crisis.  Most of these coronavirus-induced changes have involved increased digitization. In fact, [more than half of businesses are now investing in technology for competitive advantage](https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever) or refocusing their entire business around digital technologies. |
|  | Scalability of the Solution | When a business owner wants to improve their marketing and data management, they use data solutions to access and utilize data effectively. Businesses can change their marketing plans in an instant, and they can use scalable models to manage their business models.  Companies that were growing before the COVID-19 pandemic must cut back so that they can save money and survive. The tips below show how scalable resources and services are saving businesses.  **Data Management Solutions**  **Managing Customer Data**  **Scalable Material Ordering**  **Scalable Office Employee Work**  **Scaling Back Your Office Management Expenses** |