## Project Design Phase-I Proposed Solution

| Date         | 08 May 2023   |
|--------------|---|
| Team ID      | NM2023TMID19325   |
| Project Name |   |
|              | Cancer Vision: Advanced Breast Cancer Prediction with Deep Learning |

## **Proposed Solution:**

| S.No. | Parameter                                | Description   |
|-------|--|---|
| 1.    | Problem Statement (Problem to be solved) | As a doctor, one of the most pressing issues in breast cancer diagnosis is the need for accurate and timely detection of the disease. The current methods for breast cancer diagnosis, such as mammography and ultrasound, have limitations in terms of accuracy and invasiveness, which can lead to delays in diagnosis and treatment.   |
| 2.    | Idea / Solution description              | Cancer-Vision aims to address this issue by developing an advanced breast cancer prediction system using deep learning algorithms. The proposed system will be able to analyze mammography and ultrasound images in real-time and provide a probability score of the presence of breast cancer.  This technology has the potential to significantly improve the accuracy and efficiency of breast cancer diagnosis, allowing doctors to make more informed decisions and provide better care to their patients.   |
| 3.    | Novelty / Uniqueness                     | The novelty is incorporating clinical data such as patient history and genetic factors, Cancer-Vision can provide a more comprehensive analysis and personalized treatment plan for each patient.   |
| 4.    | Social Impact / Customer Satisfaction    | Cancer-Vision can potentially reduce the cost of breast cancer diagnosis, making it more accessible to a broader population. The system can analyze patient data quickly and accurately, reducing wait times and anxiety associated with the traditional diagnostic methods. By accurately predicting the presence of breast cancer, Cancer-Vision can facilitate early intervention and treatment, leading to better health outcomes and improved quality of life for patients. Cancer-Vision can accurately detect the presence of breast cancer even at an early stage, which can lead to early intervention and better treatment options. |
| 5.    | Business Model (Revenue Model)           | The revenue model for Cancer-vision could be a combination of product sales, licensing fees, maintenance and service fees, data analytic services, and partnerships with pharmaceutical companies.  |

| 6. | Scalability of the Solution | Cancer-vision will be designed with scalability in |
|----|-----------------------------|--|
|    |                             | mind, incorporating distributed computing          |
|    |                             | techniques, scalable deep learning algorithms, and |
|    |                             | the ability to incorporate new data sources over   |
|    |                             | time. This will allow the system to handle large   |
|    |                             | datasets efficiently and provide accurate          |
|    |                             | predictions at scale.                              |
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