**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 06 May 2023 |
| Team ID | NM2023TMID11250 |
| Project Name | Advanced breast Cancer prediction with deep learning |

**Proposed Solution Template:**

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Breast cancer is one of the main causes of cancer death worldwide. Early diagnostics significantly increases the chances of correct treatment and survival, but this process is tedious and often leads to a disagreement between pathologists. |
|  | Idea / Solution description | Using deep learning techniques.  we develop a deep learning algorithm that can accurately detect breast cancer on screening mammograms using an “end-to-end” training approach that efficiently leverages training datasets with either complete clinical annotation or only the cancer status (label) of the whole image. In this approach, lesion annotations are required only in the initial training stage, and subsequent stages require only image-level labels, eliminating the reliance on rarely available lesion annotations. |
|  | Novelty / Uniqueness | Help slow down the progress of the disease and reduce the mortality rate through appropriate therapeutic interventions at the right time. |
|  | Social Impact / Customer Satisfaction | This is supported by a worldwide effort to manufacture learning algorithms for understanding mammograms by reducing the number of false positives as an outcome. AI has increased the odds of identifying metastatic breast cancer in whole datas. |
|  | Scalability of the Solution | Increased in order |