# **Cost Estimation of Breast Cancer Detection Using ML**

Size and Scope: We categorize the breast cancer detection ML project as a "Medium" size project based on the complexity of the ML algorithms, data size, and the overall project scope.

Lines of Code (LOC):

Data preprocessing: Estimated 700 LOC

Feature extraction: Estimated 1000 LOC

Model development (e.g., neural network): Estimated 2500 LOC

Evaluation and testing: Estimated 800 LOC

Complexity Factors:

Medium complexity due to the use of sophisticated ML algorithms and moderately complex datasets.

Cost Drivers:

The development team consists of both experienced ML engineers and healthcare domain experts.

High software reliability is required for accurate medical diagnosis.

The database size is moderate for training and testing purposes.

There's some reuse of existing ML algorithms and frameworks, reducing development time.

Effort Estimation:

Based on the size estimation and complexity factors for a "Medium" project, COCOMO would calculate the effort in person-months or person-hours. Let’s assume an estimate of 15 person-months.

Risk Assessment and Contingency Planning:

Identified risks might include issues with dataset quality, regulatory compliance, and unexpected technical challenges. Contingency plans are developed, allocating additional resources for mitigating these risks.

Documentation and Validation:

The estimation process is documented, and stakeholders validate the estimates, ensuring alignment with project requirements and constraints.