BREAST CANCER DETECTION USING SONOGRAM

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HOW DOES AI TAKE PART IN HEALTHCARE ?

Artificial Intelligence (AI) is gaining traction in healthcare by providing solutions that enhance patient outcomes, accuracy, and efficiency. These are a few ways AI is advancing medical science.

- Drug Discovery: Accelerates drug development by analyzing biological data to identify potential compounds.
- Robotics-Assisted Surgery: Enhances surgical precision and dexterity for better outcomes.

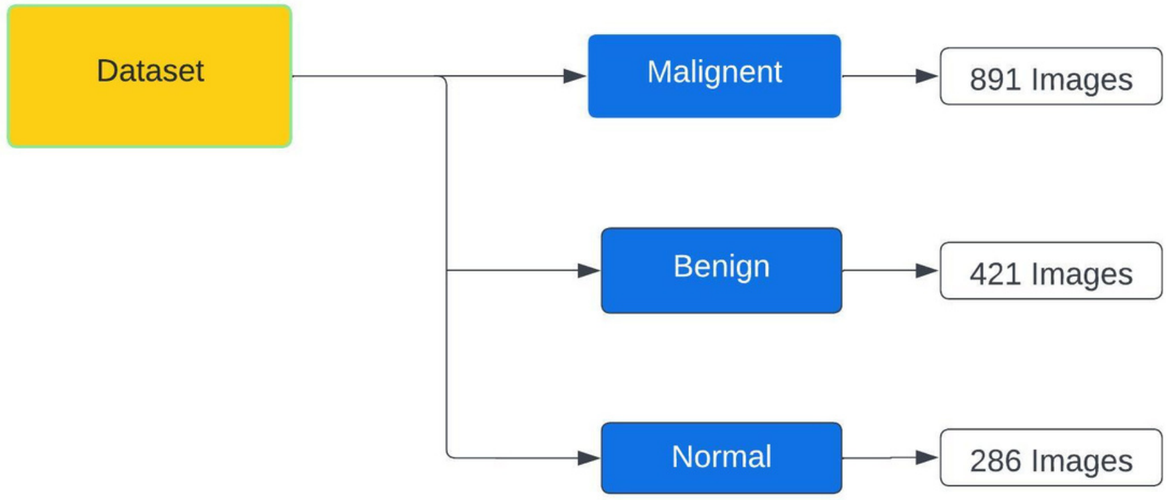
Problem Statement

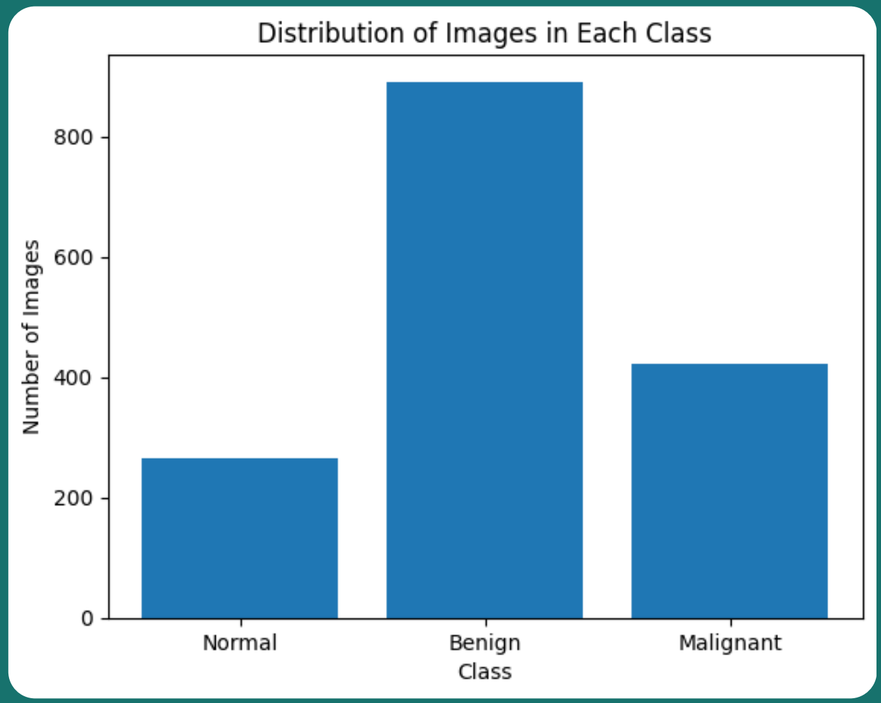
The objective is to create a breast cancer diagnosis system powered by Deep learning that is both highly accurate and readily available using sonar images. The model will quickly and precisely scan and analyze sonar images using advanced deep learning algorithms.

DATASET

Dataset Name : Breast Ultrasound Images Dataset

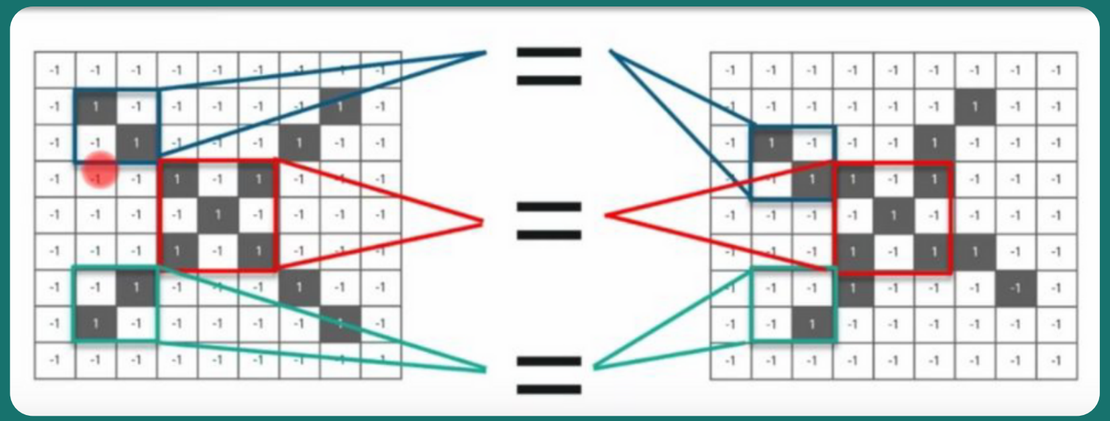
Link : https://www.kaggle.com/datasets/aryashah2k/breast-ultrasound-images-dataset

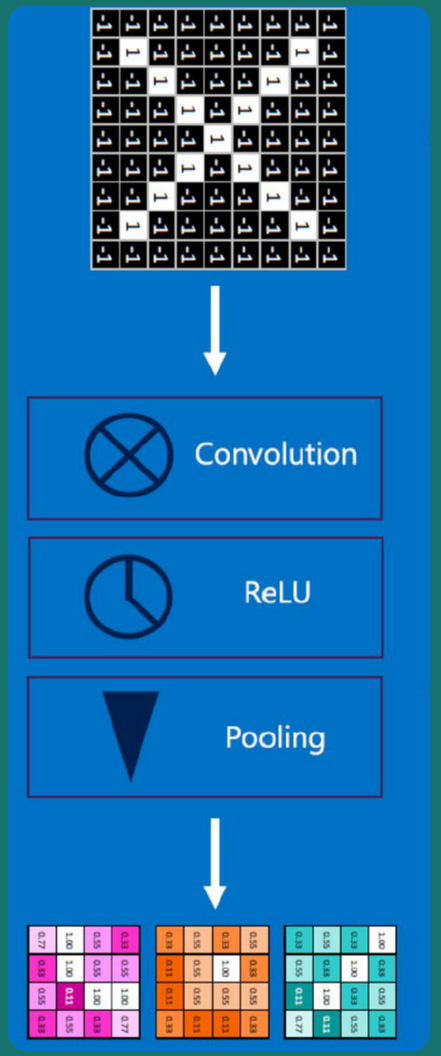




CNN (Convolutional Neural Network)

CNN compares the images piece by piece. The pieces that it looks for are called features. By finding rough feature matches, in roughly the same position in two images, CNN gets a lot better at seeing similarity than whole-image matching schemes.

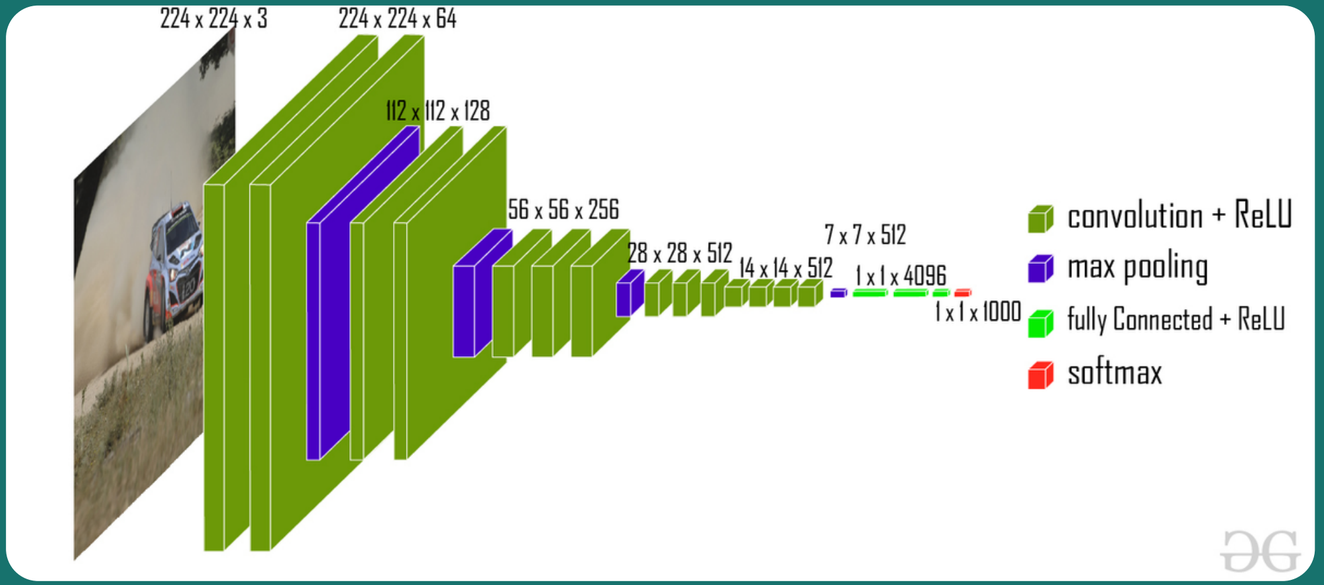


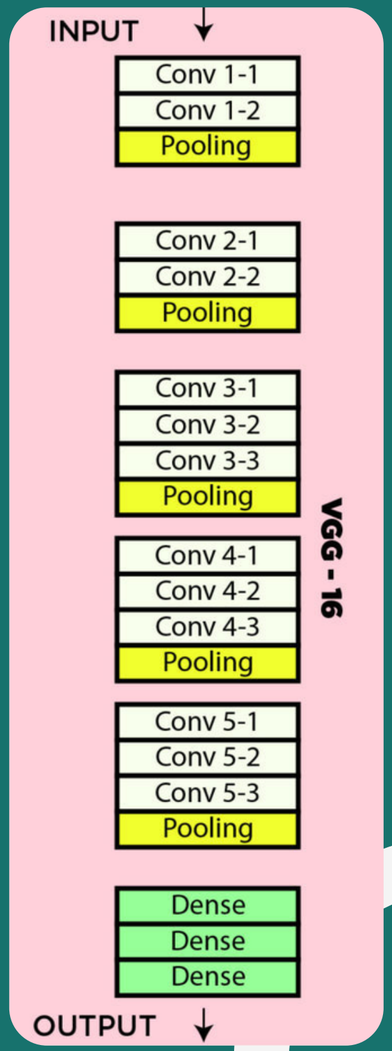


Implementation

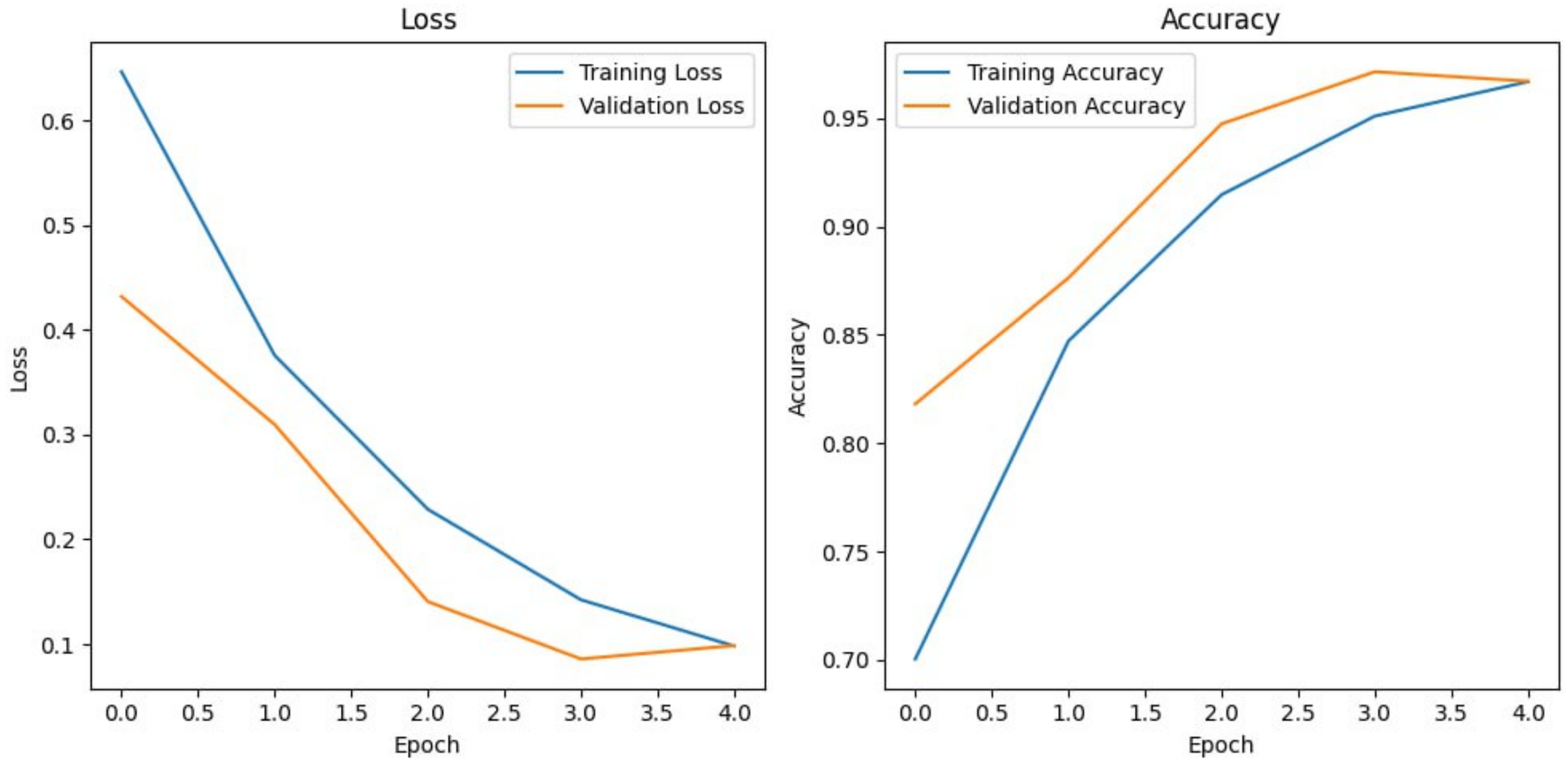
VGG-16

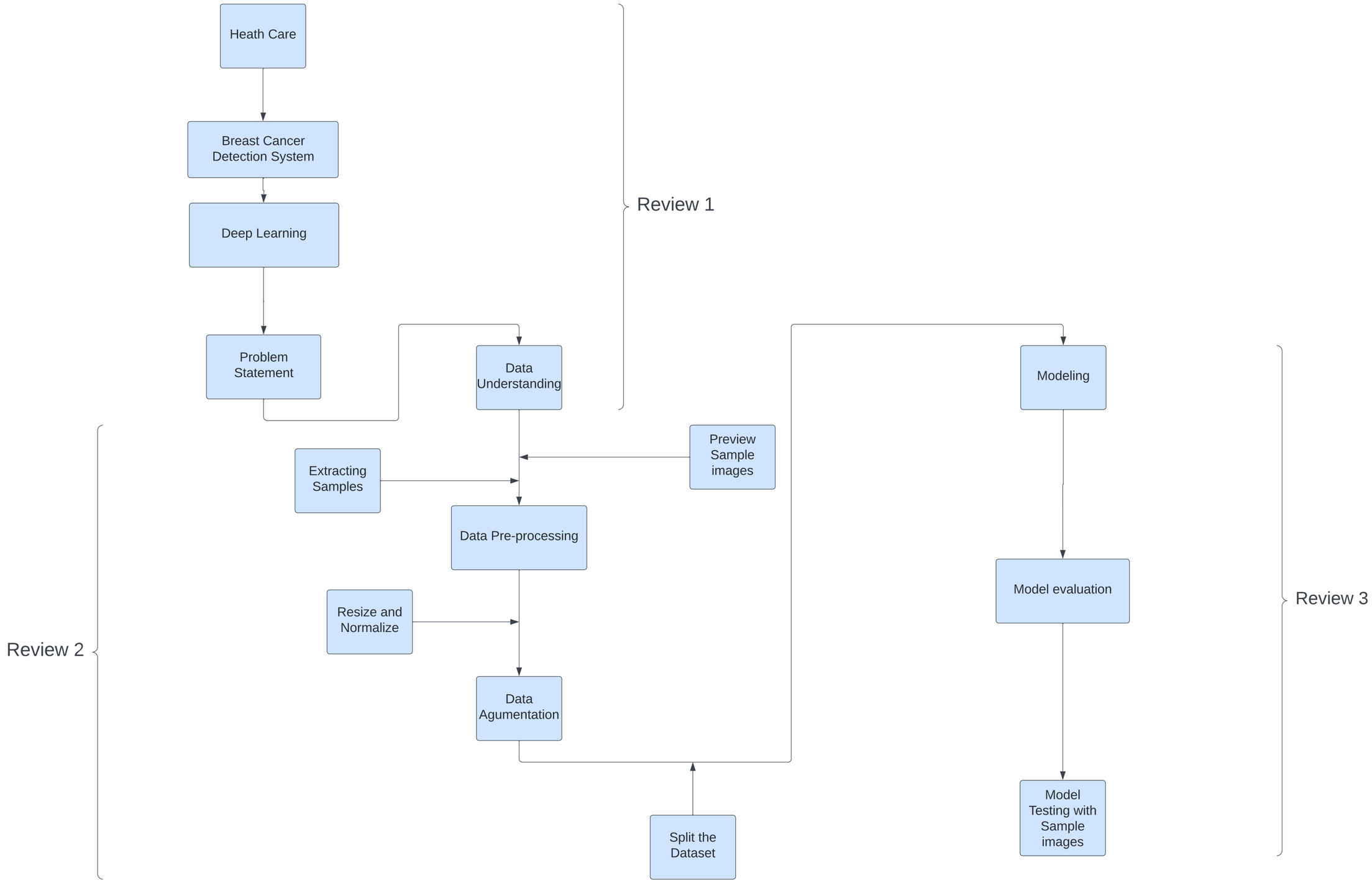
VGG16 is a deep neural network, meaning it has many layers that process information progressively. This depth allows it to learn complex features from images.





Accuracy and Loss




Heath Care
Breast Cancer Detection System
Deep Learning
Problem Statement
Data Understanding
Review 1
Extracting Samples
Preview Sample images
Data Pre-processing
Resize and Normalize
Data Agumentation
Split the Dataset
Review 2
Modeling
Model evaluation
Model Testing with Sample images
Review 3

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THANK YOU