TaskName	DescriptionOfTheTask
Breast_Cancer_Detection	Breast cancer detection involves a variety of methods to identify the presence of cancer in the breast at an early stage when treatment can be most effective.
Breast_Cancer_Risk_Prediction	Breast cancer risk prediction involves evaluating various factors that can influence a person's likelihood of developing breast cancer. These risk factors are often used to assess a person's risk profile and guide decisions about screening, preventive measures, and other medical interventions.
Mammographic_Report_Generation	Mammographic Report Generation is an essential process in breast cancer detection, where radiologists analyze mammograms (X-ray images of the breast) and document their findings. These reports provide crucial information for clinicians, helping them assess breast health, identify potential abnormalities, and make decisions regarding further diagnostic workups or treatments.
Breast_Cancer_Type_Classification	Breast Cancer Type Classification refers to the process of classifying the type of breast cancer based on features extracted from various sources such as medical imaging. The goal is to categorize cancer into various types, such as invasive or non-invasive, based on these features.
Breast_Tumor_Classification	Breast Tumor Classification refers to the process of classifying breast tumors into different categories based on their nature (benign or malignant).
Tumor_Localization	Tumor Localization refers to the process of identifying and pinpointing the exact location of a tumor within the body. This is a crucial step in diagnosing cancer, planning treatment strategies, and monitoring tumor progression or response to therapy
Breast_Density_Estimation	Breast density estimation refers to the process of assessing the density of breast tissue, typically using mammogram images. Breast density is an important factor in breast cancer risk assessment because dense breast tissue can make it harder to detect tumors on mammograms and is also associated with an increased risk of developing breast cancer.

Synthetic_Data_Generation	Synthetic data generation refers to the process of creating artificial datasets that mimic real-world data but are not directly collected from real-world events or observations. This generated data can be used for various applications, including training machine learning models, testing algorithms, conducting simulations, and augmenting real datasets in a way that preserves the statistical properties of the original data.
Image_Segmentation	Image segmentation is a critical task in computer vision that involves dividing an image into multiple segments or regions, each of which corresponds to a specific part of the image. The goal is to simplify or change the representation of an image, making it more meaningful and easier to analyze.
Multi_Modal_Learning	Multi-modal learning refers to the ability of a machine learning model to process and integrate data from multiple modalities or sources, such as images, text, audio, video, and more. Instead of relying on a single data type, multi-modal learning aims to combine these diverse types of data to create richer and more robust models that can perform more complex tasks by leveraging the complementary information provided by each modality.
Lesion_Localization	Lesion localization refers to the process of identifying and locating abnormal regions or lesions in medical images. Lesions can appear as tumors, cysts, or any other abnormal tissue that differs from the surrounding healthy tissue.
Anomaly_Detection	Anomaly detection, also known as outlier detection, refers to the process of identifying patterns or data points that deviate significantly from the expected behavior or normal distribution of the data.
Class_Balancing	Class balancing is a critical concept in machine learning and data science, particularly when dealing with imbalanced datasets, where the distribution of instances across classes is not uniform.

BIRADS_Category_Classification	BIRADS (Breast Imaging-Reporting and Data System) is a standardized system to categorize breast lesions identified in mammography, ultrasound, and magnetic resonance imaging (MRI). The BIRADS system helps radiologists classify breast abnormalities based on their appearance in imaging studies and provides a framework for communicating the likelihood of malignancy, guiding clinical decision-making and follow-up actions.