Integrated Situation

CHR is a referral hospital in Rwanda responsible for treating female breast cancer tumors, and records treated data. You are hired by the CHR, as a Machine Learning Engineer. You are tasked to take advantage of the public dataset and build a breast cancer tumor classifier application to facilitate doctors and nurses.

In this scenario, **you will develop a classification model to predict whether a breast cancer tumor is malignant** or benign based on various medical features and deploy the most accurate model to a responsive web application. You have access to an open dataset from the University of California, Irvine (UCI) Machine Learning Repository, which can be accessed through https://archive.ics.uci.edu/dataset/17/breast+cancer+wisconsin+diagnostic.

Your task is to create two different classification models that can accurately classify the diagnosis of breast cancer tumors as either malignant or benign, and to conduct a comparative analysis of the two models in terms of their performance. You will also develop a responsive web application to accommodate the best model. This deployed predictive model can aid healthcare professionals in making more informed decisions about patient treatment.