Name: RAHUL V **USN:1SV21IS025** **Branch: ISE**

Project -1: Personal Website URL (Github)

https://rahulv06.github.io/

Project -2: Docker Image URL (DockerHub)

https://hub.docker.com/u/rahulv06

Project -3: Data Science Project Details

Title of the Project:

Brain Tumor Detection

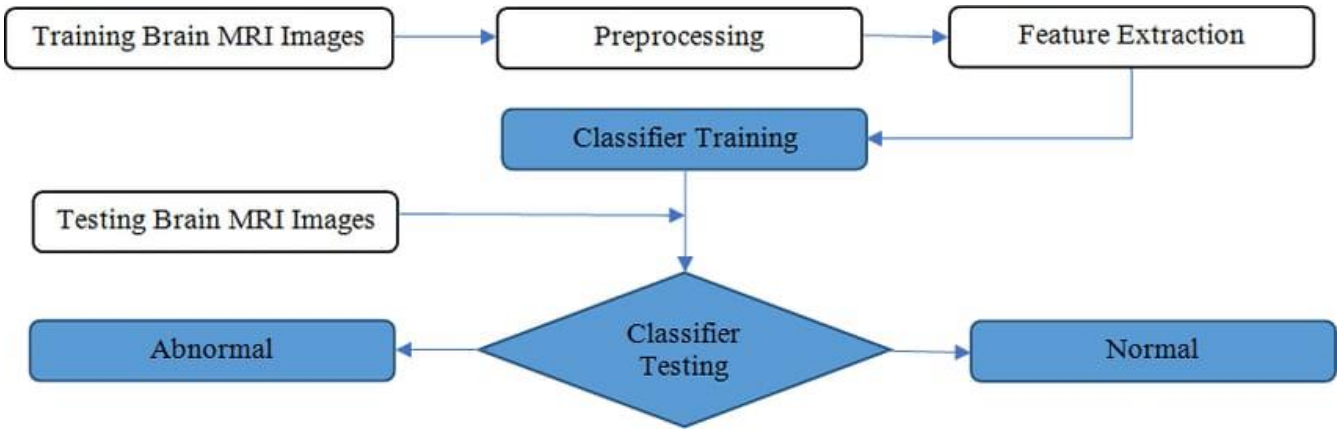
Project Description:

Brain Tumors are complex. There are a lot of abnormalities in the sizes and location of the brain tumor(s). This makes it really difficult for complete understanding of the nature of the tumor. Also, a professional Neurosurgeon is required for MRI analysis. Often times in developing countries the lack of skillful doctors and lack of knowledge about tumors makes it really challenging and time-consuming to generate reports from MRI'. So, an automated system on Cloud can solve this problem.

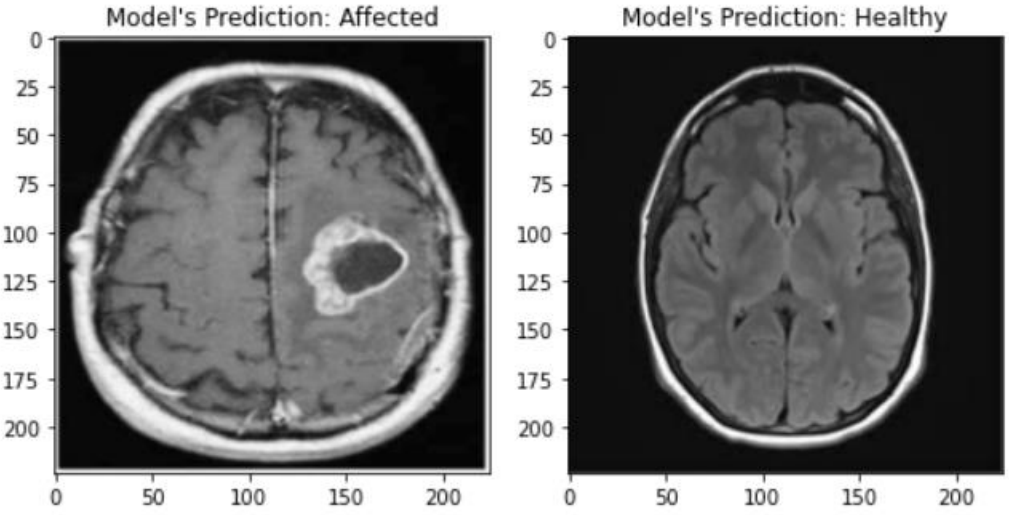
Algorithm Used:

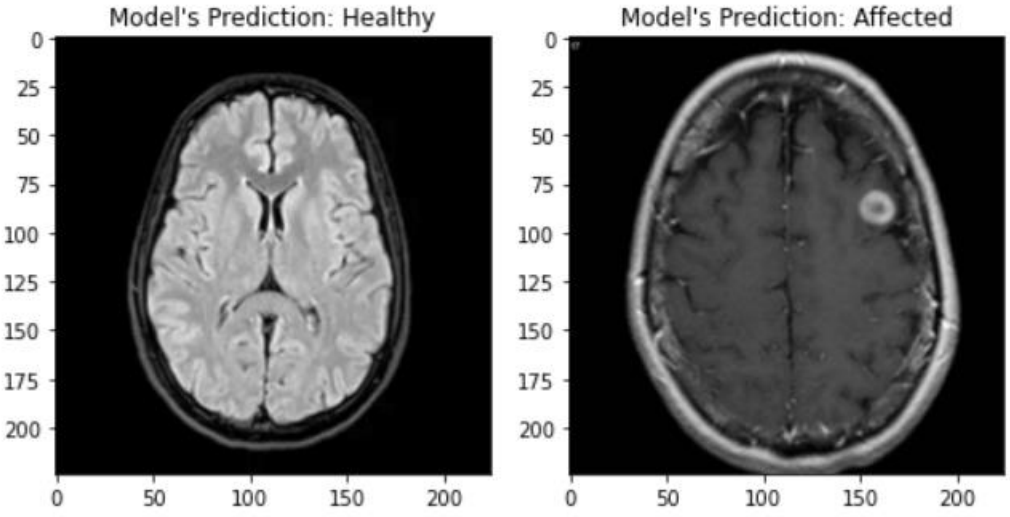
After preprocessing, the tumor region is segmented using the BWT algorithm. The features are extracted by using the GLCM algorithm. The genetic algorithm is used for selecting the features. Finally, the SVM Naïve Bayes, BOV-based SVM classifier, and CNN classify the image accurately.

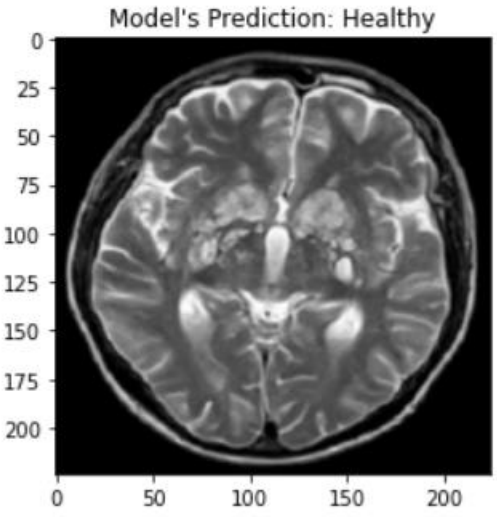
Flow Diagram:



Results Screenshots:




Model's Prediction: Healthy
Model's Prediction: Affected


Model's Prediction: Healthy