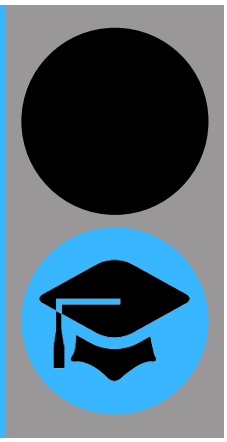

Task- 3(challenging)

Task: Breast Cancer Detection

Description:

Create a model using KNN classification that categorize breast tumors as maligant or benign based on features of dataset .

Requirements:

- Basic understanding of Machine learning model(KNN classifier).
- Jupyter notebook or any Python environment.

Steps to Follow:

1. **Data Set:**
- It is given to you with this task file.
2. **Data preprocessing:**
- Handle missing values and Split the dataset into training and testing sets for model evaluation.
3. **k-NN Algorithm:**

- Choose an appropriate value for 'k,' the number of nearest neighbors to consider.
- Apply the model into training dataset

4. **Model Evaluation:**

- Use the testing set to assess the model's accuracy, precision, recall, and F1 score.
- Adjust 'k' if needed for better results.

5. **Testing:** Test your model by giving different set of data.

What You'll Learn:

- Concept of KNN Classification Algorithm.
- Solving Classification and categorization problems.

Additional Suggestions(Optional):

- You can use your own data if you want.
- You can use image data for classifying breast cancer.
- Explore more algorithm to detect breast cancer.

Conclusion:

By working on a breast cancer project, you'll gain a deeper understanding of the intersection between machine learning and healthcare, contributing to advancements in early detection, treatment, and overall patient care.s