

## CMSC 176 Project 7

This is the dataset of 100 patients to implement the machine learning algorithm and thereby interpreting results

The data set consists of 100 observations and 10 variables (out of which 8 numeric variables and one categorical variable and is ID) which are as follows:

1. Id
  1. Radius
  2. Texture
  3. Perimeter
  4. Area
  5. Smoothness
  6. Compactness
  7. diagnosis\_result
  8. Symmetry
  9. Fractal dimension

**Diagnosis of prostate cancer is based on Type of tumour found in the medical test.**

### **Benign Tumour: Noncancerous**

If the cells are not cancerous, the tumor is benign. It won't invade nearby tissues or spread to other areas of the body (metastasize). A benign tumor is less worrisome unless it is pressing on nearby tissues, nerves, or blood vessels and causing damage.<sup>1</sup>

### **Malignant Tumour: Cancerous**

Malignant means that the tumor is made of cancer cells, and it can invade nearby tissues. Some cancer cells can move into the bloodstream or lymph nodes, where they can spread to other tissues within the body—this is called metastasis.

Now For Convenient Purpose Diagnosis Result in the Table Can be Changed to following:

M = '1' Which Indicates diagnosis of Prostate Cancer

B = '0' which Indicates patient doesn't have Prostate Cancer and not Harmful.