## Detect Thyroid Cancer Reoccurrence using patient data.

## Objective

Build a system that can predict if a Thyroid Cancer survivor can relapse(his or her cancer reoccurs)

## Dataset

This dataset contains data about thyroid checkups for people with a diagnosis and is a comprehensive collection of patient information, specifically focused on individuals diagnosed with cancer.

## Description of columns:

- Age: The age at the time of diagnosis or treatment.
- Gender: The gender of the patient (male or female).
- <u>Smoking</u>: Whether the patient is a smoker or not.
- <u>Hx Smoking:</u> Smoking history of the patient (e.g., whether they have ever smoked).
- Hx Radiotherapy: History of radiotherapy treatment for any condition.
- <u>Thyroid Function:</u> The status of thyroid function, possibly indicating if there are any abnormalities.
- Physical Examination: Findings from a physical examination of the patient.
- <u>Adenopathy:</u> Presence or absence of enlarged lymph nodes (adenopathy) in the neck region.
- <u>Pathology:</u> Specific type of thyroid cancer determined by the pathological examination of biopsy samples.
- <u>Focality:</u> Whether the cancer is unifocal (limited to one location) or multifocal (present in multiple locations).
- Risk: The risk category of the cancer based on various factors, such as tumor size, extent of spread, and histological type.
- <u>T</u>: Tumor classification based on its size and extent of invasion into nearby structures.
- N: Nodal classification indicating the involvement of lymph nodes.
- <u>M:</u> Metastasis classification indicating the presence or absence of distant metastases.
- <u>Stage</u>: The overall stage of the cancer, typically determined by combining T, N, and M classifications.
- Response: Response to treatment, indicating whether the cancer responded positively, negatively, or remained stable after treatment.
- Recurred: Has the cancer recurred after initial treatment.