

# Assignment

Getting friendly with TensorFlow !

## Scope

- Learning how to work with TensorFlow
- Solving a basic classification problem using TensorFlow

## To Do :

1. Understanding Tensorflow basics : Using TF data types, sessions, defining models, defining functions.
2. Solving the sonar problem :

The dataset contains sonar data and the last column contains the correct label for the particular row. The label zero corresponds to the sonar detecting a mine while the label 1 corresponds to the data detecting a normal rock.

The Dataset is available at :

<https://drive.google.com/file/d/1Q0ljje13-zpjtE6aonvW9TVO5CTp3pT-/view?usp=sharing>

- A. Divide the dataset into two parts : Testing and Training (20:80) and use any simple classification algorithm to classify sonar data into mine and non-mine data. Then use your trained model to check its accuracy on the test data. Use TensorFlow library to do all the above mentioned task
- B. Try to demonstrate your work using graphs and use TensorBoard for that.

## References :

TensorFlow Documentation : [https://www.tensorflow.org/api\\_docs/](https://www.tensorflow.org/api_docs/)