**Total Marks: 20** 

# **Assignment-1**

# **Data Mining**

#### **Instructions**

- 1. Do the code using python; it can be used in Jupyter notebook.
- 2. Create a Github private repo where all your assignments and projects would be stored. At an opportune time, you would be asked to share your repo with our evaluation team.
- 3. Your submission should be sufficiently original to be considered for evaluation.
- 4. Submissions would include source code, data availability at Github, and Google classroom submission of the markdown pdf (do not submit any other format on Google classroom).
- 5. You can use any library, no need to code from scratch.

### Submission date and time

April 25, 2021, by 6 PM.

## Please follow the steps below to complete your assignment:

- 1. You need to download 'breast cancer wisconsin' data using the library Scikit learn; ref is given below. [2]
- 2. Remove the missing/infinite values using the mean strategy if required. [3]
- 3. Visualize the data in 2-D scatter plot and write the inferences, How the data look like. [5]
- 4. Make a boxplot for each feature and highlight the outlier, if any, then remove the outlier, make again box plot to show the outlier effect and write the inferences. [5]
- 5. Normalized the data if required, and write a note for what, why and how you performed normalization.[5]

#### Ref:

1. <a href="https://scikit-learn.org/stable/modules/generated/sklearn.datasets.load\_breast\_cancer.html#sklearn\_datasets.html#sklearn\_datasets.ht

**Note:** References can be used only for learning purposes, not like copy-paste.