Assignment 1

Machine Learning (CS564)

Date: - **15-Aug-2021**   Deadline**: -22-Aug-2021**

Instructions:

1. **Coding must be done using python and you are not supposed to use already available libraries of clustering algorithms.**
2. All the assignments should be completed and uploaded before the deadline.
3. Markings will be based on the correctness and soundness of the outputs. Marks will be deducted in case of plagiarism.
4. Proper indentation and appropriate comments are mandatory.
5. You should zip all the required files and name the zip file as *roll_no*.**zip**, eg.

   1501cs11.zip.

6. Upload your assignment (**the zip file**) in the following link:
   https://www.dropbox.com/request/MfJMYJGLwmGkUUwTbBuR

Find the best possible clusters (as per your understanding) and print all the possible clusters with their data points on the provided dataset "BR_mod.csv" of breast cancer patients using

1) Kmeans
2) Kmedoid and
3) hierarchical agglomerative algorithms.

Note: There are some missing values in the dataset. So, fill these values using any of the missing value estimation technique and then apply clustering algorithms.