## Sumeet Sahu - 50367891. Report for Assignment 1:

## Steps:

- 1. Keras and Tensorflow libraries have been used as per instructions provided in CLASS as well as in slides.
- 2. Images have been uploaded in R.
- 3. Image data has been generated using the relevant libraries.
- 4. Data has been set to train data.
- 5. Resizing of the Data has been done accordingly on HIT AND TRAIL BASIS so that the .csv file doesn't get too much long/hard enough for R to execute.
- 6. Data frame has been created for those images from a 2D array.
- 7. Once this data frame has been created by collaborating the images, it was further prepared to get a .csv file.
- 8. Final data file has been created wherein the annotations requirement have been added as per instructions.
- 9. The final .csv file has been used further for Linear modelling and further analysis has been done.

## Linear model analysis:

- 1. Have been found that feature 3,4,7 have been the most relevant one's to fit the best linear model to given images and in the whole process.
- 2. Features have been taken as an average of 30 variables.
- Once we run the model we see that values show us that they are overfitted to the intercept range and have gone too far which makes most of values unsuitable for the data.
- 4. The \*\*\* have been seen to be more relevant one's and closet to best fit values.