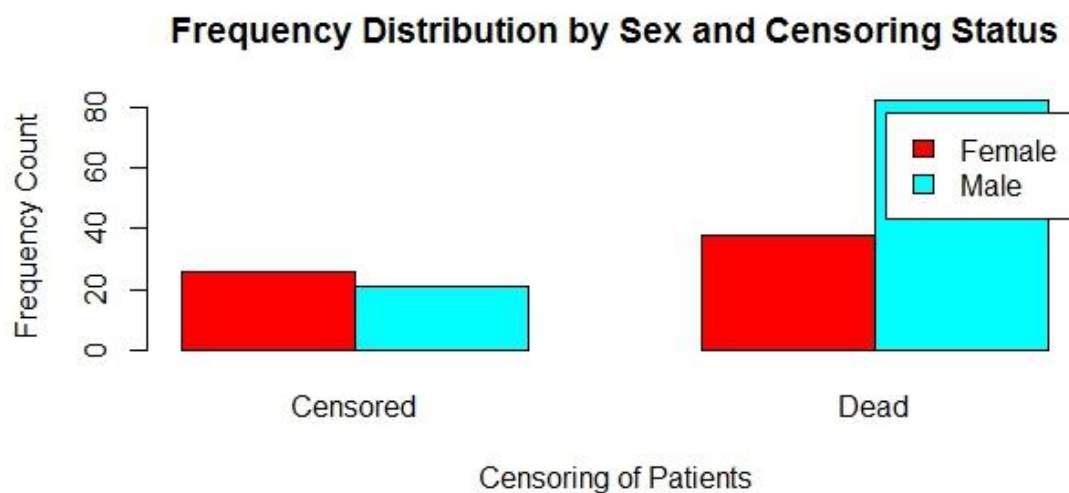**Data Visualization**

The first visualization that we have created is a frequency distribution bar chart to depict which gender is more affected by cancer. This histogram will depict gender frequency distribution against the two censoring statuses. This data visualization will help the researchers and the patients to learn more about how lung cancer affects a particular gender more.

The second visualization that we have created is a 3D pie chart to describe the percentage of lung cancer patients in different age ranges. This visualization will help the researchers to analyze the reasons why a particular age group has a higher percentage of lung cancer occurrences as compared to other age groups.
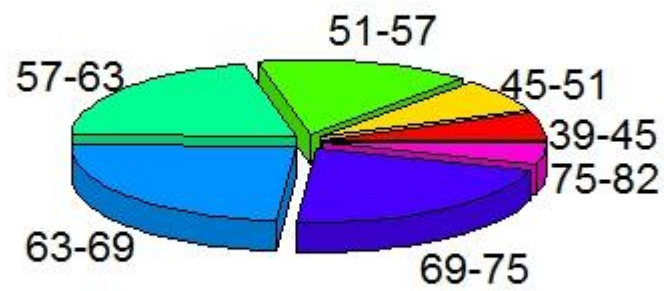
The third visualization that we have created is a 3D scatter plot showing the weight loss based on the calories that the patients consumed at meals and their survival time. This will help to monitor the patient's weight loss as compared to his meal calories intake and survival time left.

Lastly, we also created a box-plot for the Karnofsky performance score as rated by the patient for the different age groups and a box-plot for the Karnofsky performance score as rated by the physician for the different age groups. We have combined both these box plots and compared them. This will help to show how different age groups respond to the medicines and treatment provided to them and thus will help in further treatment.
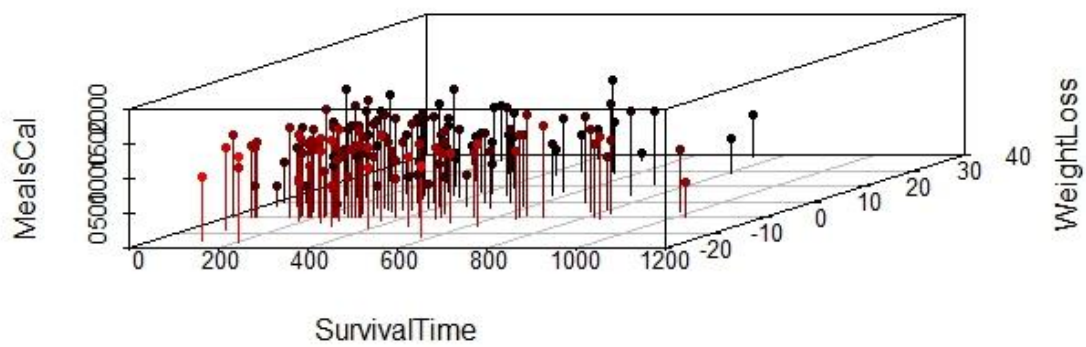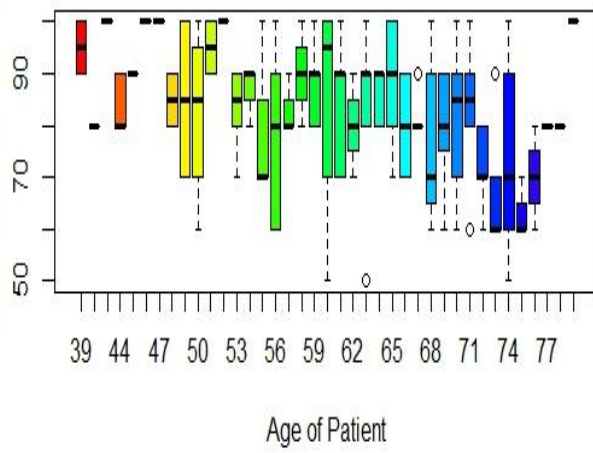
Visualization Screenshots

Pie Chart of Age Distribution
of Patients

51-57

57-63

45-51

39-45

75-82

63-69

69-75

Weight Loss By Survival Time and Meals Calories

MealsCal

WeightLoss

40

30

20

10

0

-10

-20

0   200   400   600   800   1000   1200

SurvivalTime

BoxPlot of Age (vs) Karnofsky Performance Score By Physician

Age of Patient

BoxPlot of Age (vs) Karnofsky Performance Score By Patient

Age of Patient