

##Code Author: Sweta Rauniyar

##Code Reviewer: Marisol Santa Cruz

###Date of review: 12/04/19

###Introduction

The code review I will be conducting today is for Sweta Rauniyar's project is called "A Profiling Method in the Early Detection of Illness." As we conversed about the topic and context Sweta informed me that her work started with concerns raised in the field of Bioinformatic. Her analysis relates to the study of genes and their levels of activity in producing proteins that may be linked with diseases.

###Issues

With a clear understanding of the projects foundation. I was able to look into some of the issues regarding Sweta's Project here I detected the clear and simplicity of her code and approach. Personally, I was unable to find any major issues with the code or the essayistic content. All materials were self explanatory.

####Methods

The data was taken from a public accessible source called the National Institute's (NCI's) Genomic Data Commons. The project consisted of python, machine learning processes, cluster analysis, an agglomerative hierarchical clustering algorithm among other details.

####Formatting/ Style

Overall, the formatting of the work presented was presented in such a way that it may be understood by a non-computer science major. For the visualization of the data set why choose hierarchical trees? Why not implement other forms of visualizations such as a scatter plot or a line graph? Explain how you narrowed your analysis to the modeled data set you are focusing on?

####Best Practices

An interesting spin to the project is the possibility of creating and implementing an informative website that can categorize diseases and other medical issues. Sweta is already looking into expanding her project further through this lens.

####Reliability

The data set accounted as reliable due to the fact that it was from Genomic Data Portal (GDP) which is accessible to everyone. Data set and code do not have any bugs that I can detect.

####Testability

Prior to working on the real dataset, it was intriguing to note the ways in which Sweta took a random dataset into her methods in order to analyze whether the results would be the same. Try after try, her findings concluded that both datasets in fact matched.