In this challenge, we are looking to assess your Python coding ability and data science skills. We'll be working on the following dataset, which includes measurements of breast cancer cells. The task is to predict for each cell, whether is it malignant or benign. Please follow the guidelines below.

Note: The features describe the characteristics of the cell nuclei present in the digitized image of a breast mass.

**Python Coding and Data Set**

* Load in the data file and the header file provided
* Comment on any steps you might take to evaluate or transform the dataset.
* Compute the mean and median smoothness and compactness for benign and malignant tumors - do they differ? Explain how you would identify this.
* Write a function to generate bootstrap samples of the data.

**Exploratory Analysis**

* Just based on exploratory analysis, identify some variables that are predictive of a malignant tumor.
* Display the relationship visually and comment about these explaining the relationship.

**Modeling**

* Build a model to predict the malignant tumors.
* Identify how you would control for overfitting.
* Evaluate the performance of each model.
* Identify the most important predictive variables. Briefly explain the factors that contributed to malignant vs benign tumor identification.
* Write a short summary of your analysis, explaining how your model works and how it performs.