**Project Progress Details**

1. Where we are now?

* Teammates all working on their own areas which are feature extraction, face image segmentation, sift, unbalanced label, haar cascade.

(1) Face image segmentation (mask) --- Jenifer

(2) sift --- Thomas

(3) unbalanced label --- Oxana

(4) Haar cascade ---- Yinzi

* We finish the first attempt on those techniques last week and try to make those better this week.
* Apply those techniques to our models to see is there any improvement.

1. What is complete?

* we finished loading the dataset, exploring the dataset, EDA, image processing
* We had built and explored at least 4 machine learning models for our UTK FACE DATASET. There are Random forests, CNN, SVM, Logistic Regression, and Gradient Boosting. All of them get certain prediction accuracy. We uploaded all the notebooks on Github.
* We studied and finish first attempting to work on the feature detection and feature extraction techniques which are face image mask, sift, haar cascade.
* we have explored our label components and find out some unbalance labels. we are working on it now.
* We built the Github cookiecutter frameworks
* We had five group meetings to talk about the project details and share the ideas and materials.

1. What is left to do?

* complete finish our techniques building ( Mask, haar cascade, sift, unbalanced labels)
* Implement the above techniques to all our models and to see which models work the best.
* Pick the best model and aggregate everything about that best model, sort the code and show the complete and whole picture for the best model in our presentation.
* prepare the paper for our project
* prepare for the presentation (ppt, graphs, etc)