In this week’s discussion board, the topic is software development measurements and metrics which makes me want to know more about the history and current situation of this topic. After reading many threads, I noticed many posts mentioning source lines of code(SLOC), so I decided to do some search about it and see how controversial it is. Then I realized, the selection of software metrics should be flexible, especially during the changing phases and in comparing different systems. Furthermore, I think software metrics is a relatively old concept, but there are some papers’ topics that use modern and popular technologies such as artificial intelligence and machine learning to help make software metrics selection. Therefore, I think this is also an interesting part to be elaborated and see if those technologies can aid the metrics selection in different software systems and maturity levels.

Here is an draft outline of the research report:

Title: Software metrics selection in different software systems and maturity levels

* Introduction
  + Reason about choosing this topic
* Background
  + Measurement and capability maturity model
* Software metrics selection in different systems
  + Software metrics used in software systems comparison
  + Cloud based and non-cloud based application/framework
* Software metrics selection in different maturity levels
  + Ideas and recommendations for different maturity levels
* Modern technologies that may aid software metrics selection
  + Artificial intelligence and machine learning
  + Data mining
* Conclusion
  + Summary about software metrics selection
  + The future about software metrics selection and modern technologies