Hello, this is group 5 and our project topic is ‘Optimizing qwerty keyboard by using Genetic algorithm’. This is basically the same topic with last year’s project and there are several researches about this. But after searching related works, we found that we could improve this with building different model, using different method. And actually we suggested many other topic and choose this on because we think this could be interesting project.

So about the keyboard, qwerty keyboard is most popular keyboard in the world and most of people are using this. But this is just the oldest keyboard, not best optimized keyboard for English. Every language has a frequent sequence and qwerty keyboard are not really reflecting that feature. For example, in case of English, like q alphabet a or w or u are appear right after q with high probability. But in qwerty keyboard, q and w and a are very close to each other. Like this, we can change the sequence of the keyboard and size of the key with considering the mutual information between the letters in the English words, we can make a faster and efficient keyboard.

So this is our approach. At first we will build a model for the keyboard fitness function. The model will consider several feature such as speed, accuracy, size of key and location of key. About the speed, we will analyze the English corpus and build the sequence model.