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I am a part of Project Group 11, Empty Coffee Cups. As from our group discussions we have come to a conclusion to design a game based on sorting algorithms. We have decided to do research on sorting algorithms and come up with our ideas and algorithms required for the project. This week I have researched on four major sorting techniques. They are Bubble Sort, Insertion Sort, Quick Sort and Selection Sort. I have researched on how these algorithms are performed and on what are they based on. I have started wring the code for these algorithms in java and uploaded them into them team’s GitHub repository. From the lab assignment this week, I have learnt process for unit testing in Junit for the programs which we compiled in BlueJ editor.

The value of Extreme Programming which I chose for this project is ‘Respect’. To maintain this value, we have respected each and every team members’ opinion during our meeting. We have decided to research individually this week and in the coming week we will sync up with the remaining team members. We will then divide the work among ourselves according to interest of each individual in the team.

As per my research, I have decided to work on these four algorithms. In the coming week we will decide which algorithms to use in our project. We are going to consolidate the research about every sorting algorithm from other team members and opt for the best ones.

In my research I have found out that,

Bubble sort algorithm is not suitable for large data sets as its average and worst case complexity is O(n^2) where n is no. of items. Same is the case with Insertion sort and Selection Sort algorithm. Whereas Quick Sort algorithm is quite efficient for large data sets as its average and worst case complexity is O(nlogn) where n is no. of items.