**ECE 368**

**Project-1**

**Milestone 1**

I am planning to approach this project the same way it has been laid out for us. I am going to focus on modularity, and will be working on one function at a time and making sure it can operate properly irrespective of the whole program.

Before I start working on any function, I plan to understand its functionality and the other inbuilt function that it uses in full. For the sorting algorithms themselves, I will first lay down a clearly designed algorithm and then implement them in code, which should make my job much easier, since I will be knowing what I have to do.

I am also going to focus on optimization of algorithms and am going to make sure that each job can be done in the minimum number of steps possible. For doing that, one of the things that I will surely be doing is using ‘slide’ as opposed to ‘swaps’, which would definitely reduce my running time by a constant factor. It would not affect the running time of the sorting algorithms by a huge factor, but the plan is to optimize in whatever way I can.

Once I am done with designing my algorithms and once I can get them to work, I will then again focus on optimization. Basically I will try and make sure that I have done each job in the most optimum way I can.

Finally, I will be testing my program as a whole. I will check whether or not all the functions are working properly in conjunction with each other. I will now go through the whole file sorting\_main.c and will work on increasing the readability of my code, for which I will mostly be focusing on indentation of the code, commenting of required lines for better understanding and meaningful identifier names.