Tabu algorithm is a meta heuristic search method by checking its immediate neighbors in the hope of finding an improved solution. It enhances the performance of local search by making it less complex. First it you pick a random point and set it to be the best solution and push the element to a list and mark it as the best candidate. Then set up a loop to keep looking for an optimal solution. In this loop, it will look for the best candidate, once the best candidate is found it shall be pushed to the list. Then we check if the list is full, if it is full we will remove the element that was added first. The loop will end once it has reached what the users has set as the stopping condition.

Genetic algorithm takes a hug space and searches through it for the best optimal solution. It will not necessary find the best solution based on speed it will look for the solution that is determined on the fitness criteria. GA begins with randomly generating a population of structures that encode a solution for a task. The population will improve bases on the three criteria’s which are selection, crossover, and mutation. First, it performs selection and duplicates structures with higher fitness. Second, crossover occurs where the components with good structures to output better structures. Third, mutation occurs where new structures which are similar to a current structure but is altered.

Design pattern: