Report

We implemented the Maximum matching algorithm for bipartite graph using algorithm discussed in class. We were able to observe that we are iterating through some of the same edges which are coming in the augmenting path of the outer unvisited node (alternating tree) of the path we have already visited. Therefore in a large graph where we have already visited an edge is coming in augmented path we have already traversed before.

A data structure is needed to visit the edges of the alternating tree we have not traversed so as to get more number of augmented paths in a single pass. The approach we were able to reach was to start with a vertex which had the maximum augmented path or to provide an iterator in the vertex class so we can start from the edge we left previously.

We were able to come to this conclusion by removing the break in over code.