In this assignment we basically had to optimize the joint angles using the appropriate constraints and thus we had to define a cost function to minimize. I chose a combination of both square acceleration and velocity square sum. I used the joint angle constraints on the boundary and joint velocities as zero. I further applied the joint angle constraints on the angles during the motion but then the total constraints were exceeding hence I did not include it in my final optimized solution. I used a bound on the time as well and plot the optimized joint angles, velocities, accelerations and jerks for both the coordinates separately along with the polynomial functions of the previous assignment. I observed that the optimized function looked smoother as it had a smooth jerk function just like a quintic joint angle trajectory, but it was way smoother the jerk also reached zero value for a large span of time unlike quintic polynomial where it kept on growing so it seems that the optimized path is way smoother than quintic polynomial.