Report: Dynamic Programming Assignment	Date:14.05.2023
Prepared By: Abdulkadir Öksüz..(2020510083)............	

1. Introduction: This report is prepared to explain Dynamic Programming assignment of Algorithm Analysis lecture (CME2204) in Dokuz Eylül University to lecturers. Homework mainly aims optimal solution (Dynamic programming) for given problem.

2. Project Description: Promoting specific number of players in demanded years to have minimum total plan cost.

3.Completed Parts: I have used tabular method to compare costs. Dimensions of table are excess number and year. Algorithm is based on finding minimum cost by comparing the demands of the year with excess number including the kumulative cost of previous year and writing the cost in related cells. I also holding the trace of each cell at the same time. By doing that we have initialized the DP table and track table. When program reaches the planned year DP method ends. From now on we are tracking back to make the plan. We are making it with recursive calls of Track table.

4. Uncompleted Parts: All the objectives are succesfully completed. There is nothing uncompleted.

5.Runtime Complexity:
$T(n) = n*j*(j/2) = O(n*j^2)$ where n is the year. J is the maksimum excess number of players from the demand of a year (We can find this number by checking the given player.salary.txt length).

6.Space Complexity:
Space complexity of DP table is $(n+1)*(j+1)$ where n is the year we planning, J is the maksimum excess number of players from the demand of a year (We can find this number by checking the given player.salary.txt length).

7. References:
Rsch.Asst. Ali Cüvitoğlu
https://debis.deu.edu.tr/akademiktr/index.php?cat=3&akod=20160304

Dokuz Eylül Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği.