THE MULTI – DIMENSIONAL KNAPSACK PROJECT

CSE2003 – Data Structures and Algorithms

PROF. SENDHIL KUMAR K.S

TEAM MEMBERS

1. Shivam Sinha – 19BCE0591
2. Aarush Bhat – 19BCE0564
3. Aditya Beri – 19BCE0312
4. Sachin Shukla – 17BEC0170

ABSTRACT

This project is taken up to show that dynamic programming is a useful technique of solving certain kind of problems. The multidimensional knapsack problem can be solved with a dynamic programming approach. When the solution can be recursively described in terms of partial solutions, we can store these partial solutions and reuse them as necessary (memorization).

Dynamic programming has algorithm that finds solutions to sub problems and stores them in memory for later use. It is more efficient than “bruteforce methods”, which solve the same sub problems over and over again.