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Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification

Utilization of Algorithms, Dynamic programming, Optimization

### INTRODUCTION TO DYNAMIC PROGRAMMING

- Dynamic programming is an algorithm design technique for **optimization problems**, often minimizing or maximizing.
- Programming refers to the use of **tables** (arrays) to construct a solution.
- In dynamic programming we usually **reduce time** by increasing the amount of space.
- The table is then used for finding the **optimal solution** to larger problems.
- Time is saved since each sub-problem is solved only once.
- In such problems there can be many possible solutions. Each solution has a value, and we wish to find a solution with the optimal (minimum or maximum) value.