**Types of Algorithms**

Here are 7 types of algorithms:

* Brute Force Algorithm
* Recursive Algorithm
* Dynamic Programming Algorithm
* Divide and Conquer Algorithm
* Greedy Algorithm
* Backtracking Algorithm
* Randomized Algorithm

Diagram

Description automatically generated

Brute Force

A brute force algorithm is essentially trying all possibilities until a result is found. It is the simplest and most basic algorithm. Moreover, these types of algorithms allow for the detection of the ideal or best solution, since they check all possible solutions.

Recursive

Recursion is the key to this type of algorithm. A problem is resolved by breaking it down into subproblems of a similar nature and repeating the process over and over until it is resolved with the help of a base condition.

Dynamic Programming Algorithm

Algorithms of this type are also known as memoization techniques. As a result, the thought is to keep track of the recently determined result to avoid calculating it over and over again.

Using Dynamic Programming, you can break up the unpredictable issue into smaller, more manageable subproblems and put the outcome aside for later. We can say that it remembers previous results and uses them to find new ones. it is the third main types of algorithms.

### Divide And Conquer Algorithm

With the Divide and Conquer algorithm, the aim is to tackle the issue in two sections, the first of which divides the problem into subproblems that are similar in nature. Second, we will approach the more modest issue autonomously and then add the combined outcome to complete our final response.

### Backtracking Algorithm

This type of algorithm seeks a steady solution to the issue by eliminating solutions that fail to meet the requirements of the issue at any moment. As an example, it is an algorithmic procedure for handling issues recursively by attempting to construct an answer steadily, eliminating solutions that fail to meet the criteria at any moment.

Algorithms

Every algorithm described here.

3Sum – Brute force is O(n^3)

4Sum – Brute force is O(n^4)