DAY -17, DAILY REPORT, 30 -11 -2021 (TUESDAY)

Today, I got a new experience. From waking up it gives me a positive vibe, and I prepared from the office and my first session was about what an algorithm is that refers to the sequential steps and processes that should be followed to solve a problem. There can be various kinds of algorithms devised to solve different problems in programming. And the types of algorithms are brute force algorithm, greedy algorithm, recursive algorithm, backtracking algorithm,divide and conquer algorithm,dynamic programming algorithm, and randomised algorithm. Introduction to algorithms is the step by step procedure for solving a problem. And algorithms are often used in many real life problems. In computer science, an algorithm has a special meaning, it is defined to have these features. It must have some data to operate on it. It must produce at least one result. It must terminate after finite numbers of steps. With the advent of computers, a variety of algorithms have been developed .It has sorting algorithms - used to arrange the data items in ascending or descending order. After that it has the searching algorithms - designing to search for a given item in a large data collection. And the compression algorithm means to reduce the size of data and program files. It is commonly used for compression of image, audio and video data. And fast fourier transforms are designed for digital signal processing (DSP). It is used for computers. An encoding algorithm used for encryption of data. And geometric algorithms used for identification of

geometric shapes. Pattern matching algorithm comparing images and shapes. An parsing algorithm was designed to identify different programming constructs. The classification of algorithms depending on the strategy for solving a particular problem, algorithms are classified as follows: it has an iterative algorithm - meaning it has certain steps that are repeated in loops until the goal is achieved. An example of an iterative algorithm is sorting of an array. The divide and conquer algorithm has given a problem fragmented into subproblems which are solved partially. Algorithm is terminated under further sub- division cannot be performed. Divide and conquer algorithms are frequently used in searching and sorting problems. Greedy algorithms are immediately available. The best solution at each step is to change 73 rupees, with a minimum number of currency notes, the immediate best solution be: one 50 rupees note, and two 10 rupees notes and one rupee note and one rupees note. It is useful for solving scheduling and graph theory.and back- tracking algorithm is for all possible solutions are explored until the end is reached and then the steps are traced back. These are useful in graph theory.two applications are depth first search and breadth first search. Backtracking algorithms are used frequently for braversing trees. Specifications of algorithms are generally expressed in human readable form. Two approaches are: natural language and pseudo code. Natural language has English words and phrases that can be used to express statements etc. that’s all for today. Thank you.