## **Computer Science Concepts: Week 9**



- **Algorithm:** A set of instructions that can be used repeatedly to solve a problem or complete a task.
- **Big O Notation:** Used in computer science when analyzing algorithms. A measure of how an algorithm runs as you increase the input size dramatically. Incorporates changes in processing time and memory used. This is often used to classify algorithms.
- **Data Compression:** reducing the number of bits needed to store or transmit data. There are a variety of techniques that can be used to do this.
- **Divide and Conquer: is** and algorithmic principle. It involves breaking the problem being addressed into smaller pieces, then solving the smaller pieces, and then combining to get the entire solution.
- **Run Length Coding:** is a simple and popular data compression algorithm. It is based on the idea to replace a long sequence of the same symbol by a shorter sequence.