***Applications of Stack***

**Application of Stack Data Structure:**

* Stack is used for evaluating expression with operands and operations.
* Matching tags in HTML and XML
* Undo function in any text editor.
* Infix to Postfix conversion.
* Stacks are used for [backtracking](https://www.geeksforgeeks.org/backtracking-introduction/)and parenthesis matching.
* Stacks are used for conversion of one arithmetic notation to another arithmetic notation.
* Stacks are useful for function calls, storing the activation records and deleting them after returning from the function. It is very useful in processing the function calls.
* Stacks help in reversing any set of data or strings.
* To manage recursion, stack data structure is used to account for the previous state of the recursion call.

**Application of Stack in real life:**

* CD/DVD stand.
* Stack of books in a book shop.
* Undo and Redo mechanism in text editors.
* The history of a web browser is stored in the form of a stack.
* Call logs, E-mails, and Google photos in any gallery are also stored in form of a stack.
* YouTube downloads and Notifications are also shown in LIFO format(the latest appears first ).

**Advantages of Stack:**

* Stack helps in managing data that follows the LIFO technique.
* Stacks are being used for systematic Memory Management.
* It is used in many virtual machines like JVM.
* When a function is called, the local variables and other function parameters are stored in the stack and automatically destroyed once returned from the function. Hence, efficient function management.
* Stacks are more secure and reliable as they do not get corrupted easily.
* Stack allows control over memory allocation and deallocation.
* Stack cleans up the objects automatically.
* Stacks are used to convert