

Tutorial 02

01. What is a stack?

A stack is an abstract data type that holds an ordered linear sequence of items. It follows the 'Last-In-First-Out' principle and allows insertion and deletion operations from one end of the stack data structure that is top.

02. Define push, pop, peak, is empty, size in stacks.

Push:- adds an element to the top of the stacks

Pop:- remove the top most element from the stacks

Peak:- To look at the object at the top of the stack without removing it from the stack.

IsEmpty:- checks whether the stack is empty

Size:- Sets the maximum number of bytes that the stack is allowed to use while executing a stylesheet or other compiled content.

03. Give 7 examples of stacks found in real life

A pile of books

A stack of dinner plates

Box of biscuits

A stack of money

A pile of folded clothes

A deck of cards

A stack of coins

04. How to find out that stack is empty in a program?

The stack is initialized to -1 . Then check is performed to determine if the stack is empty by comparing to -1 . As elements are added to the stacks, the position of top is updated. As soon as elements are popped or deleted, the top most elements is removed and the position of top is updated.