

Stacks

What is a stack?

- Last-in first-out data structure (LIFO)
- New objects are placed on top
- Removal restricted to top object
- Examples?

Stack ADT Operations

- **push(o)**: Insert o at top of stack
 - Input: Object; Output: None
- **pop()**: Remove top object; error if empty
 - Input: None; Output: Object removed
- **size()**: Return number of objects in stack
 - Input: None; Output: Integer
- **isEmpty()**: Return a boolean indicating stack empty
 - Input: None; Output: Boolean
- **top()**: Return top object without removing; error if empty
 - Input: None; Output: Object