

# Stacks – Scenario Implementations (C++ Group Assignment)

## Submission (one PDF per group)

Your single **PDF** must include:

- **Members** (names + student IDs)
- **Your solution** (key code snippets)
- **Your explanation** (design choices, edge cases, why your ops are enough)
- **Any diagrams/screenshots** (flow, sample runs, etc.)

## Scenario – Balanced Brackets Linter (best with Array Stack)

**Goal:** Given a string containing any chars plus `()[]{}` , decide valid/invalid and show where the first error occurs (1-based index).

### Implementations to submit:

1. `ArrayStack<char>` solution
2. `LinkedStack<char>` solution

### Spec

- Ignore non-bracket characters.
- A close must match the **last unmatched** open.

```
"()[]{}"      -> OK
"([{}])"      -> OK
"([])"         -> ERROR pos=3 reason=mismatch
"((("         -> ERROR pos=1 reason=unclosed
"())))"       -> ERROR pos=4 reason=extra-closing
"if(a[0] == '{')"
```