CSE 310 Online B2
Time: 40 minutes

Simplified LaTeX Syntax Parser

You will create a new `.l` file (not the one from your offline lab) to validate the structure of a simplified LaTeX document. Your task is to ensure that LaTeX-style commands are correctly formatted and that their arguments are properly enclosed within braces {}.

Supported Commands

- `\textbf, \textit, \section`

Requirements:

- Each command must be followed by a {...} block.
- The braces {} must be properly matched and nested if needed.
- Text inside braces should be ignored.
- Any unmatched { or } or a command without a block should be reported as an error.
- Any unsupported command (`\foo`) is invalid.
- Use states to track when you're inside a brace block.
- If you need to use a stack, download this from here before the internet is turned off.

Sample I/O:

```
Input: \textbf{Hello \textit{world}}
Output: Valid LaTeX syntax

Input: \section{Intro
Output: Error: unmatched {

Input: \textit Hello
Output: Error: command not followed by brace block

Input: \foo{bar}
Output: Error: unsupported command
```

Marks Distribution

- Detects and validates supported commands: 3
- Manages and tracks nested {} using states or counters: 4
- Proper error reporting for unmatched or missing braces: 3

Submit only your 2105ABC.l file, nothing else.