Assume two threads, T1 and T2.

1. T1 calls push() when $top = SIZE - 1$. While T1 executes, it is de-scheduled after executing the instruction "if ($top < SIZE$)".
   - Since $top < SIZE$ is true, T1 has entered the if condition.
2. Then T2 is scheduled, which also calls push(), but T2 is de-scheduled after returning from push(). In this case $top = SIZE$
3. Once T1 is re-scheduled, $top < SIZE$ is false, nonetheless T1 executes $stack[top] = item$;

```
push(item) {
  if (top < SIZE) {
    stack[top] = item;
    top++;
  }
  else ERROR
}
```