multithreaded/stack.h

```
 1  /*
 2  A dynamic stack holding strings
 3  */
 4
 5  #include <stdio.h>
 6  #include <string.h>
 7  #include <stdlib.h>
 8  #include <stdbool.h>
 9
10  typedef struct stack
11  {
12      // max capacity of the stack
13      size_t size;
14      // position of the last item pushed onto the stack
15      size_t pos;
16      // memory for stack
17      char **items;
18  } STACK;
19
20  #define STACK_RESIZE_FACTOR 2
21
22  int init_stack(STACK *p, size_t stack_size);
23  bool is_full_stack(STACK *p);
24  bool is_empty_stack(STACK *p);
25  int push_stack(STACK *p, char *item);
26  int pop_stack(STACK *p, char **p_item);
27  int resize_stack(STACK *p);
28  size_t num_elements_stack(STACK *p);
29  int cleanup_stack(STACK *p);
```