

THREAD

Verificare se
le stringhe in
input e' palindroma

```
#include <pthread.h> #include <string.h>
#include <stdio.h>
#include <unistd.h>
```

```
struct print_params {
    char word word[256];
    int position;
};
```

```
int main() {
```

```
    pthread_t thread1_id;
    pthread_t thread2_id;
```

} due thread perché uno
verifica la prima metà
della stringa e l'altro la
seconda metà

```
    char* thread1_returnValue;
    char* thread2_returnValue;
```

] VACUO DEI THREAD
→ 0, errors

```
    struct print_params thread1_args;
    struct print_params thread2_args;
```

Passare ai Thread gli argomenti.

```
    char string[] = "osso";
    int centro = (int) (strlen(string)) / 2;
```

```
    thread1_args.word = string;
    thread2_args.word = string;
    thread1_args.position = centro;
    thread2_args.position = centro + 1;
```

```
    pthread_create(&thread1_id, NULL, &print_string_1, &thread1_args);
    pthread_create(&thread2_id, NULL, &print_string_2, &thread2_args);
```

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VBNI POG-LIO

```
{ pthread_join (thread1.id, (void **) &thread1_return_value);  
pthread_join (thread2.id, (void **) &thread2_return_value);
```

```
if (thread1_return_value == thread2_return_value) {  
    printf("La stringa è palindroma");
```

```
} else {
```

```
    printf("La stringa non è palindroma");
```

```
}
```

```
}
```

```
void* print_string_1 (void* parameters) {
```

```
    struct print_params* pp = (struct print_params*) parameters;
```

```
    char buffer[100];
```

```
    for (int i = 0; i < pp->position; i++) {
```

```
        buffer[i] = pp->word[i];
```

Buffer → stringa che ritorna il word

```
    }  
    return (void*) &buffer;
```

```
}
```

```
void* print_string_2 (void* parameters) {
```

```
int c = 0; struct print_params* pp = (struct print_params*) parameters;
```

CF

```
char buffer[sizeof(pp->word) - pp->position + 1];
```

```
for (int i = sizeof(pp->word) - pp->position; i > 0; i--) {
```

```
    buffer[i] = pp->word[i];
```

```
    return (void*) &buffer;
```

```
}
```