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30. Write C programs to demonstrate the following thread related concepts.

Aim: To demonstrate creating and terminating threads using `pthread` library.

Algorithm:

1. Include the necessary libraries.
2. Define a thread function.
3. Create threads using `pthread_create`.
4. Wait for the thread to complete using `pthread_join`.
5. Terminate the thread.

Code:

```
#include <pthread.h>
```

```
#include <stdio.h>
```

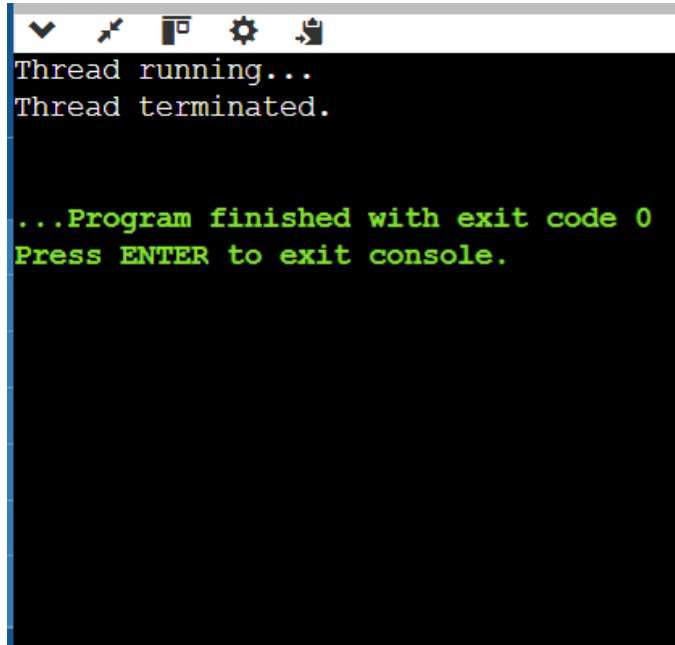
```
#include <stdlib.h>
```

```
void* thread_function(void* arg) {  
    printf("Thread running...\n");  
    return NULL;  
}
```

```
int main() {  
    pthread_t thread;  
    pthread_create(&thread, NULL, thread_function, NULL);  
    pthread_join(thread, NULL);  
    printf("Thread terminated.\n");  
    return 0;  
}
```

```
}
```

Output:

A screenshot of a console window with a dark background and a light gray title bar. The title bar contains five icons: a checkmark, a cursor, a window, a gear, and a document. The console output shows the text "Thread running..." followed by "Thread terminated." on the next line. After a blank line, the text "...Program finished with exit code 0" and "Press ENTER to exit console." is displayed in a green monospace font.

```
Thread running...  
Thread terminated.  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```