C++ coding assessment

This assessment is designed to gain further insight into your problem solving, design, and coding skills. We are looking for a strong competency in C/C++ cross-platform and kernel development. Please treat this as an opportunity to show your skills in these areas and demonstrate approaches and design techniques you prefer.

Task – kernel programming

Create a simple kernel module for Linux & Windows that can accept a string from the user-space application and then return the string in reverse.

For example, it gets “regal” and it returns “lager”.

The end result should consist of these components:

- Kernel module itself.
- C++ application to send a string to the module and read the end result from it.
- A script/program that loads the module into the kernel and removes it. It can also be done from the application, in which case, the application has to load the module before using it and unload the module after the use.

Application should read a string from a file that is specified via command line by the user. The string that is returned from the driver must be printed out to the console (stdout).

All necessary scripts and instructions on how to build and run the module and the application must be provided.