**National College of Ireland**

Higher Diploma in Science in Computing

**Distributed Systems**

**Terminal Based Assignment Assessment**

**(TABA)**

Saturday 4th May, 09:00 am to Tuesday 8th May, 23:55 pm

**Lecture: Mark Cudden**

Repository:

<https://github.com/sergio-oliveira-br/distsys>

Sergio Vinicio da Silva Oliveira

[**x23170981@student.ncirl.ie**](mailto:x23170981@student.ncirl.ie)

**1. Consider that you are designing a "Product Management" system that supports at least four operations.**

* **Explain and differentiate between the four kinds of service methods supported in gRPC.**
* **Include appropriate proto file definitions and sample code in your explanations.**
* **How would each type of method be used?**
* **How would these methods be defined in the proto file?**
* **What would the corresponding code look like?**

To apply the concepts presented in the classroom, using the idea of a smart home as a basis, I chose to approach the four gRPC services. Also, in an attempt to improve and reinforce my concepts in gRPC services, and assuming that practice leads to perfection, more than one version was built to explore the Java Swing and JavaFX topics.

The first two versions differ only in the graphical presentation, where one addresses command line concepts, and the second addresses the GUI graphical user interface through the Java Swing features.

**Please consider the third version as the main one to be evaluated. It includes GUI addressing JavaFX.**