Unable to change code from C++ to C Sharp for the following reasons:

* There are more than 4000 lines of code with minimal comments explaining what the code is doing.
* 150 hours per person so 150 x 4 = 600 hours in one semester - not enough time to upskill even more AND build on the code simultaneously - portofolio, reflective report, poster etc = too much to do, so little time

Solution:

* Meet with the client and explain the situation.
* Provide clients with new features instead.

Objective:

The main objective of this project is to build software to support more than four anchor points and thus, enhance indoor positioning mechanisms through the use of a technology known as Ultra Wideband. Ultra Wideband is ​a short-range, wireless communication protocol that – like Bluetooth or Wi-Fi – uses radio waves, except unlike Bluetooth or Wi-Fi, it differs substantially in that it operates at a very ​*high frequency.​ ​*By achieving this main objective of having more than 4 anchor points, we can work towards accomplishing further functional requirements listed below. Essentially, once there is software built to support more than 4 anchor points, we can expand the surroundings to sample that of a supermarket. As a result, we can trace and locate all tags but in a larger grid.

**Functional Requirements ​**

1. Must have more than 4 anchor points for a wider grid range to detect position of tags
2. Must have 0-200 tags as it could range from 0-200 trolleys in a supermarket
3. Must run without any bugs
4. Must send notification of exact location via system software
5. The system shall only allow authorized personnel to view data on tag locations
6. System shall be able to retain all information of tag locations constantly
7. Any major changes on the system must be logged and recorded

**Non-Functional Requirements ​**:

1. Will retain the exact location at all times to maintain the 2 metre distance
2. System must be able to support more 4 to 8 anchor points for future growth
3. Layout of the area shall be able to support movement of tags

SCOPE and OBJECTIVES

1. System programming shall be able to support different platforms.
2. System shall be able to run with the new implemented language “C#”

Changing this requirement

1. System shall be able to accommodate a wide area for up to 8 anchor points
2. System shall be able to identify tag locations in less than 3 seconds
3. System must function 99% of the time
4. System security shall meet HIPAA requirements
5. Background colour for all interfaces shall be to support colour blindness