Work Assignment - C Project

Task Description

Use the NRF52840-DONGLE to implement a scanning tool that counts the number of unique scooters it sees using bluetooth. The tool should present the results of the scan, preferably on a PC.

Each scooter advertises the following information over BLE every X seconds:

- Device Name (Static Field: Voi_Scooter_IoT) -
6 byte MAC address

Development Kit Provided: Nordic Semiconductor ASA NRF52840-DONGLE

Technical Requirements:

- The solution should include git history - The results of the scan should include the number of unique scooters detected. - Use the button on the NRF52840-DONGLE to initiate and terminate the scan, i.e. click

to start the scan, click to stop the scan and publish the results. - Exception Handling: The scan should terminate if 50 (or more) scooters are detected

and publish the results. - Optional: Use the LED to indicate if the scanning is in progress. Blink every 1 second

during the scan. Turn off the LED after the scan is complete. - The end project compiles without any errors. - The solution is delivered via a link to the repository. - The NRF52840-DONGLE is returned to Voi.

Time Duration: 1 Week **Contact Person**: Nida

Syed (nida.syed@voiapp.io)

Notes:

- You are encouraged to explore the possibility of using the USB interface on the dongle to send information to a PC. - Work on the assignment as naturally as you can, with workflow and coding guidelines you would follow at a regular task at a workplace. - Feel free to get creative and explore multiple ways to implement the solution. - Useful links:
  - nRF52840 - Nordic Semiconductor - nRF52840 Dongle - Nordic Tools and Downloads - Nordic Info Centre