The communication protocol between smartphone and NRF52

NOTE:

1. The smartphone must subscribe to receive notifications from the NRF52.

Functions

1. Create User

This function is used to create a new user. It must be called when registering a new tag.to call this function we send an array of 10bytes to the NRF52

B0	B1	B2	B3	B4	B5	B6	B7	B8	B9

B0 = 0x01,

This tells the controller that we want to create a new user.

B1 - B8 will be the 8-byte address of the tag

This is the address of the tag which will be mapped to this user.

B9 = 0

Left as 0, for future updates.

When the controller has received this data, it will process it and return a 4-byte identifier (uint32_t), which will be used to identify this user. All messages for this user will be sent with this identifier.
The controller will return 0 if an error occurred.

2. Set reminder

This function sets the reminder of a user. Each user has space for 4 reminders in the controller. To call this function we send an array of bytes to the controller

B0	B1 - B4	B5	B6	B7 - B27

B0 = 0x02

This tells the controller that we want to set reminder value.

B1 - B4 = unique identifier

This is the unique identifier for the user, which was returned when we created the user.

B5 = reminder-index

This is the reminder we want to set. Each user has 4 possible slots for reminders, so this value will range from 0 - 3

B6 = data length

This is the length of the reminder data we are setting.

Note: the length must not exceed 20 characters.

B7 - B27 = reminder data

This is the data which will be set as the reminder and be displayed when triggered.

After processing this request, the controller will return 0x00 00 00 00 (uint32_t) if successful or 0x00 00 00 01, if an error occured.