**3-2 Milestone Two**

The UART\_DATA\_BINARY macro is used to set the data mode of the UART to binary. In this mode, data bytes are sent and received as raw binary data, without any processing. This is opposed to text mode, where data might be interpreted or modified, for instance, converting newline characters to carriage return-newline sequences.

The UART\_RETURN\_FULL macro affects how the UART driver returns data to the application when reading. This macro typically means that the UART\_read function will wait until the buffer is full before returning to the application. It ensures that the read operation returns with the full data that you have specified you want to read, which can be important for synchronization in communication protocols.

To write 10 characters out of the UART, you would use the UART\_write function provided by the TI Driver library. You would need to pass a buffer containing the data you want to write and specify the length as 10. Here's a prototype call for writing 10 characters:

char dataToWrite[10] = {/\*...\*/}; // Data array

size\_t bytesWritten;

UART\_write(uart, dataToWrite, 10, &bytesWritten);

To turn off LED 0, you would use the GPIO\_write function from the GPIO driver, specifying the LED's corresponding GPIO pin identifier and setting the value to turn off the LED. For example:

GPIO\_write(CONFIG\_GPIO\_LED\_0, CONFIG\_GPIO\_LED\_OFF);

The CONFIG\_GPIO\_LED\_0 would be defined in your board's configuration file and CONFIG\_GPIO\_LED\_OFF is the macro that represents the "off" state for the LED, typically 0.

The UART baud rate is specified in UART configuration settings, usually as part of the UART initialization code. It defines the speed of serial communication -- how many symbols (usually bits) are transmitted per second. In our case it is 115200.