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Question 1]

1. **What does "InitializeSerialConsole()" do? In said function, what is "cbufRx" and "cbufTx"?**

The function initializes serial console parameters in order to establish serial port connection between devices for receival and transitions of data. Inside the function, it initializes circular buffers for Rx and Tx. It configures universal synchronous/ahfjkdsynchronous receiver/transmitter protocol along with callbacks function. The function also calls read buffer function for internal synchronous read.

These are opaque circular buffer structure types. The structure cbufRx is used as circular buffer handler for receiving characters from the serial interface. Whereas cbuTx is used as circular buffer handler for transmitting characters from the Serial interface.

2. **How are "cbufRx" and "cbufTx" initialized? Where is the library that defines them (please tell the *C file they come from).**

The cbufRx and cbufTx is are initialized in SerialConsole.c file. However, the structure type is defined in circular buffer library which is circular_buffer.c file.

3. **Where are the character arrays where the RX and TX characters are being stored on at the end?**

The RX and TX characters are being stored at the end in characters arrays rxCharacterBuffer[ ] and txCharacterBuffer[ ]. These are defined in SerialConsole.c file.

4. **Please draw a diagram that explain the program flow for UART reception – starting at the user typing a character and ending on how that characters ends up in the circular buffer "cbufRx". Please make reference to specific functions in the starter code.**
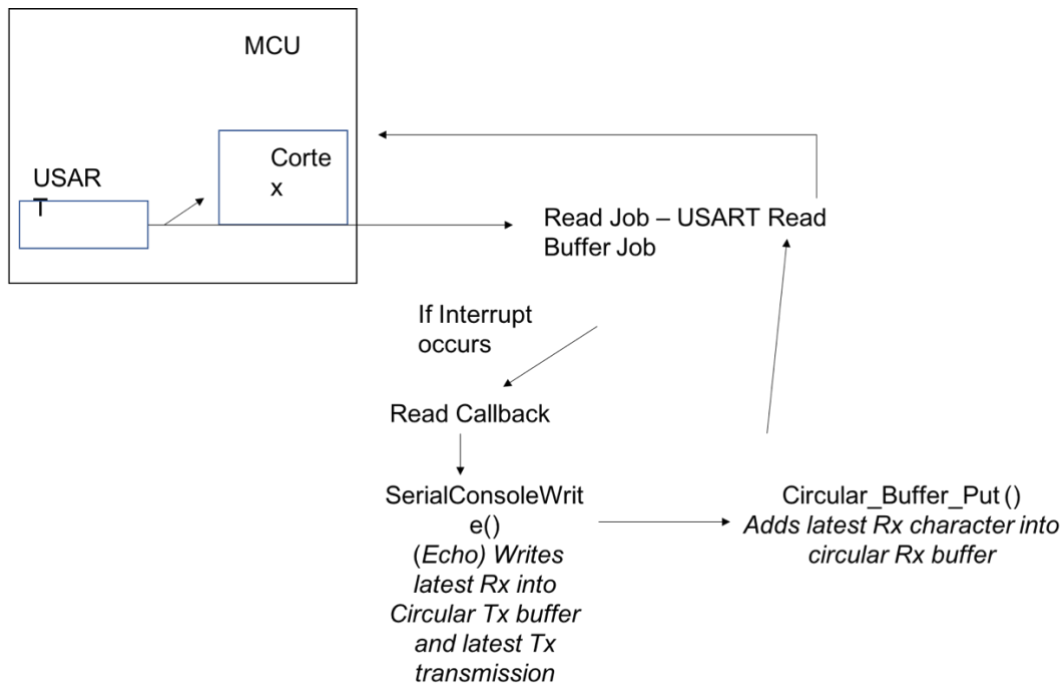
5. Please draw a diagram that explain the program flow for the UART transmission – Starting from a string added by the program to the circular buffer "cbufTx" and ending on characters being shown on the screen of a PC (On Teraterm, for example). Please make reference to specific functions in the starter code.
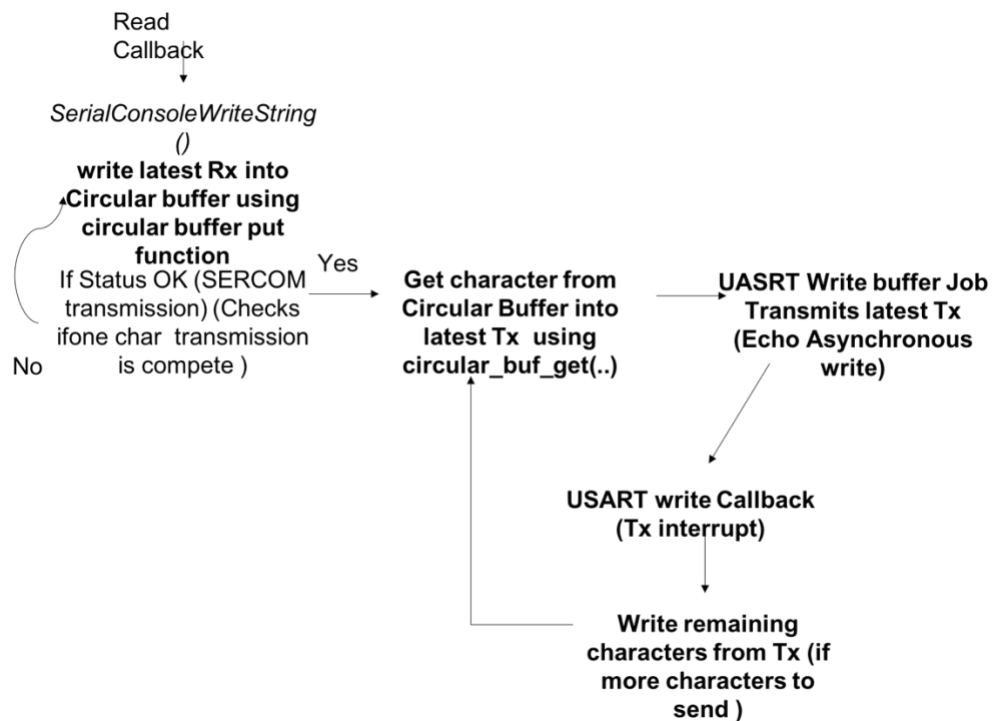
Question 2 and 3 : The Project file is attached with submission