

### **UART:**

([https://bitbucket.org/dineshravilla/sht15\\_pic18f4520/src/7b7d85575607bb0c7ec6262ea130bfaa8a9106f3/lib/uart\\_and\\_sw\\_uart/?at=master](https://bitbucket.org/dineshravilla/sht15_pic18f4520/src/7b7d85575607bb0c7ec6262ea130bfaa8a9106f3/lib/uart_and_sw_uart/?at=master))

Receive interrupt flag, RCIF – DataRdyUSART();

Transmit interrupt flag, TRMT – BusyUSART();

putsUSART(“arg”) – used to display string

### **Software UART:**

([https://bitbucket.org/dineshravilla/sht15\\_pic18f4520/src/7b7d85575607bb0c7ec6262ea130bfaa8a9106f3/lib/uart\\_and\\_sw\\_uart/?at=master](https://bitbucket.org/dineshravilla/sht15_pic18f4520/src/7b7d85575607bb0c7ec6262ea130bfaa8a9106f3/lib/uart_and_sw_uart/?at=master))

RD0 – Tx

RD1 – Rx

Baud Rate: 1200 for 4MHz crystal

For other baud rates, **\_XTAL\_FREQ** should also be changed along with the crystal frequency in the code.

For 9600 baud rate, 25MHz crystal oscillator should be used.

### **D1307:**

([https://bitbucket.org/dineshravilla/sht15\\_pic18f4520/src/7b7d85575607bb0c7ec6262ea130bfaa8a9106f3/lib/DS1337/?at=master](https://bitbucket.org/dineshravilla/sht15_pic18f4520/src/7b7d85575607bb0c7ec6262ea130bfaa8a9106f3/lib/DS1337/?at=master))

I2CWriteByte(Add) is used to write the address or data.

I2CReadByte() returns the data from Add to a variable

32.678 KHz crystal and a 3V battery is used for RTC.

Address of DS1307 – 0xD0

Register map:

0x00 – seconds

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0x07 - year