LABORATORY

Microcontrollers

LAB 7

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Task 1.

- Define the address of the RTC chip as 0xD0 to enable data exchange the microcontroller and the RTC module.
- Insert operation that converts Binary Code Decimal into Binary in the *ds1307_decodeBcd()* function.
- Enable data reading in ds1307_getTime() function from the minute to year.
- In *ds1307_SetToDefaultTime()* function the function *ds1307_setTime();* is called to set the predefined start time.
- In the main the current time/date is displayed by calling *display_showtime();* function.

Task 2.

- Timer1 and Timer0 are initialised with both having a pre-scale of 64
- Timer1 is used for the period of the the buzz
- Timer0 is used to toggle to enable a frequency of 1kHz
- The buzzer is connected to port PB2
- If statement is used to buzz the buzzer each time the hour changes
- Timer1 is used which overflows at 65535