Kunal Mukherjee

Notebook and time ENTRY

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| --- | --- | --- |
| **Date** | **Project Name** | **Hour Spent** |
| 2/5/2019 | Project 1 | 4 |
| 2/6/2019 | Project 1 | 4 |
| 2/7/2019 | Project 1 | 2 |
| 2/8/2019 | Project 1 | 2 |
| 2/9/2019 | Project 1 | 2 |
| 2/10/2019 | Project 1 | 3 |
| 2/11/2019 | Project 1 | 4 |
| 2/12/2019 | Project 1 | 4 |
| 2/13/2019 | Project 1 | 2 |
| 2/14/2019 | Project 1 | 2 |
| 2/15/2019 | Project 1 | 3 |
| 2/16/2019 | Project 1 | 4 |
| 2/17/2019 | Project 1 | 2 |
| 2/20/2019 | Project 2 | 2 |
| 2/21/2019 | Project 2 | 3 |
| 2/22/2019 | Project 2 | 3 |
| 2/23/2019 | Project 2 | 4 |
| 2/24/2019 | Project 2 | 2 |
| 2/25/2019 | Project 2 | 2 |
| 2/26/2019 | Project 2 | 3 |
| 2/27/2019 | Project 2 | 3 |
| 2/28/2019 | Project 2 | 4 |
| 3/1/2019 | Project 2 | 3 |
| 3/2/2019 | Project 2 | 3 |
| 3/3/2019 | Project 2 | 4 |
| 3/4/2019 | Project 2 | 4 |
| 4/20/2019 | Project 3 | 3 |
| 4/21/2019 | Project 3 | 2 |
| 4/22/2019 | Project 3 | 3 |
| 4/23/2019 | Project 3 | 2 |
| 4/24/2019 | Project 3 | 4 |
| 4/25/2019 | Project 3 | 3 |
| 4/26/2019 | Project 3 | 3 |
| 4/27/2019 | Project 3 | 3 |
| 4/28/2019 | Project 3 | 4 |
|  |  |  |
| **Total** |  | **105** |

Description for Each Time Entry:

2/5/2019 Project 1 Hour Spent: 4

* Started the project and looked at online documentation of how to use the key pad
* The map created of the key pad, of which key makes connection between which two-hole contact

2/6/2019 Project 1 Hour Spent: 4

* Started the code
* Set up GPIO to see that I am getting the right output and input
* Connected the keypad to see if the correct ports are acting as input and getting the output

2/7/2019 Project 1 Hour Spent: 2

* Set up the code, so that a character array stores the keys presses
* The microcontroller can now store a character array, then see if the character entered is corrected or not

2/8/2019 Project 1 Hour Spent: 2

* Worked on the engineering design of how to use a solenoid
* Worked on how to turn on/off a solenoid using a port in microcontroller

2/9/2019 Project 1 Hour Spent: 2

* Worked on a Mosfet design that will allow a solenoid to be turned on/off

2/10/2019 Project 1 Hour Spent: 3

* Set the code up that will supply the base voltage that will turn/off the mosfet

2/11/2019 Project 1 Hour Spent: 4

* Connected the mosfet and debugged the code, so that they physical system actually worked
* Tested the relay control, with BS170

2/12/2019 Project 1 Hour Spent: 4

* Went to Randall to get project checked, he said to use interrupt
* Learnt about setting up of GPIO interrupt
* Learnt about setting up of global NVIC clock

2/13/2019 Project 1 Hour Spent: 2

* Went to Mitchell to get help on interrupt
* Worked on NVIC setup

2/14/2019 Project 1 Hour Spent: 2

* Used the new interrupt to see if the system is still working
* Debugging the microcontroller code to see if the controller interrupt code is working

2/15/2019 Project 1 Hour Spent: 3

* Working on the interrupt controller
* Using the mosfet controller to see the compatibility of the system

2/16/2019 Project 1 Hour Spent: 4

* Working on external GPIO interrupt controller
* Working on the mosfet control

2/17/2019 Project 1 Hour Spent: 2

* Went for checking of the project
* Added the external feature that if you press 000000, then the code resets
* Increased the lock and unlock time to 5 seconds
* Worked on the comment of the code

2/20/2019 Project 2 Hour Spent: 2

* Created the skeletal code to create frontend
* Used WPF to create the frontend

2/21/2019 Project 2 Hour Spent: 3

* Added the RC, RL and RLC input text box in the WPF
* Added the input logic for the WPF for RC, RL and RLC input processing

2/22/2019 Project 2 Hour Spent: 3

* Worked on the equations on how to get the transfer function from R, L and C
* Worked on adding the circuit picture to the application

2/23/2019 Project 2 Hour Spent: 4

* Used the R, C and L to get the bode plot
* Used the R, C and L to get the angle of the bode plot
* Used the WPF to make the frontend beautiful

2/24/2019 Project 2 Hour Spent: 2

* Worked on the equation to use the cut-off frequency to get the bode plot
* Worked on the cut-off frequency to get the bode plot for high pass, low pass, band-pass and band-reject
* Writing the final equation to get implement it

2/25/2019 Project 2 Hour Spent: 2

* Coding the low-pass, high-pass filter with the known equation

2/26/2019 Project 2 Hour Spent: 3

* Coding the band-reject and band-pass filter with known equation

2/27/2019 Project 2 Hour Spent: 3

* Working on the plotting equation to get plot of low, high pass filter

2/28/2019 Project 2 Hour Spent: 4

* Working on the plotting equation to get plot of band-pass and band -reject

3/1/2019 Project 2 Hour Spent: 3

* Problem on the range of the bode plot equation

3/2/2019 Project 2 Hour Spent: 3

* Went to Blandford to get the range of the bode plot

3/3/2019 Project 2 Hour Spent: 4

* Used on a special feature to add, k-kilo, m-milli, n-nano, p-pico
* The suffix can be added and the code will know the value

3/4/2019 Project 2 Hour Spent: 4

* Went to Randall to check the project
* Worked on the font-end to make it beautiful
* Worked on the back end to comment the code

4/20/2019 Project 3 Hour Spent: 3

* Worked on ADC
* Worked on I2C timing and transmission

4/21/2019 Project 3 Hour Spent: 2

* Worked on I2C sensor device
* Used to test the sensor to get the data
* Debugging the issue

4/22/2019 Project 3 Hour Spent: 3

* Worked on the ADC sensor to get the temperature and light sensor
* Worked on the data to get the appropriate data range

4/23/2019 Project 3 Hour Spent: 2

* Worked on adding the USART to the code

4/24/2019 Project 3 Hour Spent: 4

* Worked on adding a timer, so that the process happens every 1 hour
* Worked on adding a interrupt to see if that works better

4/25/2019 Project 3 Hour Spent: 3

* Worked on adding a mosfet code turning off and on code
* Worked on adding the port logic to control the turning on/off a sensor

4/26/2019 Project 3 Hour Spent: 3

* Testing the whole code to see the data logger working
* Removed the interrupt code and using only the timer code

4/27/2019 Project 3 Hour Spent: 3

* Removed the timer 3 and used timer 1 instead to get the time working
* Used the timer 1 to get appropriate 30 sec delay to see if the SD card is turn on correctly
* Used the timer to see if the data rate of UART is working correctly or not

4/28/2019 Project 3 Hour Spent: 4

* The USART baud rate was not working
* Looking at the correct procedure to turn on and off the mosfet for the sensor
* The sensor are working correctly
* Working on I2C data collection protocol, so that if it jams there is a timer, after the timer exhausts the code breaks out
* Testing the whole code
* Working on the documentation of the code