# Signatures

You will be experimenting with various aspects of WICED Wi-Fi® by completing the exercises below. Labs are marked as “Basic” and “Advanced”. You should make sure you complete at least the basic exercises before moving on to the next section. Work on the advanced exercises as time allows.

Once you complete an exercise, demonstrate it to one of the instructors to get their signature on this page.

| Initials | Chapter | Exercise | Category | Description |
|---|---|---|---|---|
| | N/A | N/A | Basic | Verify “CheckMySetup” installation |
| | 01 (Survey) | 01 | Basic | Create a forum account |
| | | 02 | Basic | Open the WICED documentation |
| | 02 (Peripherals) | 01 | Basic | Install BCM943907AEVAL1F_WW101 platform files |
| | | 02 | Basic | Blink an LED |
| | | 03 | Basic | Add debug printing |
| | | 04 | Basic | Read an input pin |
| | | 05 | Basic | Use a pin interrupt |
| | | 06 | Basic | Toggle I2C controlled LEDs |
| | | 07 | Basic | Read analog co-processor sensor values over I2C |
| | | 08 | Advanced | Probe the I2C bus for any attached devices |
| | | 09 | Advanced | Adjust LED brightness |
| | | 10 | Advanced | Write data using the standard UART functions |
| | | 11 | Advanced | Read a value using the standard UART functions |
| | 03 (RTOS) | 01 | Basic | Create an LED blink thread |
| | | 02 | Basic | Use a semaphore |
| | | 03 | Advanced | Use a MUTEX |
| | | 04 | Advanced | Use a Queue |
| | | 05 | Advanced | Use a Timer |
| | | 06 | Advanced | Setup and Run the Debugger |
| | 04 (Library) | 01 | Basic | Browse the library |
| | | 02 | Basic | Review graphics library documentation and run examples |
| | | 03 | Advanced | Display sensor information on the OLED display |
| | | 04 | Basic | Parse JSON using cJSON |
| | | 05 | Advanced | Parse JSON using JSON_Parser |
| | 05 (Wi-Fi) | 01 | Basic | Attach to WPA2 PSK network |
| | | 02 | Basic | Attach to an open network |
| | | 03 | Basic | Print network information to a terminal |
| | | 04 | Advanced | Switch between 2 networks within the application |
| | 06 (Sockets / TLS) | 01 | Basic | Implement a client to write data to the server using TCP streams |
| | | 02 | Basic | Modify the client to inspect return code from the server |
| | | 03 | Advanced | Modify the client to use secure TLS sockets |
| | | 04 | Advanced | Implement a server for a single non-secure TCP connection |
| | | 05 | Advanced | Implement a server using secure TLS sockets |
| | | 06 | Advanced | Implement a client that uses both non-secure and secure sockets |
| | | 07 | Advanced | Implement a server that listens to both non-secure and secure sockets |
| | 07b (Cloud / MQTT) | 01 | Basic | Provision a new *thing* in the AWS IOT cloud |
| | | 02 | Basic | Use the Test terminal on the AWS website |
| | | 03 | Basic | Build and test the publisher demo |
| | | 04 | Basic | Explain the publisher demo firmware flow |
| | | 05 | Basic | Build and test the subscriber demo |
| | | 06 | Advanced | Implement the publisher and subscriber in 2 different kits and test |
| | | 07 | Advanced | Build and test the shadow demo |