# **Milestone Three Questions**

1. **What is the purpose of the timerCallback() function?**

The purpose of the timerCallback() function is to handle actions that need to occur at regular intervals. This function is called by the timer interrupt at the intervals defined by the timer's period. Typical actions include updating the state of a state machine, refreshing displays, or performing periodic checks and operations.

1. **What does period mean in this context?**

In the context of a timer on an embedded system, the period refers to the time interval between successive invocations of the timerCallback() function. This interval is set when configuring the timer and determines how frequently the timer interrupt occurs, thereby controlling the frequency of the periodic actions performed by the callback function.

1. **How does the Timer\_CONTINUOUS\_CALLBACK parameter impact the driver?**

The Timer\_CONTINUOUS\_CALLBACK parameter configures the timer to continuously loop and repeatedly invoke the callback function at the specified interval. This means the timer will not stop after a single invocation but will keep triggering the callback at regular intervals indefinitely, allowing for continuous periodic operations.

1. **What is gpioButtonFxn0() used for?**

The gpioButtonFxn0() function is an interrupt service routine (ISR) that is triggered by a GPIO (General-Purpose Input/Output) interrupt, typically caused by a button press. In this case, it is used to toggle the state of LED\_0 on and off. The function responds to the interrupt by changing the state of the LED, providing immediate feedback to the user that the button press was detected.

1. **What is the purpose of GPIO\_CFG\_IN\_INT\_FALLING?**

The GPIO\_CFG\_IN\_INT\_FALLING configuration sets the GPIO pin to trigger an interrupt on the falling edge of a signal. In the context of a button press, this means that the interrupt will be triggered when the button is released (when the signal transitions from high to low). This configuration is commonly used to detect button presses in embedded systems, as it allows the system to respond to user input reliably.