EMBEDDED SYSTEMS

Assignment 1

CODE MANAGEMENT

- Sign up for BitBucket account
  - https://bitbucket.org/
- Do Atlassian git tutorial
  - https://www.atlassian.com/git/tutorials/
  - Add myself and your TA to your repository
    - *If we can't access your repository you will not receive a grade*
  - We'll check for a repository with at least two commits (individually graded)
- Review this git branching model
  - http://nvie.com/posts/a-successful-git-branching-model/
  - Perform branch and merge operations demonstrating this model in your repository (individually graded)
- Review the "Use a wiki" section of the BitBucket documentation
  - https://confluence.atlassian.com/bitbucket/use-a-wiki-221449748.html
  - Add a table of contents to your wiki home page
  - Create a new page called Assignment 1 linked from your table of contents (individually graded)
  - You'll be linking to code from the next part on this page
- Setup a team repository for your group and add all members, myself, and your TA
  - Add myself and your TA to your repository
    - *If we can't access your repository you will not receive a grade*
  - Add a table of contents to your wiki page and link to a new page with your team description (team graded)
    - Should include: team name and each member name

ARM® mbed™

- Explore mbed Handbook
  - https://developer.mbed.org/handbook/Homepage
- Explore mbed SDK source code
  - https://developer.mbed.org/users/mbed_official/code/mbed-src/
- Locate the low-level C/C++ functions for Timer handling on the LPC 1768
  - On your Assignment 1 wiki page explain: (individually graded)
    - What the relevant source files are and why
    - The C/C++ structure used to abstract the timer hardware interface
    - How the elements of this structure map to physical I/O addresses

LPC1768

ARM® mbed™

- Setup mbed LPC1768
  - https://developer.mbed.org/platforms/mbed-LPC1768/
- Write and run a Hello World program
  - Commit the code to your repository under branch assignment1-hello (individually graded)
- Write a program that uses the timer to flash the four on-board LEDs in sequence
  - The sequence should repeat at 1Hz (1/sec) interval
  - Commit the code to your repository under the branch assignment1-led (individually graded)