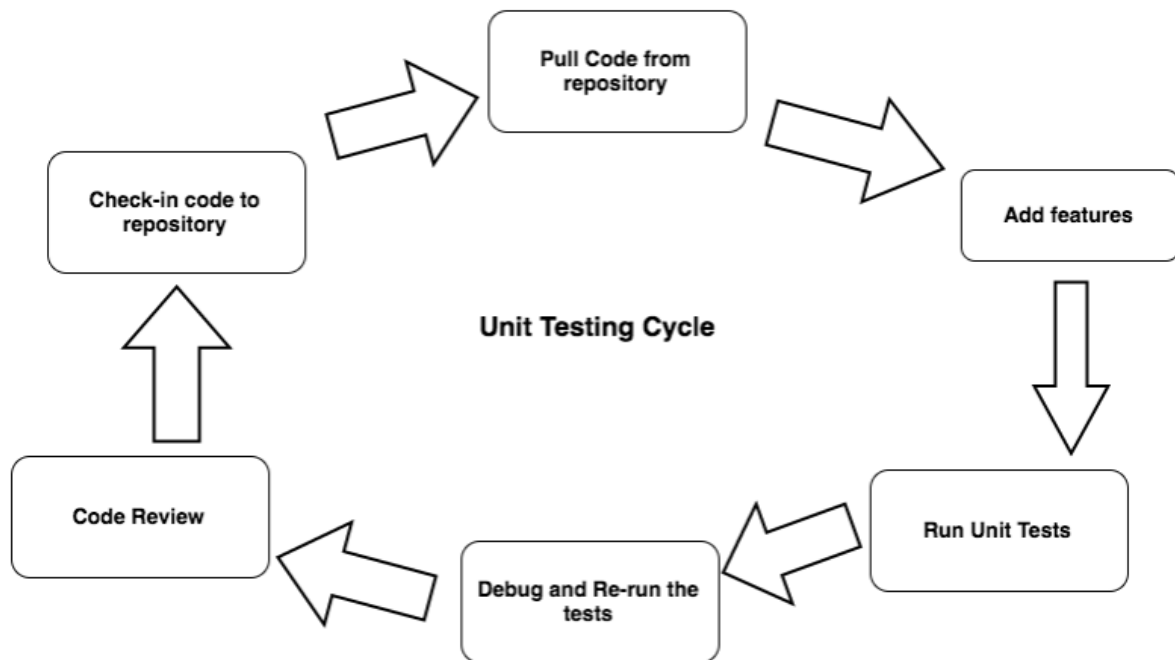


Prospected Unit Testing procedure



- Pull Code from Github Repository page
- Add feature unit on the repository folder in format of a new folder, file, or functions
- Run PRESET unit tests on the repository with a designed command (like make, bash script or a line of command)
- Debug for any issues and rerun the test until passed
- Request code review by assigned people
- Fix issues from code review until approved
- Push code to Github

Note:

- QA engineers will monitor Code Review process and Unit testbench but not participate into this cycle
- Dev engineers should follow this cycle from **Pull Code from repository** to **Check-in code to repository**

Demo:

1. Pull from repository

```
PS C:\Users\jiang\OneDrive\Desktop\EMC_Type1_testbench> git pull
remote: Enumerating objects: 7, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), 1.09 KiB | 14.00 KiB/s, done.
From https://github.com/RFLAMBDA/EMC_Type1_OLD
 139db3d..a771d6d  main    -> origin/main
Updating 139db3d..a771d6d
Fast-forward
 logs/README.md | 8 +++++--
 1 file changed, 6 insertions(+), 2 deletions(-)
```

2. Add features

```
C main_set_get_old_state.c M X
testbench > src > main > C main_set_get_old_state.c > set_get_old_state(int, int)
1  #include "../test.h"
2
3  int set_get_old_state(int set_get, int state)
4  {
5      static int old_state=1; //0
6
7      if(set_get)
8          old_state=new_lcd_state; //old_state=state;
9      else
10         //EXAMPLE: added features
11         return old_state;
12 }
```

3. Run Preset unit tests

```
PS C:\Users\jiang\OneDrive\Desktop\EMC_Type1_testbench> make test
*** TESTING 16 items: ***
./testbench/src/main/main_Get_Adc_Average.c
./testbench/src/main/main_Initial_Check_5_vd_dr_vd.c
./testbench/src/main/main_Receive_usb_Usart_Data.c
./testbench/src/main/main_STMFLASH_ReadHalfWord.c
./testbench/src/main/main_all_protection_run.c
./testbench/src/main/main_check_dac_vg_flash_vd.c
./testbench/src/main/main_get_1_eeprom.c
./testbench/src/main/main_j_to_reset_f.c
./testbench/src/main/main_mux_reset_cl_f.c
./testbench/src/main/main_new_lcd_key_state_main.c
./testbench/src/main/main_read_all_mux.c
./testbench/src/main/main_read_mcu_adc.c
./testbench/src/main/main_read_rotary_a_b.c
./testbench/src/main/main_set_get_flag_cl_onoff.c
./testbench/src/main/main_set_get_old_state.c
./testbench/src/main/main_w5100s_Socket_state_machinew5100s_Socket_state_machine.c
*****START*****
*****START of test_main_set_get_old_state() test(s) *****
FAIL --- test 0 expecting 0, results 1
FAIL --- test 1 expecting 0, results 1
FAIL --- test 2 expecting 0, results 1

*** FAILED!!!! Passed 0 / 3 Tests ***

*****END*****
```

4. Debug on source code until all unit tests passed

```
PS C:\Users\jiang\OneDrive\Desktop\EMC_Type1_testbench> make test
*** TESTING 16 items: ***
./testbench/src/main/main_Get_Adc_Average.c
./testbench/src/main/main_Initial_Check_5_vd_dn_vd.c
./testbench/src/main/main_Receive_usb_Usart_Data.c
./testbench/src/main/main_STMFLASH_ReadHalfWord.c
./testbench/src/main/main_all_protection_run.c
./testbench/src/main/main_check_dac_vg_flash_vd.c
./testbench/src/main/main_get_1_eeprom.c
./testbench/src/main/main_j_to_reset_f.c
./testbench/src/main/main_mux_reset_cl_f.c
./testbench/src/main/main_new_lcd_key_state_main.c
./testbench/src/main/main_read_all_mux.c
./testbench/src/main/main_read_mcu_adc.c
./testbench/src/main/main_read_rotary_a_b.c
./testbench/src/main/main_set_get_flag_cl_onoff.c
./testbench/src/main/main_set_get_old_state.c
./testbench/src/main/main_w5100s_Socket_state_machinew5100s_Socket_state_machine.c
*****START*****
*****START of test_main_set_get_old_state() test(s) *****
***** ALL 3 Tests Passed
*****END*****
```


5. Submit your code into your dev branch



```
PS C:\Users\jiang\OneDrive\Desktop\push_test> git add *
PS C:\Users\jiang\OneDrive\Desktop\push_test> git commit -am "add test"
On branch dev
```

```
PS C:\Users\jiang\OneDrive\Desktop\push_test> git push --set-upstream origin dev
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 16 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (4/4), 479 bytes | 479.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
remote:
remote: Create a pull request for 'dev' on GitHub by visiting:
remote:   https://github.com/RFLAMBDA/push_test/pull/new/dev
remote:
To https://github.com/RFLAMBDA/push_test
 * [new branch]      dev -> dev
branch 'dev' set up to track 'origin/dev'.
```

6. Pull your code to main from dev branch and wait for approval

On GitHub

 dev had recent pushes 1 minute ago [Compare & pull request](#)

 main  2 branches  0 tags [Go to file](#) [Add file](#) [Code](#)

Wait for code review and approval

Conversation 0 Commits 1 Checks 0 Files changed 3

DLJ000 commented now • edited Member ...

Added one feature and passed all unit tests

add test 24dbacf

Add more commits by pushing to the `dev` branch on [RFLAMBDA/push_test](#).

Review required
At least 1 approving review is required by reviewers with write access. [Learn more about pull request reviews.](#)

Merging is blocked
Merging can be performed automatically with 1 approving review. [View rules](#)

Merge pull request You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

7. Merge your code once it is approved

Add more commits by pushing to the `dev` branch on [RFLAMBDA/push_test](#).

Changes approved [Show all reviewers](#)
1 approving review by reviewers with write access. [Learn more about pull request reviews.](#)

1 approval

Continuous integration has not been set up
[GitHub Actions](#) and [several other apps](#) can be used to automatically catch bugs and enforce style.

This branch has no conflicts with the base branch
Merging can be performed automatically.


Merge pull request You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Conversation 0

Commits 1

Checks 0

Files changed 3





DLJ000 commented 11 minutes ago • edited


Member

...

Added one feature and passed all unit tests









add test

24dbacf



 RZ-rflambda approved these changes 1 minute ago


[View reviewed changes](#)


RZ-rflambda left a comment


Member

...

Looks good, approved





 DLJ000 merged commit 9a3b94c into main now

Revert