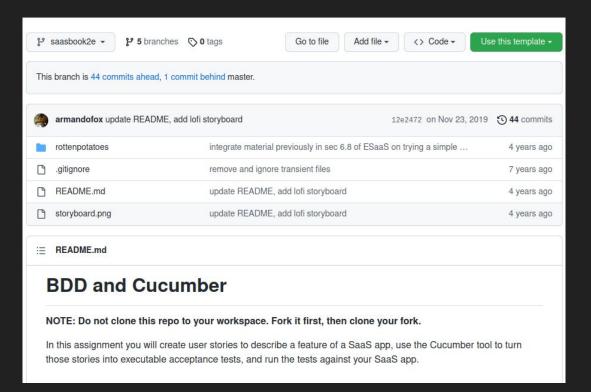
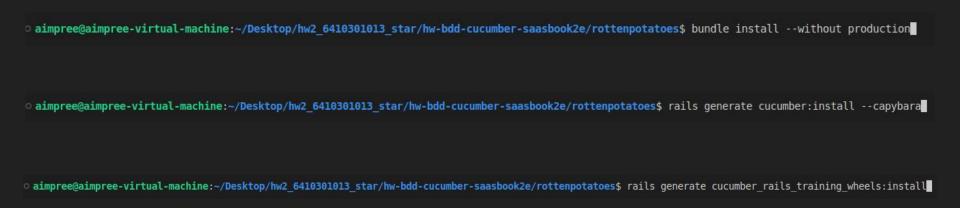
การบ้านครั้งที่2

# BDD-CUCUMBER



# setup



# run cucumber add\_movie.feature

aimpree@aimpree-virtual-machine:~/Desktop/hw2\_6410301013\_star/hw-bdd-cucumber-saasbook2e/rottenpotatoes\$ bundle exec cucumber features/add movie.feature

```
Feature: User can manually add movie
    Background: movies have been added to database
      Given the following movies exist:
        title
                                 rating | release date
        Aladdin
                                          25-Nov-1992
        The Terminator
                                          26-0ct-1984
        When Harry Met Sally
                                          21-Jul-1989
                                1 R
        The Help
                                | PG-13 | 10-Aug-2011
        Chocolat
                                | PG-13 | 5-Jan-2001
        Amelie
                                         | 25-Apr-2001
        2001: A Space Odyssey | G
                                         | 6-Apr-1968
        The Incredibles
                                I PG
                                         1 5-Nov-2004
        Raiders of the Lost Ark | PG
                                         | 12-Jun-1981
       I Chicken Run
                                         | 21-Jun-2000
      And I am on the RottenPotatoes home page
    Scenario: Add a movie 1
      Given I am on the RottenPotatoes home page
      When I follow "Add new movie"
      Then I should be on the Create New Movie page
      When I fill in "Title" with "Men In Black"
      And I select "PG-13" from "Rating"
      And I press "Save Changes"
      Then I should be on the RottenPotatoes home page
      And I should see "Men In Black"
28
```

# scenario 1 failed step 1 failed, 7 skiped

```
Scenario: Add a movie
                                                    # features/add movie.feature:3
   Given I am on the RottenPotatoes home page
                                                    # features/step definitions/web steps.rb:44
     Now, go and add a mapping in /home/aimpree/Desktop/ex /hw-bdd-cucumber-saasbook2e/rottenpotato
 rb (RuntimeError)
      ./features/support/paths.rb:25:in `path to'
      ./features/step_definitions/web_steps.rb:45:in \^(?:|I )am on (.+)$/'
     features/add movie.feature:4:in Given I am on the RottenPotatoes home page
   When I follow "Add new movie"
                                                    # features/step definitions/web steps.rb:56
   Then I should be on the Create New Movie page
                                                    # features/step definitions/web steps.rb:230
   When I fill in "Title" with "Men In Black'
                                                    # features/step definitions/web steps.rb:60
   And I select "PG-13" from "Rating"
                                                    # features/step definitions/web steps.rb:85
   And I press "Save Changes"
                                                     # features/step definitions/web steps.rb:52
   Then I should be on the RottenPotatoes home page # features/step definitions/web steps.rb:230
   And I should see "Men In Black"
                                                    # features/step definitions/web steps.rb:105
failing Scenarios:
ucumber features/add movie.feature:3 # Scenario: Add a movie
. scenario (1 failed)
| steps (1 failed, 7 skipped)
impree@aimpree-virtual-machine:~/Desktop/ex /hw-bdd-cucumber-saasbook2e/rottenpotatoes$
```

#### scenario 1 passed 1 failed, 7 skiped

```
Background: movies have been added to database # features/add movie.feature:3
                                                 # features/step definitions/movie steps.rb:3
         I am on the RottenPotatoes home page
                                                # features/step definitions/web steps.rb:44
   Scenario: Add a movie 1
                                                      # features/add movie.feature:20
     Given I am on the RottenPotatoes home page
                                                     # features/step definitions/web steps.rb:44
     When I follow "Add new movie"
 DEPRECATION: Using 'should' from rspec-expectations' old ':should' syntax without explicitly enabling the syntax
 licitly enable `:should` with `config.expect_with(:rspec) { |c| c.syntax = :should }` instead. Called from /home/
 r-saasbook2e/rottenpotatoes/features/step_definitions/web_steps.rb:233:in `block in <top (required)>'
     Then I should be on the Create New Movie page # features/step definitions/web steps.rb:230
     When I fill in "Title" with "Men In Black"
                                                     # features/step definitions/web steps.rb:60
     And I select "PG-13" from "Rating"
     And I press "Save Changes"
                                                     # features/step definitions/web steps.rb:52
     Then I should be on the RottenPotatoes home page # features/step definitions/web steps.rb:230
     And I should see "Men In Black"
                                                     # features/step definitions/web steps.rb:105
 1 scenario (1 passed)
 10 steps (10 passed)
 0m0.425s
• aimpree@aimpree-virtual-machine:~/Desktop/hw2 6410301013 star/hw-bdd-cucumber-saasbook2e/rottenpotatoes$ ruby -v
 ruby 2.6.6p146 (2020-03-31 revision 67876) [x86 64-linux]
 aimpree@aimpree-virtual-machine:~/Desktop/hw2 6410301013 star/hw-bdd-cucumber-saasbook2e/rottenpotatoes$
```

# ตัวอย่างการทำงาน

```
Given I am on the RottenPotatoes home page # features/step_definitions/web_steps.rb:44

Then I should be on the Create New Movie page # features/step_definitions/web_steps.rb:230
```

้เริ่มต้น ให้จำลองเริ่มจาก "Rottenpotatoes home page" และเมื่อ ทำการกด "Add new movie"

```
Given /^(?:|I )am on (.+)$/ do |page_name|

visit path_to(page_name)

end

Then /^(?:|I )should be on (.+)$/ do |page_name|

current_path = URI.parse(current_url).path

if current_path.respond_to?:should

current_path.should == path_to(page_name)

else

assert_equal path_to(page_name), current_path

end

end
```

```
when /^the (RottenPotatoes )?home\s?page$/ then '/movies'
when /^the movies page$/ then !/movies!

when / the movies page$/ then /movies
when /^the Create New Movie page$/ then '/movies/new'
```

# ตัวอย่างการทำงาน

```
#when /^the Create New Movie page$/ then '/movies/new'
equired)>'.
Then I should be on the Create New Movie page  # features/step_definitions/web_steps.rb:230
```

#### Scenario จะ failed ไปด้วยเพราะ Head

```
1 scenario (1 failed)
10 steps (1 failed, 5 skipped, 4 passed)
```

# run cucumber filter movie list.feature

aimpree@aimpree-virtual-machine:~/Desktop/hw2\_6410301013\_star/hw-bdd-cucumber-saasbook2e/rottenpotatoes\$ bundle exec cucumber features/filter\_movie\_list

```
Feature: display list of movies filtered by MPAA rating
 As a concerned parent
 So that I can quickly browse movies appropriate for my family
 I want to see movies matching only certain MPAA ratings
Background: movies have been added to database
 Given the following movies exist:
  | title
                            rating | release date
                                     25-Nov-1992
   Aladdin
                           l G
   The Terminator
                                     26-0ct-1984
   When Harry Met Sally
                           I R
                                     21-Jul-1989
   The Help
                           PG-13
                                    | 10-Aug-2011
   Chocolat
                           | PG-13
                                    | 5-Jan-2001
   Amelie
                           I R
                                     25-Apr-2001
   2001: A Space Odyssey | G
                                    6-Apr-1968
   The Incredibles
                                    5-Nov-2004
   Raiders of the Lost Ark | PG
                                    12-Jun-1981
   Chicken Run
                           I G
                                     21-Jun-2000
  And I am on the RottenPotatoes home page
  #Then 10 seed movies should exist
Scenario: restrict to movies with 'PG' or 'R' ratings
  # enter step(s) to check the 'PG' and 'R' checkboxes
 # enter step(s) to uncheck all other checkboxes
  # enter step to "submit" the search form on the homepage
 # enter step(s) to ensure that PG and R movies are visible
  # enter step(s) to ensure that other movies are not visible
```

```
Given I am on the home page
When I uncheck the following ratings: G, NC-17, PG-13
And I press "Refresh" button
Then I should see the following movies: The Terminator, The Incredibles
And I should not see the following movies: Chicken Run, The Melp

When I uncheck the following ratings: G, PG, PG-13, NC-17, R
And I press "Refresh" button
Then I should see the following movies: the The Terminator, The Incredibles
And I should not see the following movies: Chicken return, The Melp

Given I am on the home page
When I check the following ratings: G, PG, PG-13, NC-17, R
And I press "Refresh" button
Then I should see all the movies
```

# run cucumber filter\_movie\_list.feature

```
Given the following movies exist:
                                               # features/step definitions/movie steps.rb:3
                                rating | release date
      The Terminator
      When Harry Met Sally
      The Help
                                PG-13
                                       10-Aug-2011
      2001: A Space Odvssev
                                         6-Apr-1968
      The Incredibles
      Raiders of the Lost Ark | PG
      Chicken Run
     Unimplemented (RuntimeError)
     ./features/step definitions/movie steps.rb:8:in `/the following movies exist/'
     features/filter movie list.feature:9:in `Given the following movies exist:'
                                               # features/step definitions/web steps.rb:44
  And I am on the RottenPotatoes home page
                                               # features/step definitions/movie steps.rb:11
  Then 10 seed movies should exist
Scenario: restrict to movies with 'PG' or 'R' ratings # features/filter movie list.feature:25
# enter step(s) to check the 'PG' and 'R' checkboxes
# enter step(s) to uncheck all other checkboxes
# enter step to "submit" the search form on the homepage
# enter step(s) to ensure that PG and R movies are visible
# enter step(s) to ensure that other movies are not visible
Scenario: all ratings selected # features/filter movie list.feature:32
ailing Scenarios:
ucumber features/filter movie list.feature:25 # Scenario: restrict to movies with 'PG' or 'R' ratings
ucumber features/filter movie list.feature:32 # Scenario: all ratings selected
scenarios (2 failed)
steps (2 failed, 4 skipped)
m0.021s
impree@aimpree-virtual-machine:~/Desktop/ex /hw-bdd-cucumber-saasbook2e/rottenpotatoes$
```

You can implement step definitions for undefined steps with these snippets:

Then(/^I should not see the following movies: Chicken Run, The Melp\$/) do pending # Write code here that turns the phrase above into concrete actions end

Then(/^I should not see the following movies: Chicken return, The Melp\$/) do pending # Write code here that turns the phrase above into concrete actions

```
Raiders of the Lost Ark
    And I am on the RottenPotatoes home page # features/step definitions/web steps.rb:44
  #Then 10 seed movies should exist
  Scenario: restrict to movies with 'PG' or 'R' ratings
                                                                               # features/filter movie list.feature:25
      # enter step(s) to check the 'PG' and 'R' checkboxes
      # enter step(s) to uncheck all other checkboxes
      # enter step to "submit" the search form on the homepage
      # enter step(s) to ensure that PG and R movies are visible
      # enter step(s) to ensure that other movies are not visible
    Given I am on the home page
                                                                               # features/step definitions/web steps.rb:44
    When I uncheck the following ratings: G, NC-17, PG-13
                                                                               # features/step definitions/movie steps.rb:60
    And I press "Refresh" button
                                                                               # features/step definitions/movie steps.rb:74
    Then I should see the following movies: The Terminator, The Incredibles
    And I should not see the following movies: Chicken Run, The Melp
                                                                               # features/filter movie list.feature:36
      Undefined step: "I should not see the following movies: Chicken Run, The Melp" (Cucumber::Undefined)
      features/filter_movie_list.feature:36:in `And I should not see the following movies: Chicken Run, The Melp'
                                                                               # features/step definitions/movie steps.rb:60
    When I uncheck the following ratings: G, PG, PG-13, NC-17, R
    And I press "Refresh" button
                                                                               # features/step definitions/movie steps.rb:23
    Then I should see the following movies: the The Terminator, The Incredibles # features/step definitions/movie steps.rb:74
    And I should not see the following movies: Chicken return. The Melp
                                                                               # features/filter movie list.feature:41
      Undefined step: "I should not see the following movies: Chicken return, The Melp" (Cucumber::Undefined)
      features/filter movie list.feature:41:in `And I should not see the following movies: Chicken return, The Melp'
  Scenario: all rating selected
                                                              # features/filter movie list.feature:43
    Given I am on the home page
                                                              # features/step definitions/web steps.rb:44
    When I check the following ratings: G, PG, PG-13, NC-17, R # features/step definitions/movie steps.rb:60
    And I press "Refresh" button
                                                              # features/step definitions/movie steps.rb:87
2 scenarios (1 undefined, 1 passed)
17 steps (3 skipped, 2 undefined, 12 passed)
```

#### ประกาศใน movie\_step.rb

```
Then /I should (not )?see the following movies: "(.*)"/ do |present, movies_list|
movies = movies_list.split(', ')
movies.each do |movie|
    if not_present.nil?
    | expect(page).to have_content(movie)
    else
    | expect(page).not_to have_content(movie)
    end
end
end
```

# run cucumber sort movie list.feature

```
hw-bdd-cucumber-saasbook2e > rottenpotatoes > features > ≡ sort_movie_list.feature
      Feature: display list of movies sorted by different criteria
       As an avid moviegoer
        So that I can quickly browse movies based on my preferences
        I want to see movies sorted by title or release date
      Background: movies have been added to database
        Given the following movies exist:
        I title
                                    rating | release date
                                             25-Nov-1992
          Aladdin
          The Terminator
                                             26-0ct-1984
          When Harry Met Sally
                                             21-Jul-1989
                                   I R
          The Help
                                   | PG-13 | 10-Aug-2011
          Chocolat
                                   PG-13
                                           | 5-Jan-2001
          Amelie
                                             25-Apr-2001
          2001: A Space Odyssey
                                   I G
                                           6-Apr-1968
          The Incredibles
                                   PG
                                            5-Nov-2004
          Raiders of the Lost Ark | PG
                                           12-Jun-1981
          Chicken Run
                                             21-Jun-2000
        And I am on the RottenPotatoes home page
        Then 10 seed movies should exist
      Scenario: sort movies alphabetically 3
       When I follow "Movie Title"
        # your steps here
      Scenario: sort movies in increasing order of release date 4
        When I follow "Release Date"
        # your steps here
```

# run cucumber sort\_movie\_list.feature

```
Background: movies have been added to database # features/sort movie list.feature:7
    Given the following movies exist:
                                                 # features/step definitions/movie steps.rb:3
                                          release date
        The Terminator
        When Harry Met Sally
        The Help
                                           25-Apr-2001
        2001: A Space Odyssey
        The Incredibles
        Raiders of the Lost Ark
        Chicken Run
    And I am on the RottenPotatoes home page
                                                 # features/step definitions/web steps.rb:44
    Then 10 seed movies should exist
                                                 # features/step definitions/web steps.rb:253
  Scenario: sort movies alphabetically 3 # features/sort movie list.feature:25
    When I follow "Movie Title"
                                         # features/step definitions/web steps.rb:56
  # your steps here
  Scenario: sort movies in increasing order of release date 4 # features/sort movie list.feature:30
    When I follow "Release Date"
                                                              # features/step definitions/web steps.rb:56
2 scenarios (2 passed)
8 steps (8 passed)
0m0.406s
aimpree@aimpree-virtual-machine:~/Desktop/hw2 6410301013 star/hw-bdd-cucumber-saasbook2e/rottenpotatoes$ 🗍
```

# run cucumber search\_movie.feature

```
Scenario: Try to add nonexistent movie (sad path)
                                                                             # features/search movie.feature:7
 Given I am on the RottenPotatoes home page # features/step_definitions/web_steps.rb:44

DEPRECATION: Using `should` from rspec-expectations' old `:should` syntax without explicitly enabling the syntax is dep
 ct` syntax or explicitly enable `:should` with `config.expect_with(:rspec) { |c| c.syntax = :should }` instead. Called`
 hw2 6410301013 star/hw-bdd-cucumber-saasbook2e/rottenpotatoes/features/step definitions/web steps.rb:107:in `block in <
     Then I should see "Search TMDb for a movie"
                                                                             # features/step definitions/web steps.rb:105
 Rating Release Date More Info Add new movie" (RSpec::Expectations::ExpectationNotMetError)
       ./features/step definitions/web steps.rb:107:in `/^(?:|I )should see "([^"]*)"$/'
       features/search movie.feature:10:in `Then I should see "Search TMDb for a movie"'
     When I fill in "Search Terms" with "Movie That Does Not Exist" # features/step definitions/web steps.rb:60
     And I press "Search TMDb"
                                                                             # features/step definitions/web steps.rb:52
     Then I should be on the RottenPotatoes home page # features/step definitions/web steps.rb:230
     And I should see "'Movie That Does Not Exist' was not found in TMDb." # features/step definitions/web steps.rb:105
 Failing Scenarios:
 cucumber features/search movie.feature:7 # Scenario: Try to add nonexistent movie (sad path)
 1 scenario (1 failed)
 6 steps (1 failed, 4 skipped, 1 passed)
aimpree@aimpree-virtual-machine:~/Desktop/hw2 6410301013 star/hw-bdd-cucumber-saasbook2e/rottenpotatoes$
```

#### เกิดจากการที่ไม่ได้เอา API มา

## ทดลองเปิดเซฟ

aimpree@aimpree-virtual-machine:~/Desktop/hw2 6410301013 star/hw-bdd-cucumber-saasbook2e/rottenpotatoes\$ rails server

```
/usr/share/rvm/gems/ruby-2.6.6/gems/activesupport-4.2.10/lib/active support/core ext/object/duplicable.rb:111: warning: BigDecimal.new is deprecat
ed; use BigDecimal() method instead.
WARNING: Cucumber-rails required outside of env.rb. The rest of loading is being deferred until env.rb is called.
  To avoid this warning, move 'gem 'cucumber-rails', :require => false' under only group :test in your Gemfile.
  If already in the :test group, be sure you are specifying ':require => false'.
=> Booting WEBrick
=> Rails 4.2.10 application starting in development on http://localhost:3000
=> Run `rails server -h` for more startup options
=> Ctrl-C to shutdown server
DEPRECATION WARNING: Sprockets method `register engine` is deprecated.
Please register a mime type using 'register mime type' then
use `register compressor` or `register transformer`.
https://github.com/rails/sprockets/blob/master/guides/extending sprockets.md#supporting-all-versions-of-sprockets-in-processors
 (called from block (2 levels) in <class:Railtie> at /usr/share/rvm/gems/ruby-2.6.6/gems/sass-rails-5.0.4/lib/sass/rails/railtie.rb:57)
DEPRECATION WARNING: Sprockets method `register engine` is deprecated.
Please register a mime type using `register mime type` then
use `register compressor` or `register transformer`.
https://github.com/rails/sprockets/blob/master/guides/extending sprockets.md#supporting-all-versions-of-sprockets-in-processors
 (called from block (2 levels) in <class:Railtie> at /usr/share/rvm/gems/ruby-2.6.6/gems/sass-rails-5.0.4/lib/sass/rails/railtie.rb:58)
[2023-02-17 03:15:29] INFO WEBrick 1.4.2
[2023-02-17 03:15:29] INFO ruby 2.6.6 (2020-03-31) [x86 64-linux]
[2023-02-17 03:15:29] INFO WEBrick::HTTPServer#start: pid=51060 port=3000
```

# ทดลองเปิดเซฟ

O localhost:3000/movies?ratings[G]=1&ratings[NC-17]=1&ratings[PG]=1&ratings[PG-13]=1&ratings[R]=1&sort=title

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#### Rotten Potatoes!

#### All Movies

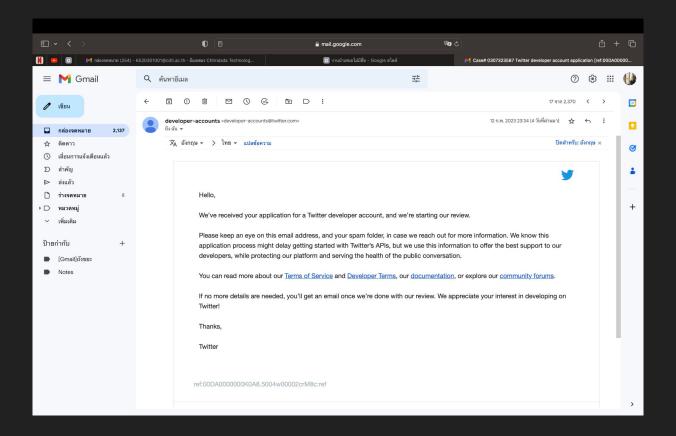
Login with Facebook

Include: G ☑ PG ☑ PG-13 ☑ NC-17 ☑ R ☑ Search TMDb for a movie Refresh

Movie Title	Rating	Release Date	More Info
2001: A Space Odyssey	G	1968-04-06 00:00:00 UTC	More about 2001: A Space Odyssey
Aladdin	G	1992-11-25 00:00:00 UTC	More about Aladdin
Amelie	R	2001-04-25 00:00:00 UTC	More about Amelie
Chicken Run	G	2000-06-21 00:00:00 UTC	More about Chicken Run
Chocolat	PG-13	2001-01-05 00:00:00 UTC	More about Chocolat
Raiders of the Lost Ark	PG	1981-06-12 00:00:00 UTC	More about Raiders of the Lost Ark
The Help	PG-13	2011-08-10 00:00:00 UTC	More about The Help
The Incredibles	PG	2004-11-05 00:00:00 UTC	More about The Incredibles
The Terminator	R	1984-10-26 00:00:00 UTC	More about The Terminator
When Harry Met Sally	R	1989-07-21 00:00:00 UTC	More about When Harry Met Sally

Add new movie

#### Twitter API



## การใช้งาน Git Version control



### git version control

#### Git

คือ Version Control ที่ถูกพัฒนาขึ้นมาเพื่อใช้ในกระบวนการพัฒนาซอฟต์แวร์ หรือ ระบบที่ถูก พัฒนาขึ้นมาเพื่อใช้สำหรับการติดตาม ตรวจสอบ การพัฒนา แก้ไข ซอร์ซโค้ด ซอร์ซไฟล์ ต่าง ๆ ในขั้นตอนการพัฒนา ที่สามารถตรวจสอบได้ทุกตัวอักษร ทุกบรรทัด ทุกไฟล์ ที่มีการ แก้ไข ใครเป็นคนแก้ไข และแก้ไข ณ วันที่เท่าไหร่

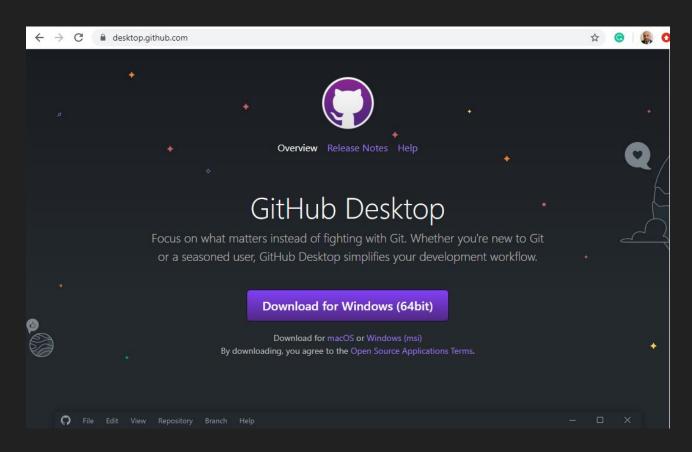
# การใช้งาน Git

แบ่งออกเป็น 2 ประเภท

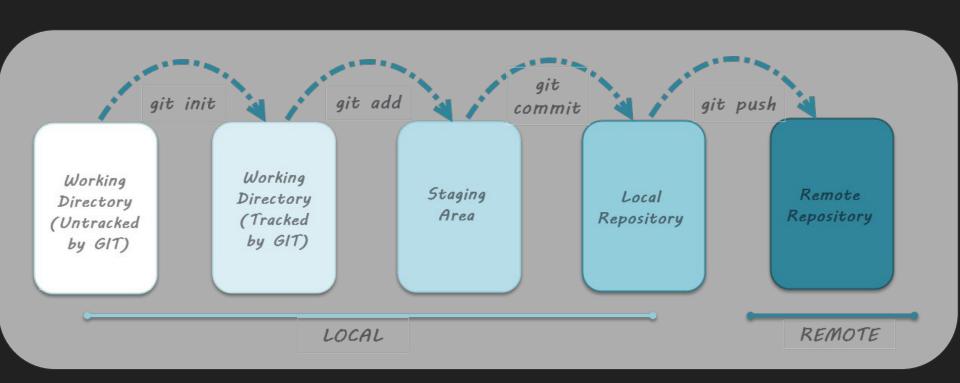
#### 1. Command Line

```
Command Prompt
Microsoft Windows [Version 10.0, 19045, 2486]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Admin>cd Desktop/
C:\Users\Admin\Desktop>mkdir gitvc
C:\Users\Admin\Desktop>cd gitvc
C:\Users\Admin\Desktop\gitvc\echo "# gitvc" >> README.md
C:\Users\Admin\Desktop\gitvc>git init
Initialized empty Git repository in C:/Users/Admin/Desktop/gitvc/.git/
C:\Users\Admin\Desktop\gitvc>git add README.md
C:\Users\Admin\Desktop\gitvc>git commit -m "first commit"
[master (root-commit) 9062a9e] first commit
 1 file changed, 1 insertion(+)
 create mode 100644 README, md
C:\Users\Admin>git branch -M main
C:\Users\Admin>git remote add origin https://github.com/6520301002/gitvc.git
C:\Users\Admin>git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 221 bytes | 221.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/6520301002/gitvc.git
 * [new branch]
                    main -> main
branch 'main' set up to track 'origin/main'.
```

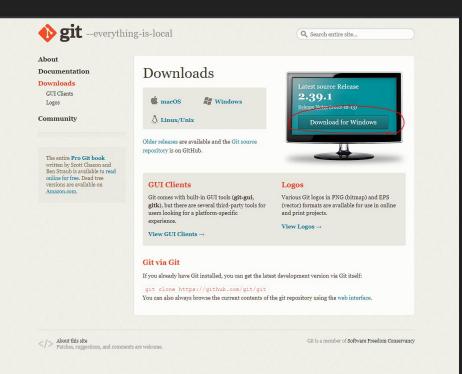
### 2.Git GUI



### วงจรการทำงานของ Git



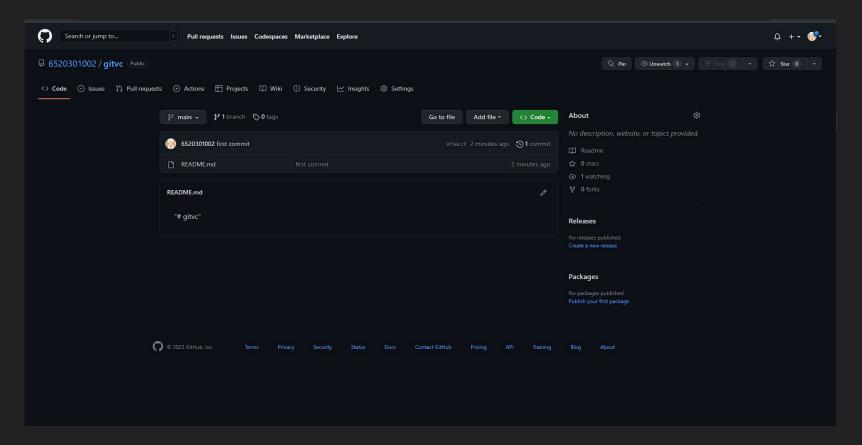
## การ Downloads git



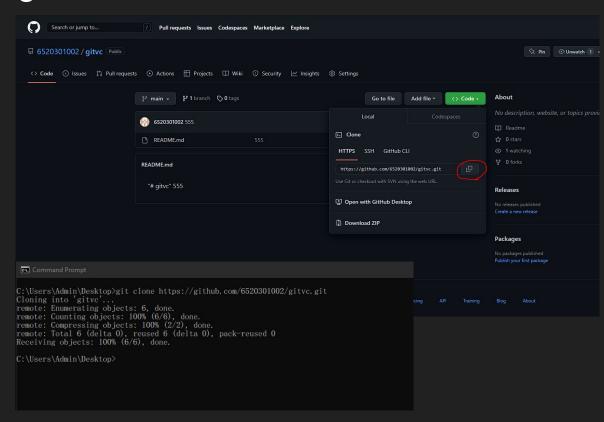
#### การใช้งานคำสั่งเพื่อใช้งาน Git Version Control

```
Command Prompt
Microsoft Windows [Version 10.0, 19045, 2486]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Admin>cd Desktop/
C:\Users\Admin\Desktop>mkdir gitvc
C:\Users\Admin\Desktop>cd gitvc
C:\Users\Admin\Desktop\gitvc\echo "# gitvc" >> README.md
C:\Users\Admin\Desktop\gitvc>git init
Initialized empty Git repository in C:/Users/Admin/Desktop/gitvc/.git/
C:\Users\Admin\Desktop\gitvc>git add README.md
C:\Users\Admin\Desktop\gitvc>git commit -m "first commit"
[master (root-commit) 9062a9e] first commit
 1 file changed, 1 insertion(+)
 create mode 100644 README. md
C:\Users\Admin>git branch -M main
C:\Users\Admin>git remote add origin https://github.com/6520301002/gitvc.git
C:\Users\Admin>git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 221 bytes | 221.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/6520301002/gitvc.git
 * [new branch] main -> main
branch 'main' set up to track 'origin/main'.
```

# ผลลัพธ์เมื่อทำการใช้คำสั่ง Git Push

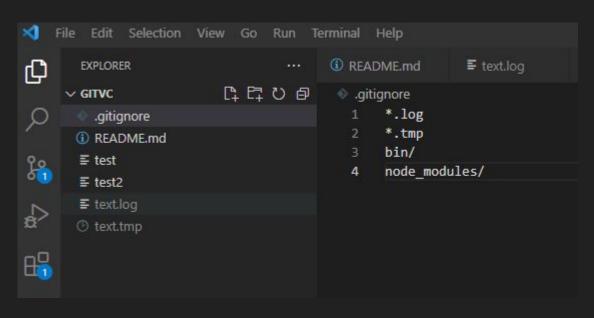


### git clone

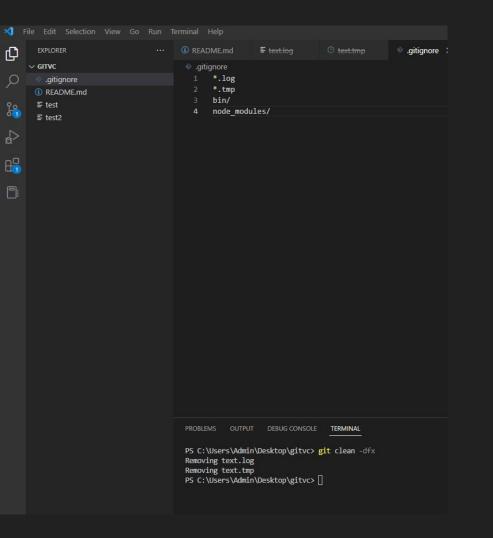


git clone เป็นการcopy งาน มาจากโปรเจ็คหลักโดยเรา จะสามารถเปลี่ยนแปลง ไฟล์ในโปรเจ็คจำลองนี้ ได้โดยที่ไม่กระทบโปร เจ็คหลัก เราสามารถไป copy URL จาก github ได้ ตามรป

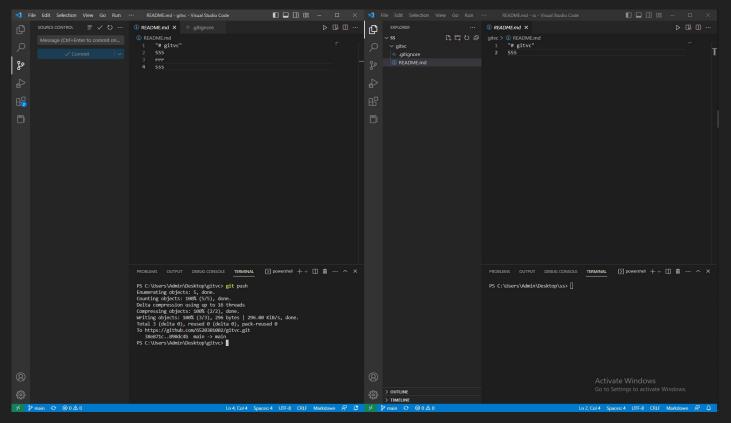
## git ignored



คือการลบไฟล์ที่เป็นuntracked และไฟล์ที่เป็นนามสกุลเช่น.log ประโยชน์คือทำให้ไม่เปลือง พื้นที่และเวลาอัพโหลดก็จะไม่ ช้า

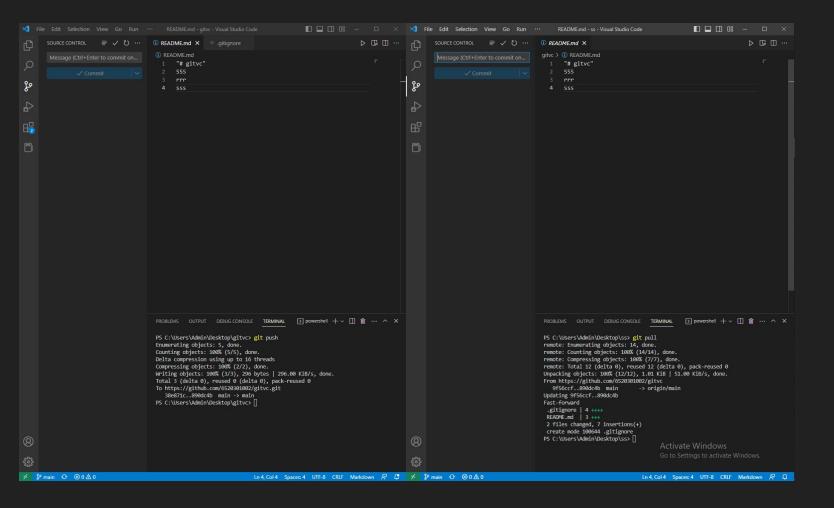


## push and pull

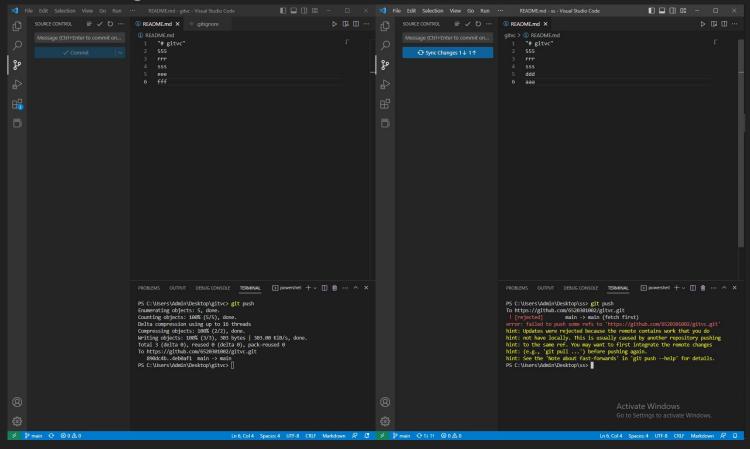


push คือการอัพโหลด ไฟล์ขึ้นบนgithub

pull คือ การอัพเดต ไฟล์ให้เป็นversion ล่า สด

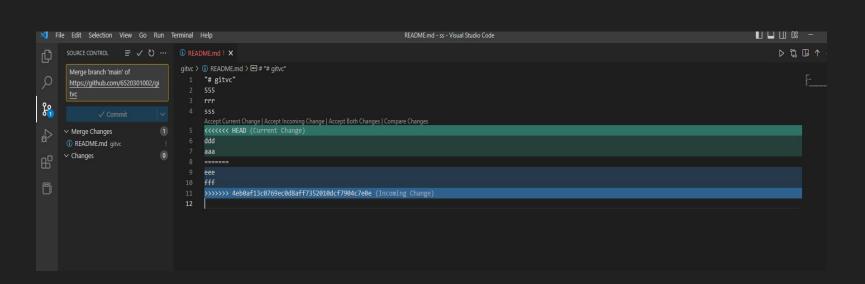


## การ Merge Conflict

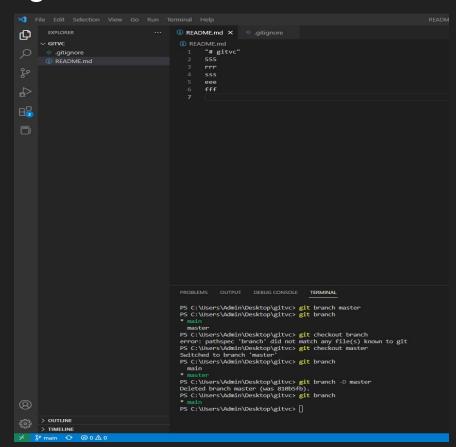


คือการที่เราแก้ ไฟล์ด้วยกัน

2 เครื่องขึ้นไปและ เกิด confliict ว่า เราต้องการเลือก ไฟล์จากเครื่อง ไหน

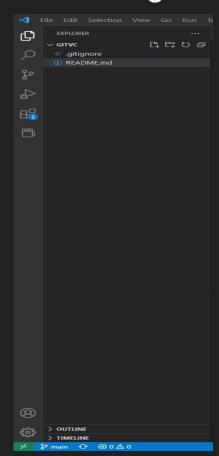


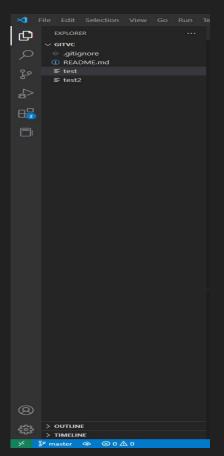
### git branch



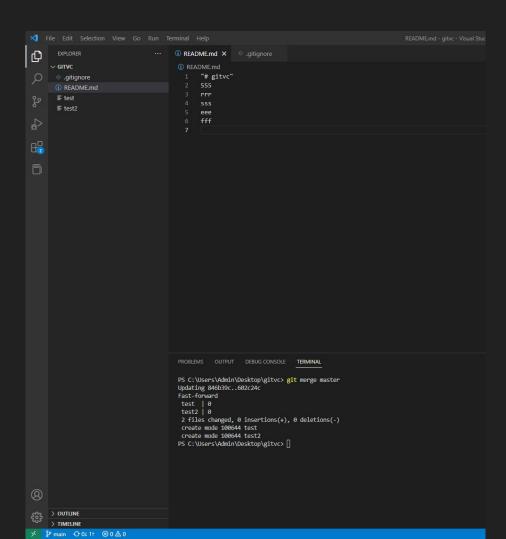
git branch คือการแตกbranchออกมาเพื่อ เพิ่มฟังก์ชั่นต่างๆในbranchนั้น โดยที่จะไม่ กระทบโค้ดในbranchหลัก

## การ Merge Branch

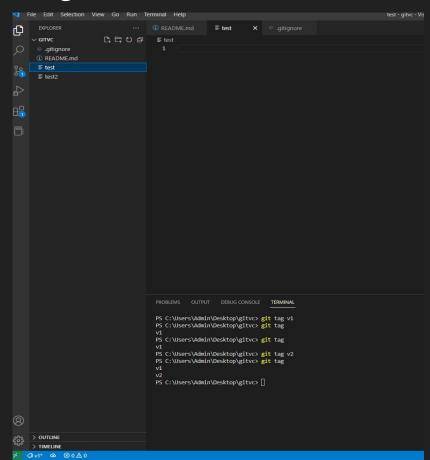




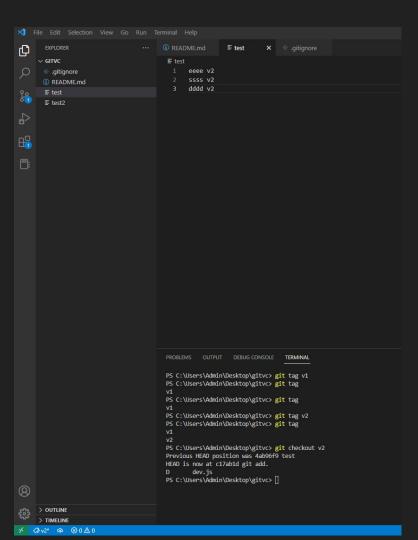
git merge branch คือการรวม branch ที่เจาะจงมายัง branchที่เรา เลือก



# Tag Version



tag คือ การtag version ของโค้ดที่ต้องการ จะเหมือนกับbranch แต่จะไม่สามารถแก้ไข tagนั้นได้



```
PS C:\Users\Admin\Desktop\gitvc> git push origin v2
Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 16 threads

Compressing objects: 100% (2/2), done.

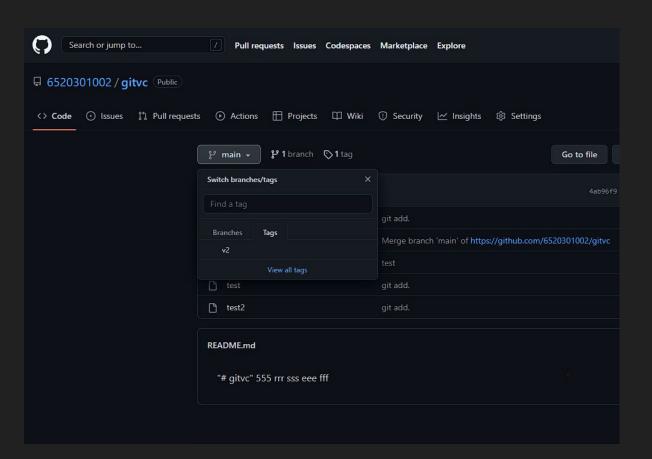
Writing objects: 100% (3/3), 266 bytes | 266.00 KiB/s, done.

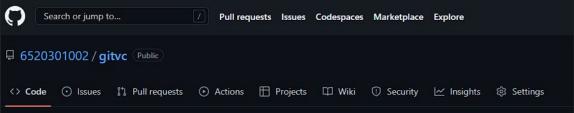
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.

To https://github.com/6520301002/gitvc.git

* [new tag] v2 -> v2

PS C:\Users\Admin\Desktop\gitvc> []
```





**PROBLEMS** DEBUG CONSOLE OUTPUT TERMINAL Counting objects: 100% (5/5), done. Delta compression using up to 16 threads Compressing objects: 100% (2/2), done. Writing objects: 100% (3/3), 266 bytes | 266.00 KiB/s, done. Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 remote: Resolving deltas: 100% (1/1), completed with 1 local object. To https://github.com/6520301002/gitvc.git \* [new tag] v2 -> v2 PS C:\Users\Admin\Desktop\gitvc> git push -d origin v2 To https://github.com/6520301002/gitvc.git - [deleted] V2 PS C:\Users\Admin\Desktop\gitvc> git tag v1 V2 PS C:\Users\Admin\Desktop\gitvc> git tag -d v1 Deleted tag 'v1' (was 4ab96f9) PS C:\Users\Admin\Desktop\gitvc> git tag V2 PS C:\Users\Admin\Desktop\gitvc>

