



Plan Stage
Project Management - Lab 1

### **Lab Assignment**

#### Part 1

**Scenario:** Create a project structure and views

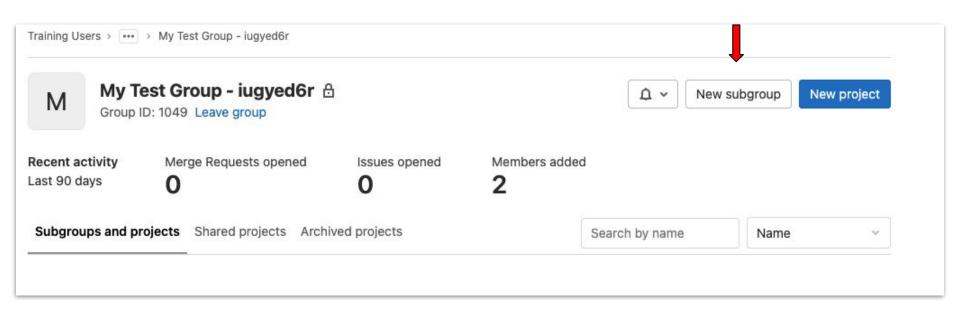
### Key Tasks to Complete

- 1. Create a Group
- 2. Create a Project
- 3. Create Project Milestone
- 4. Create at least 3 labels
- 5. Create at least 2 project issues.
- 6. Create New Board
- 7. Modify board scoping

# Create subgroup

### From your workshop group:

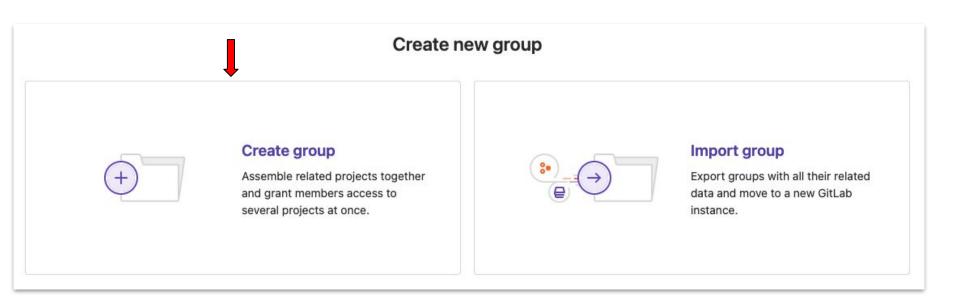
1. Select the 'New subgroup' button.



# Create subgroup cont.

### From the Create group page:

- Select the 'Create group' panel.



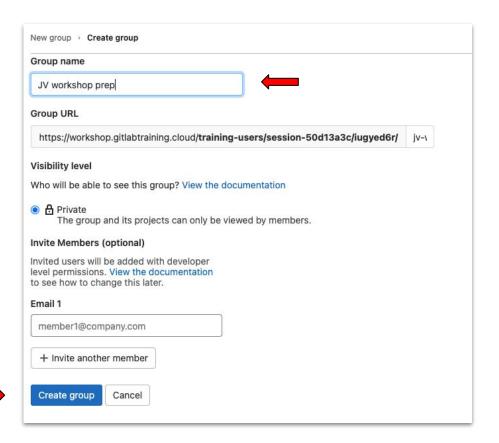
## Enter subgroup details

### From the Create group tab:

- Enter desired subgroup name in the 'Group name' field.
- Select the 'Create group' button.

#### FYI:

Do not edit Group URL field.

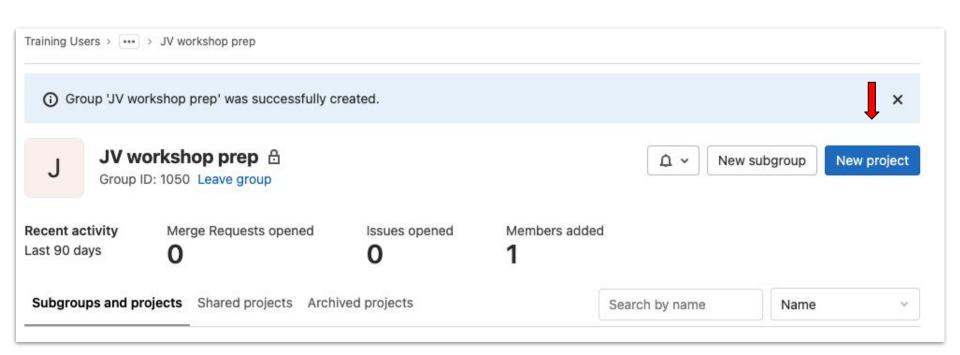




## Create project

### From your workshop subgroup:

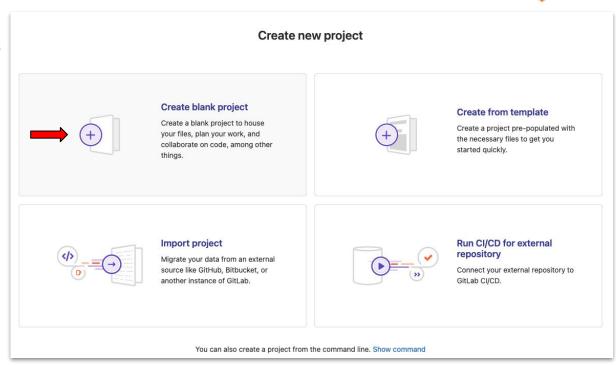
1. Select the 'New project' button.



# Create blank project

### In the 'Create new project' page:

 Select 'Create blank project' quadrant.



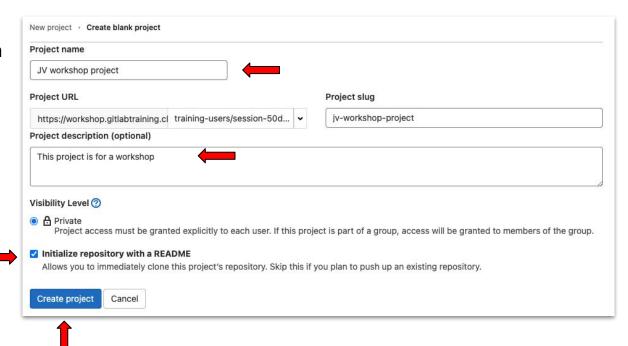
## Enter project details

### In the Create blank project page:

- 1. Enter desired project name in the '**Project name**' field.
- Enter a brief project description in the 'Project description' (optional) field.
- Select the Initialize repository with README checkbox so it is enabled.
- Select the 'Create project' button.

#### FYI:

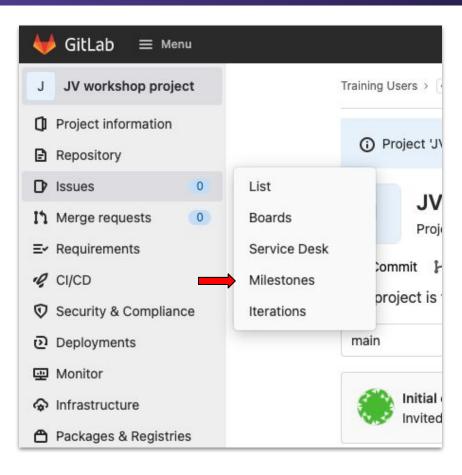
Do not edit Project slug field.



## Access project milestones

### In the project repository:

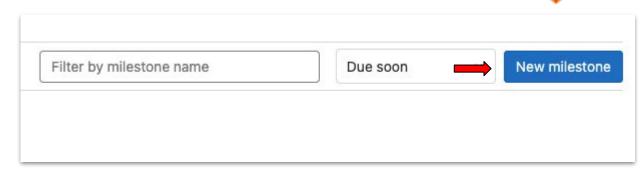
Select 'Issues→Milestones'.



# Create new project milestone A

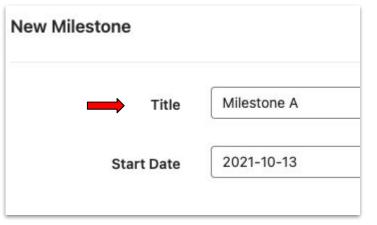
### In the project Milestone view:

- No Milestones will be listed.
- Select the 'New milestone' button.



#### In the New Milestone page:

 Enter a milestone title into the 'Title' field.



## Enter project milestone A start and due dates

#### In the New Milestone page:

 Enter a brief milestone description into the 'Description' field.

#### Enter a Start Date.

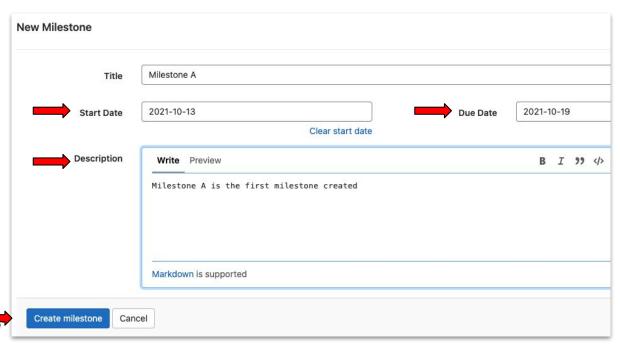
- 1. Select the 'Start Date' field.
- 2. Select today's date.

### Enter a Due Date.

- Select the 'Due Date' field.
- Select the date six days from the Start Date.

#### Create the Milestone

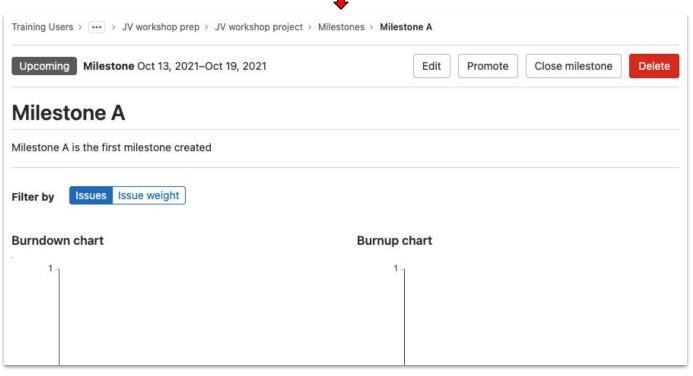
Select the 'Create milestone' button.



# Project milestone A details

#### In the Milestone details:

Select 'Milestones'.



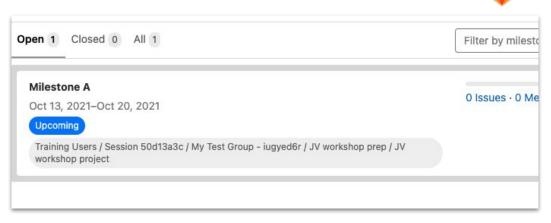
# Create new project milestone

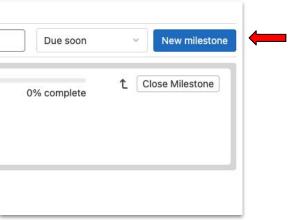
#### In the project Milestone view:

1. Milestone A will be listed.

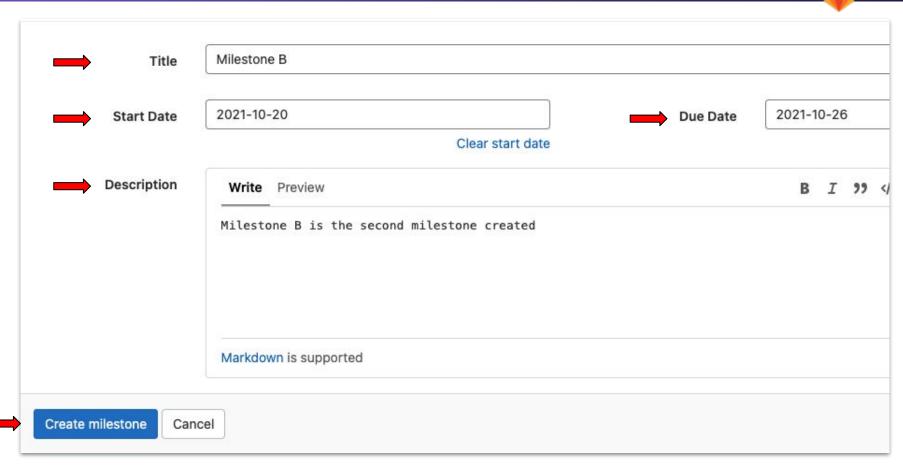
#### **Create a new Milestone:**

 Select the 'New milestone' button.

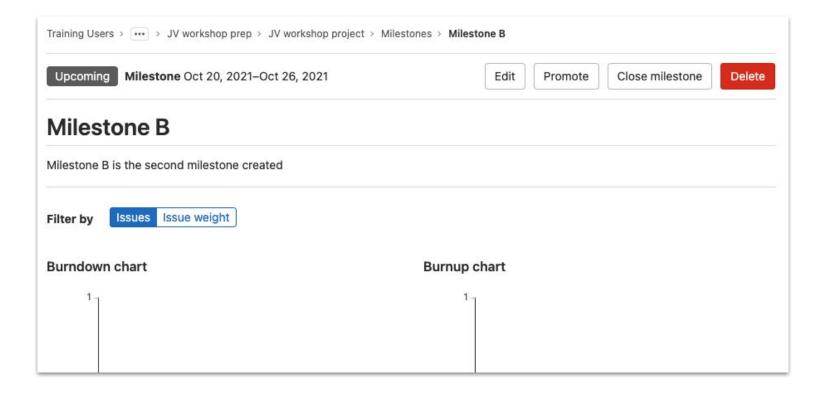




# Repeat: Create a project milestone



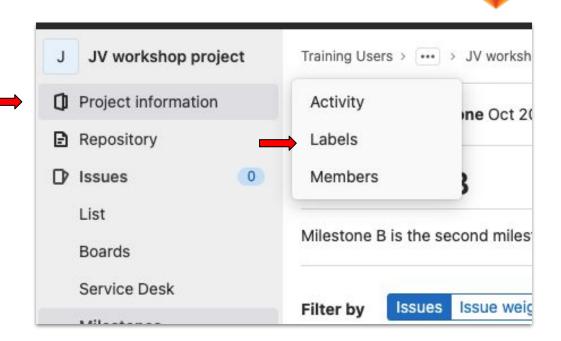
# Project milestone B details



# Access project labels

### In the project repository:

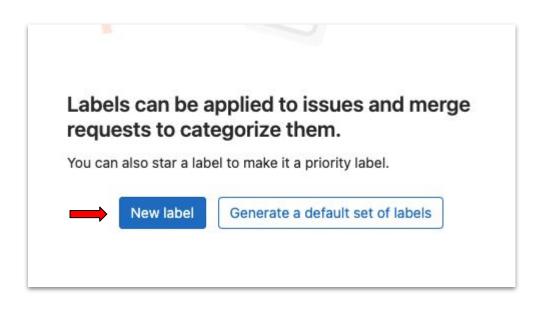
 Select 'Project information→Labels'.



# Create new scoped project label

#### In the project Labels view:

- No Labels will be listed.
- Select the 'New label' button.



# Enter new scoped project label title

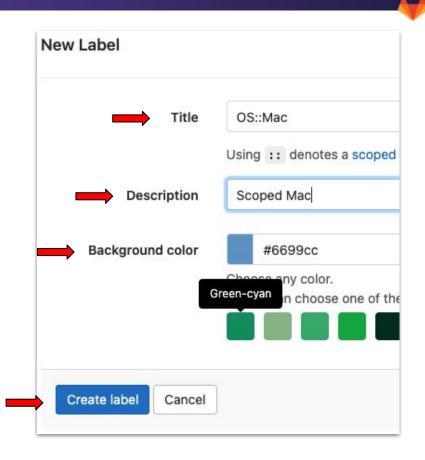
#### In the project Labels view:

- 1. Enter a scoped label title in the '**Title**' field.
- For example, enter 'OS::Mac'.

FYI, scoped labels are formatted as <value>::<value>

#### In the project Labels view:

- Enter a brief scoped label description in the 'Description' field.
- Select a background color from the color options listed.
- 3. Select the 'Create label' button.



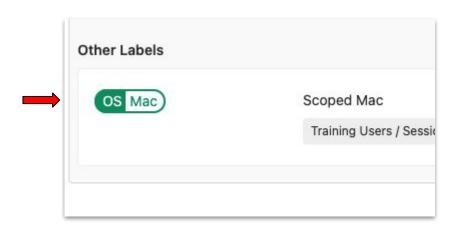
# Project labels list

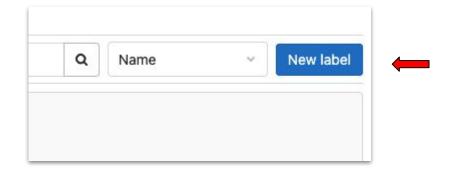
### In the project Labels list:

Confirm 'OS::Mac' label is listed.

### In the project Labels list:

Select the 'New label' button.

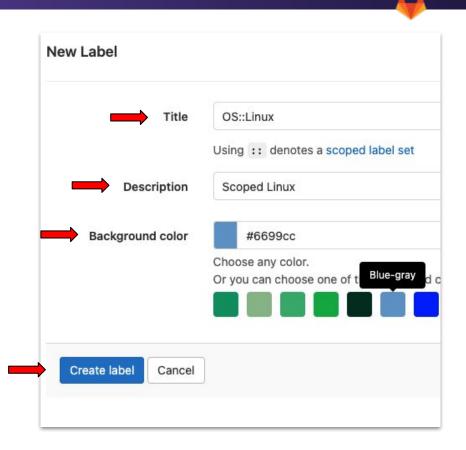




# Enter another scoped project label title

#### In the project Labels view:

- Enter a scoped label title in the 'Title' field.
- 2. For example, enter 'OS::Linux'.
- Enter a brief scoped label description in the
   'Description' field.
- Select a background color from the color options listed.
- Select the 'Create label' button.



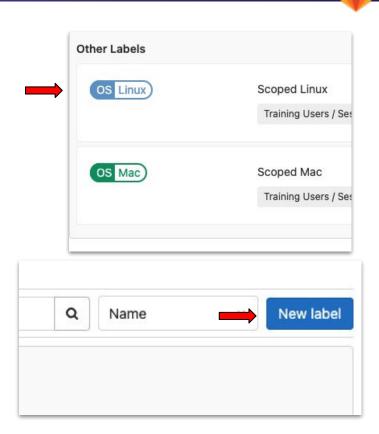
# Project labels list

### In the project Labels list:

Confirm 'OS::Linux' label is listed.

### In the project Labels list:

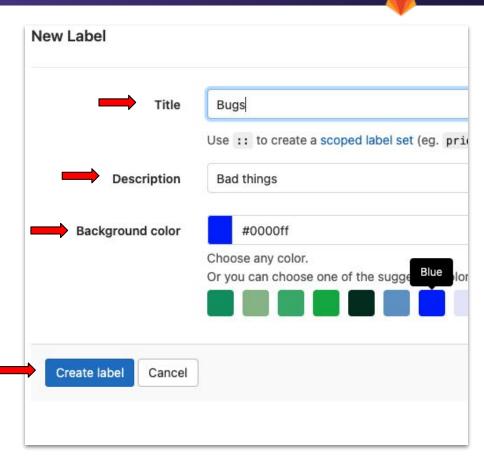
1. Select the 'New label' button.



## Enter new non-scoped project label title

#### In the project Labels view:

- 1. Enter a non-scoped label title in the '**Title**' field.
- 2. For example, enter 'Bugs'.
- 3. Enter a brief label description in the 'Description' field.
- Select a background color from the color option listed.
- Select the 'Create label' button.



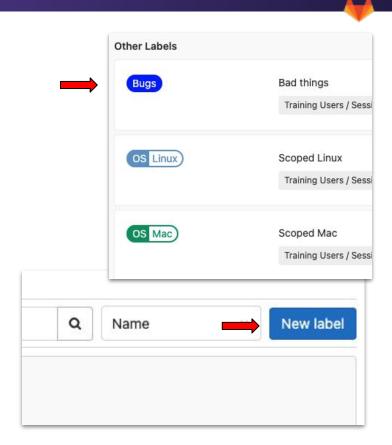
# Project labels list

### In the project Labels list:

1. Confirm 'Bugs' label is listed.

#### In the project Labels list:

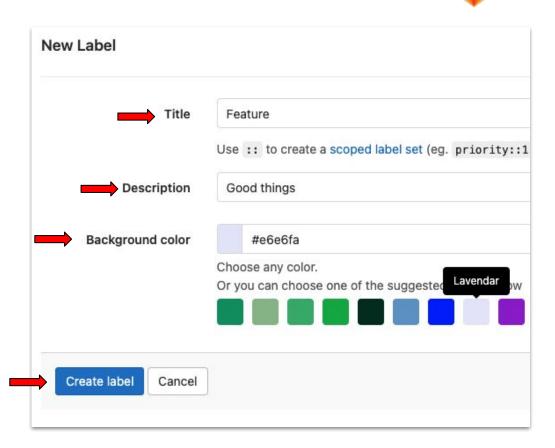
1. Select the 'New label' button.



## Enter new non-scoped project label title

### In the project Labels view:

- 1. Enter a non-scoped label title in the '**Title**' field.
- 2. For example, enter 'Feature'.
- 3. Enter a brief label description in the **'Description**' field.
- Select a background color from the color option listed.
- Select the 'Create label' button.



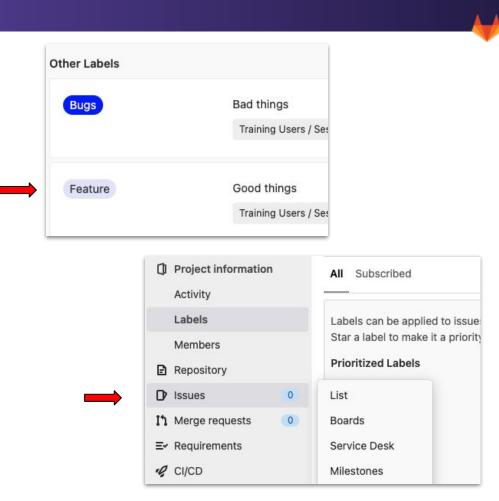
# Project labels list

### In the project Labels list:

Confirm 'Feature' label is listed.

### In the project Labels list:

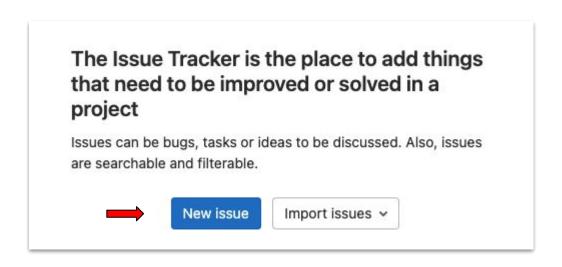
1. Select the '**Issue**' panel.



#### Create issue

### In the project Labels view:

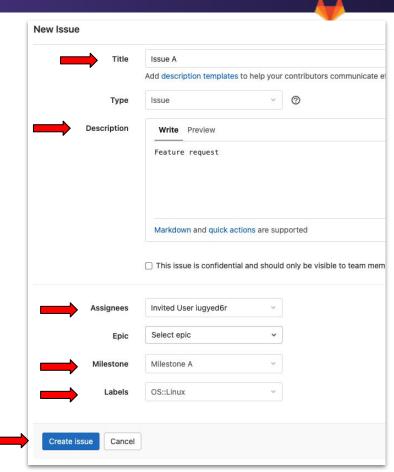
- No issues will be listed.
- Select the 'New issue' button.



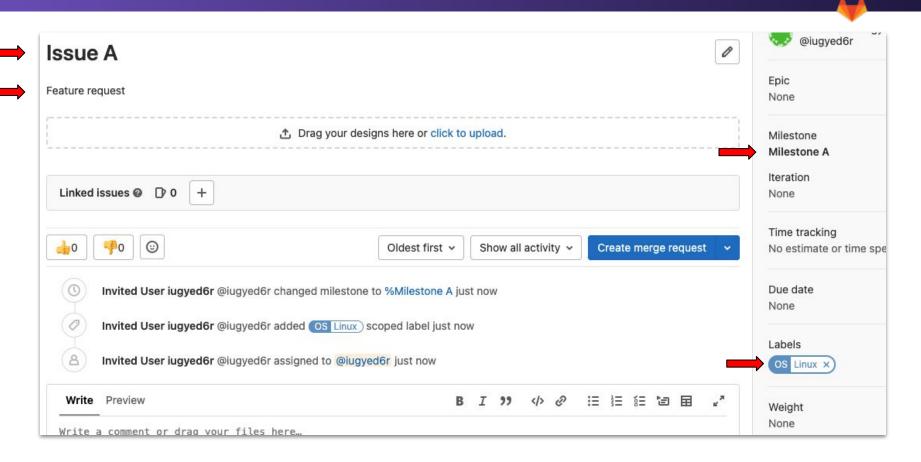
### Enter issue metadata/create issue

#### In the project New issue view:

- Enter an issue title in the 'Title' field.
- 2. Enter an issue description in the '**Description**' field.
- Select the 'Assign to me' hyperlink.
- Select the 'Milestone' drop-down→<any milestone>.
- Select the 'Labels' drop-down→<any label>.
- Select the 'Submit issue' button.



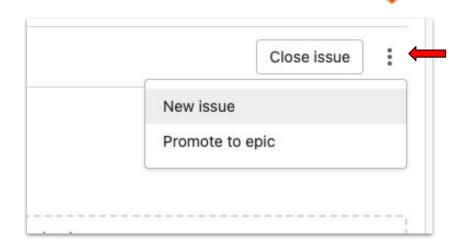
#### Issue details



# Create issue

### In the project issue view:

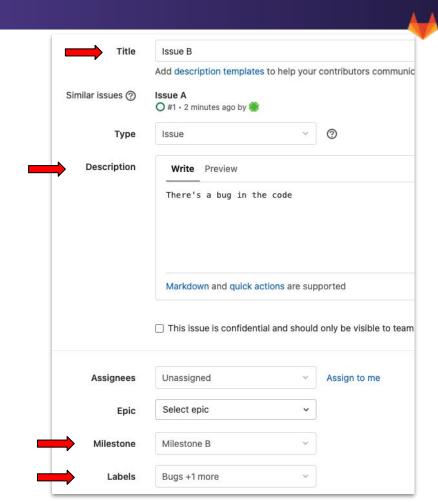
- 1. Select the
- 2. Select 'New issue' option.



# Repeat: enter issue details

#### In the project New issue view:

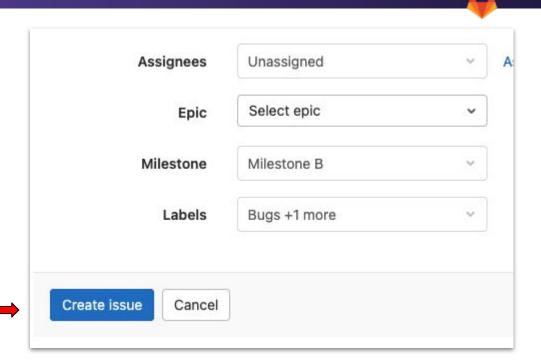
- Enter an issue title in the 'Title' field.
- Enter an issue description in the 'Description' field.
- Select the 'Milestone' drop-down→<any milestone>.
- Select the 'Labels' drop-down→'<scoped label>' and '<non-scoped label>'.
- Select the 'Submit issue' button.



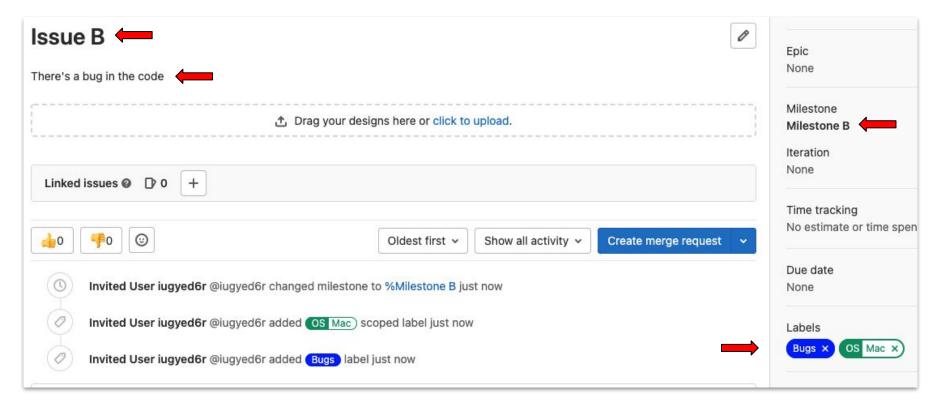
### Finalize the issue creation

## In the project New issue view:

1. Select the 'Create issue' button.



#### New issue details



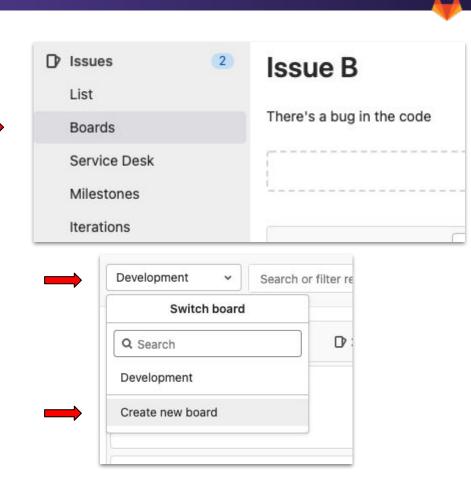
# Access project issue boards

### In the project repository:

1. Select 'Issues→Boards'.

### In the project Issue Board view:

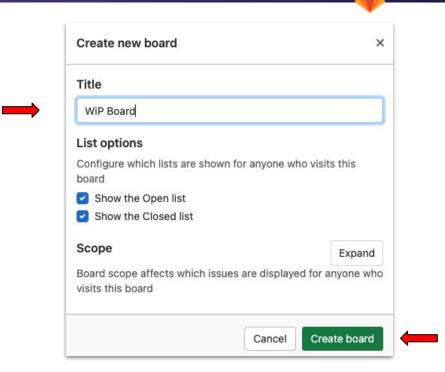
 Select the 'Switch board' menu→ 'Create new board' option.



# Name new project issue board

#### In the Create new board view:

- Enter a board title into the 'Title' field.
- 2. Select the 'Create board' button.



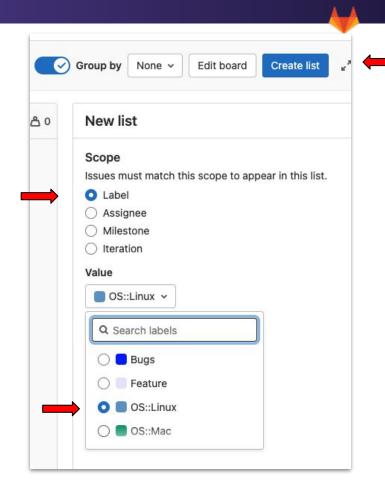
# Modify issue board scope

#### In the project Issue Board view:

- Select the 'Create list' menu→ 'Label' radio button.
- 2. Select 'Value' drop-down.
- Select a '<scoped label>'.
- Select the 'Add to board' button.

#### In the project Issue Board view:

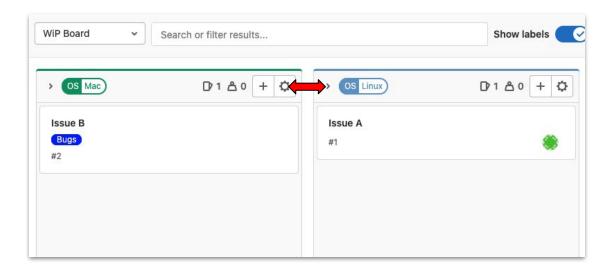
- Select the 'Create list' menu→ 'Label' radio button.
- 6. Select 'Value' drop-down.
- Select the '<other scoped label>'.
- 8. Select the 'Add to board' button.



#### Move board columns

### In the project Issue Board view:

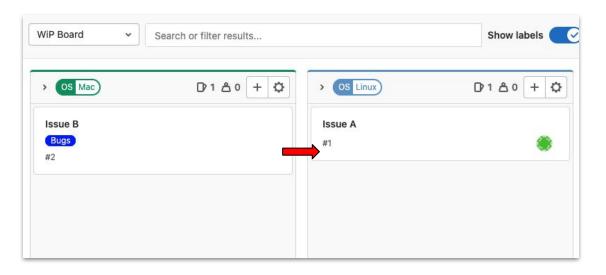
- Select and hold a '<scoped column>' and move it before/after the other "<scoped label>" column.
- Example: 'OS::Mac' before 'OS::Linux' column.



#### Move issue within board

#### In the project Issue Board view:

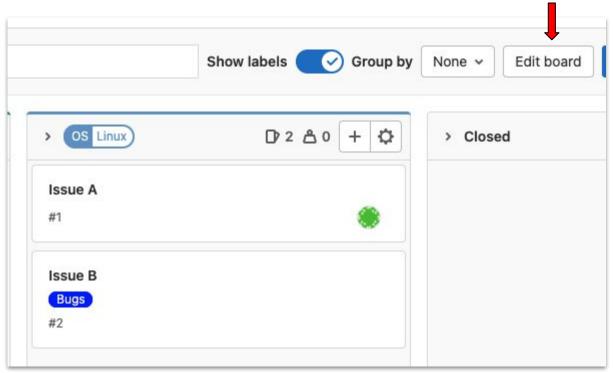
- Select and hold '<an issue>' and drag into the other '<scoped label>' column.
- Example: 'Issue A' into 'OS::Linux' column.



# Modify scope of existing issue board

#### In the project Issue Board view:

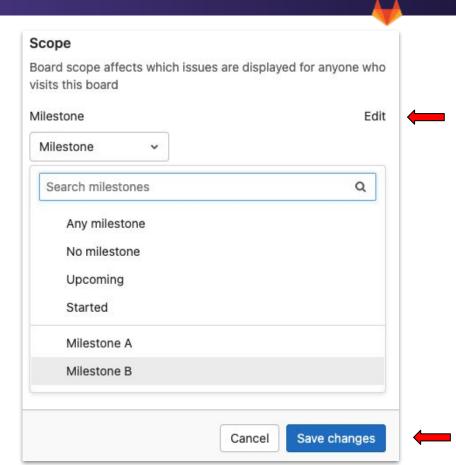
1. Select 'Edit board' button.



# Scope existing issue board to milestone

#### In the Edit board view:

- Select 'Edit' option for the 'Milestone' pane.
- Select 'Any milestone' option.
- Select the 'Save changes' button.





# Confirm scoping change to existing issue board

#### In the Issue Boards view:

Issue(s) matching selected milestone is/are displayed.





Thank you



**Create Stage**Gitlab Basics - Lab 2

# Lab Assignment Part 2

**Scenario:** Use CI features to branch from, modify, and integrate updates into a known repository state.

### Key Tasks to Complete

- 1. Review Issue
- 2. Create a MR
- 3. Open in Web IDE
- 4. Modify README.md file
- 5. Commit file changes
- 6. Resolve Draft Status
- 7. Merge changes

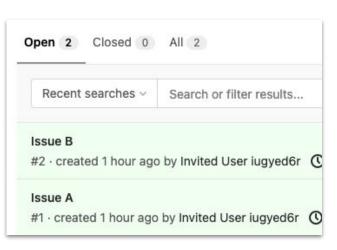
## Access project issues

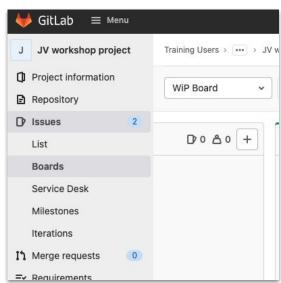
#### In the project repository:

1. Select 'Issues'.



Select '<any issue>'.





# Create a Merge Request from issue

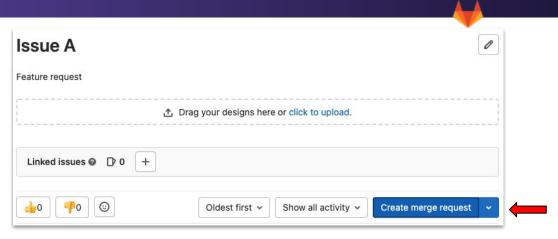
#### From Issues detail view:

Select 'Create merge request' button.

#### From your Merge Request view:

 Select 'Open in Web IDE' button.

FYI, the Merge Request (MR) is in "**Draft**" – it can not merged into a target baseline until the MR is marked as "**Ready**".





#### Access file from Web IDE

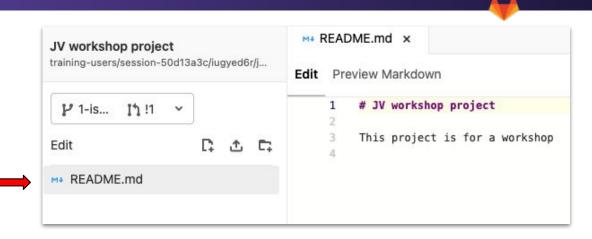
#### From the Web IDE view:

- Select 'README.md' from the list of project files.
- 2. File contents will be displayed in the edit pane.

#### From the Web IDE edit pane:

- Modify the contents of the 'README.md' file in the 'Edit' pane.
- 2. Example: "This line has been edited".
- 3. Select the 'Commit' button.

**Note:** Below the commit button it tracks the number of the files that you have changed





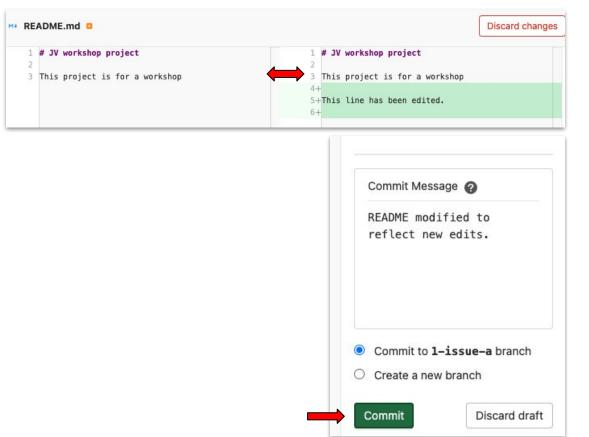
#### Web IDE: file diffs

#### From your Web IDE view:

1. Confirm before/after changes to file in a side-by-side view.

#### From your Web IDE view:

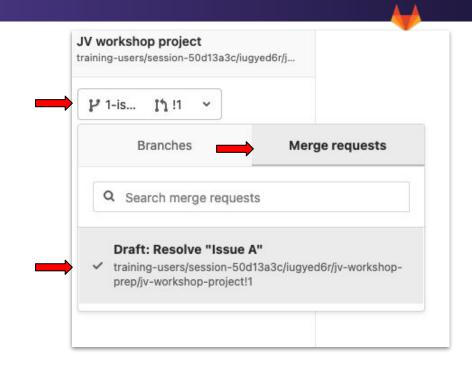
- 2. Add text to 'Commit Message' pane.
- Select the 'Commit' button.



#### Web IDE: consolidated content

#### From your Web IDE view:

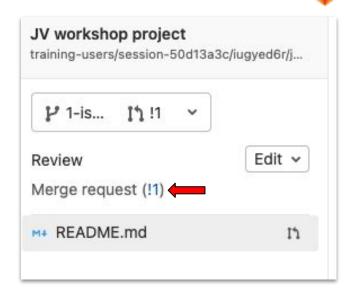
- Select the 'Branches/MR' drop-down menu.
- Select the 'Merge Requests' tab.
- 3. Select the Merge Request for this change.



#### Web IDE: return to MR

#### From your Web IDE view:

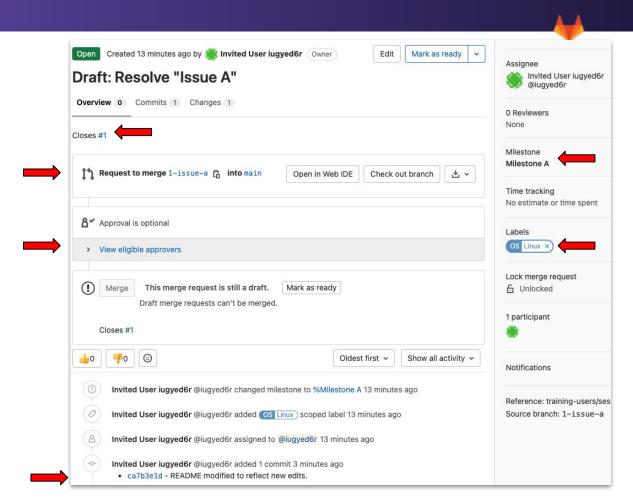
- 1. Select the hyperlinked '<!MR>'.
- 2. Example: '<!1>'.



#### MR details

# From the MR details view, confirm these key *automated* details.

- 1. Link with issue.
- 2. Branching/target links.
- 3. Approval information.
- 4. Inherited milestone association.
- Inherited labels.
- 6. Commit history.



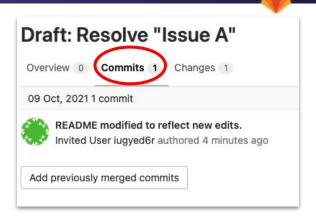
#### MR view: commit details

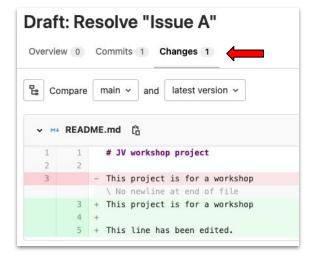
#### From the MR details view:

Select 'Commits' tab.

#### From the MR details view:

- Select 'Changes' tab.
- 2. Confirm before/after changes to file in red/green view.





# MR view: aggregated data

#### From the MR details view:

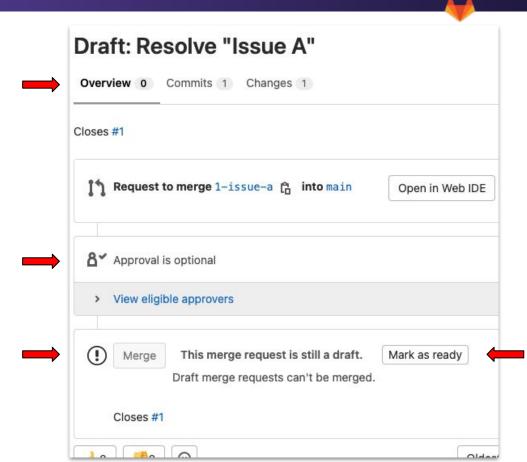
1. Select '**Overview**' tab.

# From the MR details view, confirm these key *automated* details.

- 2. **'Approval**' panel for status of outstanding approvals.
- 3. 'Merge' button is "grayed out" to prevent accidental merging of unfinished work.

#### From the MR details view:

4. Select the 'Mark as ready' button.



# MR view: ready for integration

# From the MR details view, confirm the MR is ready for integration.

- Banner alerts viewers of ability to merge this MR.
- 'Draft' prefix is dropped from MR title.
- 3. 'Merge' button is colored blue.

#### From the MR details view:

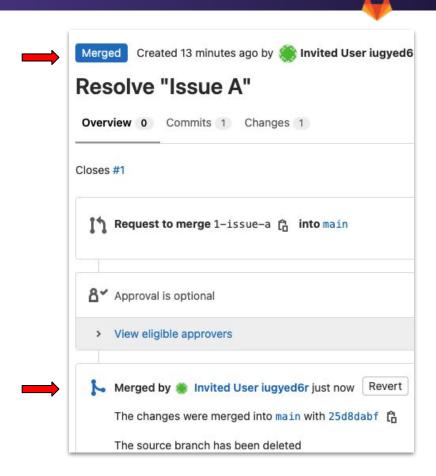
4. Select the 'Merge' button.



# MR view: merge changes

# From the MR details view, confirm the MR has been integrated.

- 'Merged' badge replaces
   'Open' badge.
- 'Merged by' reflects integrator and branch/target information.







Release Stage CI/CD

# Lab Assignment Part 3

**Scenario:** Create a *.gitlab-ci.yml* file to visualize an automated CI process.

#### Key Tasks to Complete

- 1. Create a .gitlab-ci.yml File
- 2. View the CI pipeline
- 3. Update the CI pipeline

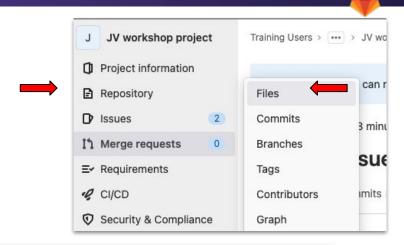
# Access repository files

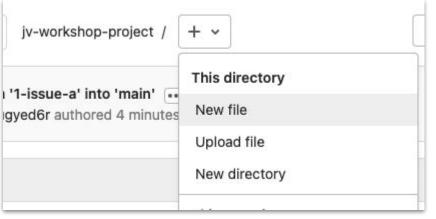
#### In the MR view:

1. Select **Repository**→**Files**.

#### In the repository file view:

2. Select the '+'  $\rightarrow$  'New file'





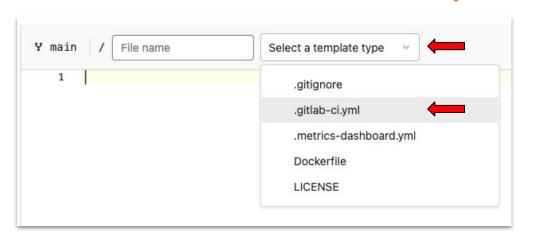
# Select file template type

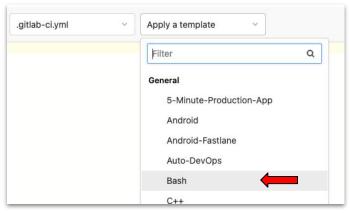
#### In the New file view:

Select the 'Select a template type' drop-down→
 '.gitlab-ci.yml' option.

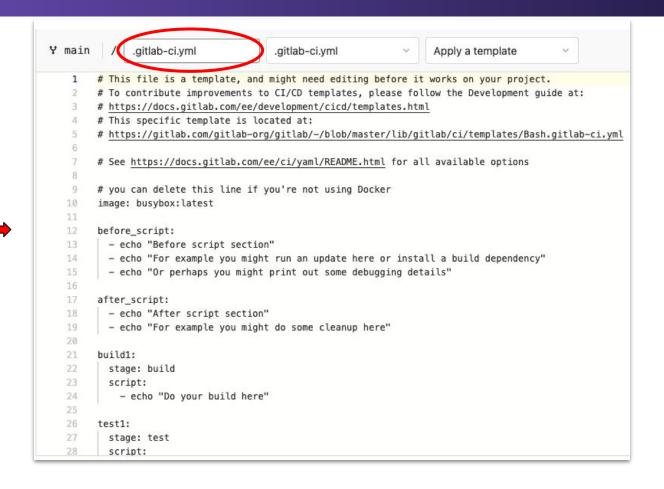
#### In the New file view:

2. Select the 'Apply a template' drop-down→ 'Bash' option.





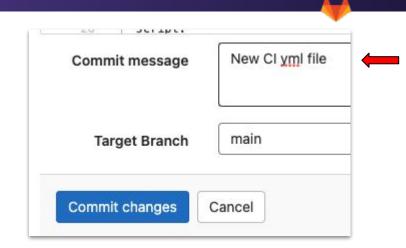
## File title and contents populated with template



# Add commit message

#### In the New file view:

- Enter <commit message text>
   into the 'Commit message'
   pane.
- 2. Select the 'Commit changes' button.

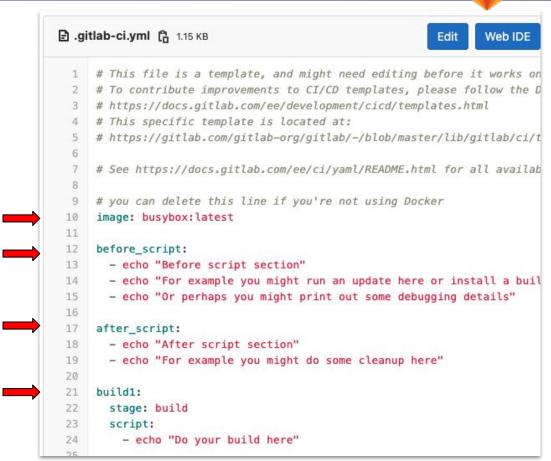




# Components of this .gitlab-ci.yml

# In the file view, confirm the following components.

- 1. Leverages Docker **image**.
- 2. 'before\_script' block.
- 3. 'after\_script' block.
- 4. Pipeline elements of 'stage' and 'script'.



# Access repository pipelines

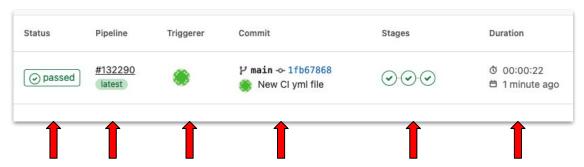
#### In the file view:

Select CI/CD→Pipelines.

#### In the Pipelines view:

- 2. Confirm the pipeline elements below.
  - Pipeline status.
  - Pipeline ID.
  - Pipeline triggerer.
  - Pipeline target.
  - Pipeline stages and status.
  - Pipeline time.





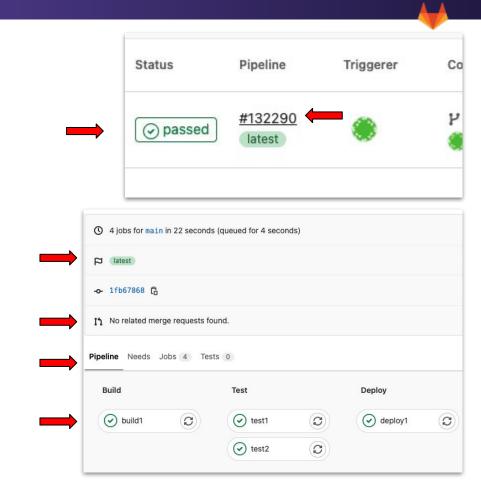
# Access pipeline details

#### In the Pipelines view:

- Select the '<pipeline status>' button, or
- Select the '<pipeline ID>' hyperlink.

#### In the pipeline view:

- **3.** Confirm the additional pipeline elements.
  - 'latest' flag,
  - Related merge requests.
  - Additional tabs for context.
  - Expanded pipeline view.



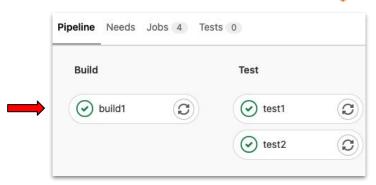
# Access job details

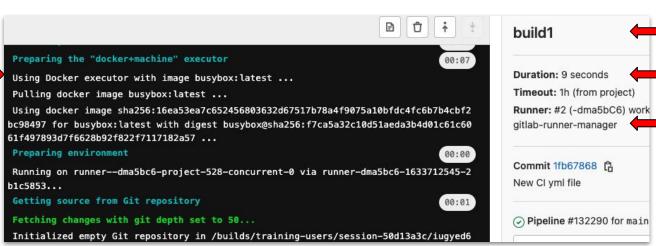
#### In the pipeline view:

 Select '<individual job>' button.

#### In the job view:

- 2. Confirm the following elements.
  - Job name.
  - Job duration and runner name.
  - Job artifacts (if avail.).
  - Pipeline stage drop-down.
  - List of pipeline jobs.
  - Terminal output.





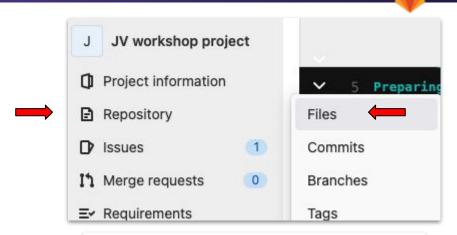
# Access repository files

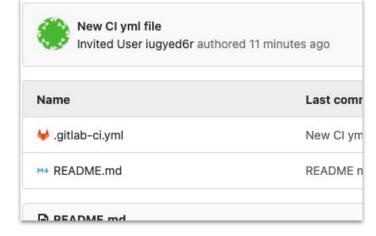
#### In the job view:

Select Repository→Files.

#### In the Repository files list view:

2. Select '.gitlab-ci.yml' file name.







# Open .gitlab-ci.yml file to edits

#### In the file content view:

1. Select the 'Edit' button.

#### In the file edit view:

2. Copy the contents of the 'test1:' element.

```
# This file is a template, and might need editing before it works on
# To contribute improvements to CI/CD templates, please follow the De
# thtps://docs.gitlab.com/ee/development/cicd/templates.html
# This specific template is located at:
# https://gitlab.com/gitlab-org/gitlab/-/blob/master/lib/gitlab/ci/templates.html
# See https://docs.gitlab.com/ee/ci/yaml/README.html for all available.
```

```
v build1:
       stage: build
23
       script:
         - echo "Do your build here"
25
26
   v test1:
27
       stage: test
28 V
       script:
       - echo "Do a test here"
         - echo "For example run a test suite"
30
31
   ∨ test2:
33
       stage: test
34 V
       script:
35
         - echo "Do another parallel test here"
```

# Modify the .gitlab-ci.yml file - part 1

#### In the file edit view:

- Scroll to the bottom of the file.
- 2. Insert a space after the last row in the file.
- 3. **Paste** the copied contents to the end of the *.gitlab-ci.yml* file.

#### In the file edit view:

4. Modify the pasted contents to reflect:

```
test3:
    stage: test
    script:
    - cat README.md
```

```
37
     deploy1:
38
        stage: deploy
        script:
40
         - echo "Do your deploy here"
41
42
43
      test1:
       stage: test
       script:
         - echo "Do a test here"
         - echo "For example run a test suite"
47
```

```
37
38
     deploy1:
39
        stage: deploy
        script:
40
41
          - echo "Do your deploy here"
42
43
     test3:
44
        stage: test
        script:
45
          - cat README.md
46
47
```

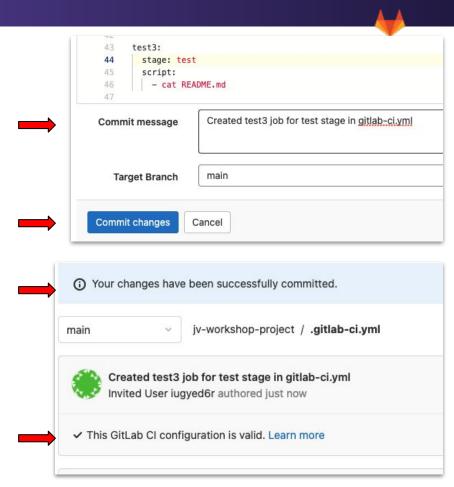
# Add commit message for .gitlab-ci.yml file

#### In the file edit view:

- Enter <commit message text>
   into the 'Commit message'
   pane.
- 2. Select the 'Commit changes' button.

#### In the file view:

- 3. Verify the following components.
  - Commit status message.
  - Configuration lint.



# Access repository pipelines

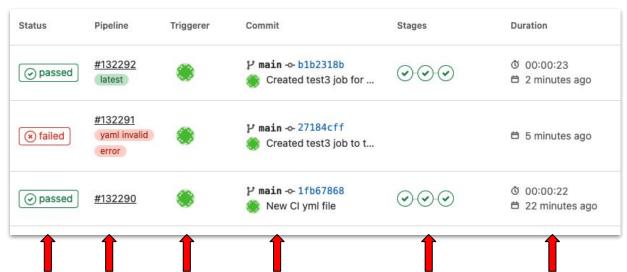
#### In the file view:

1. Select CI/CD→Pipelines.

#### In the Pipelines view:

- 2. Confirm updates to the following pipeline elements.
  - Pipeline status.
  - Pipeline ID.
  - Pipeline triggerer.
  - Pipeline target.
  - Pipeline stages and status.
  - Pipeline time.





## Access pipeline details

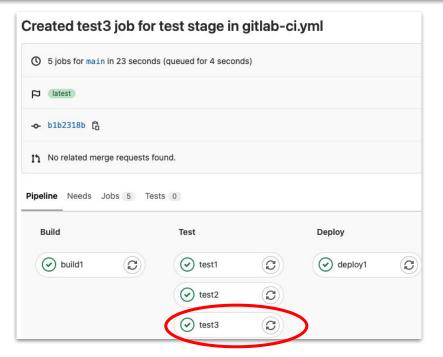
#### In the Pipelines view:

- Select the '<pipeline status>' button, or
- Select the '<pipeline ID>' hyperlink.

#### In the pipeline view:

- 3. Confirm the following pipeline elements.
  - Commit message listed.
  - Additional job added to "Test" stage.





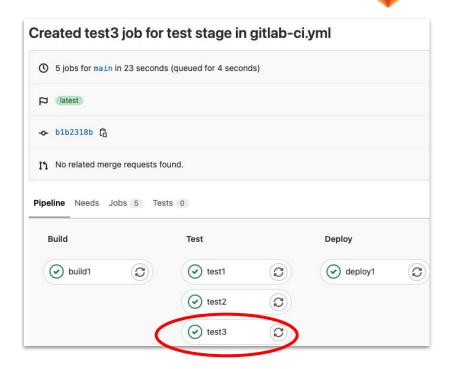
# Access job details

#### In the pipeline view:

 Select '<individual job>' button.

#### Example:

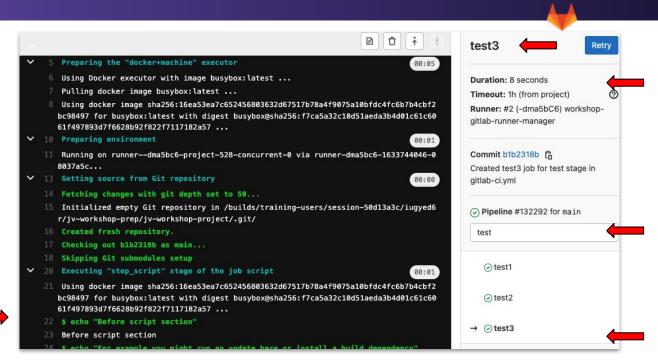
Select the 'test3' button.



#### Job details

#### In the job view:

- 1. Confirm the following elements.
  - Job name reflects added job.
  - Job duration and runner name.
  - Job artifacts (if avail.).
  - Pipeline stage drop-down. includes added job.
  - Terminal output reflects "script" for 'test3' job.



### Have fun!

- CI/CD example projects: <a href="https://docs.gitlab.com/ee/ci/examples/#cicd-examples">https://docs.gitlab.com/ee/ci/examples/#cicd-examples</a>
- CI/CD templates: <a href="https://docs.gitlab.com/ee/ci/examples/#cicd-templates">https://docs.gitlab.com/ee/ci/examples/#cicd-templates</a>

