



BUILDING A DEATH STAR

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Agenda

Demo

GitLab features

Bonus - GitLab HA on AWS

Q/A



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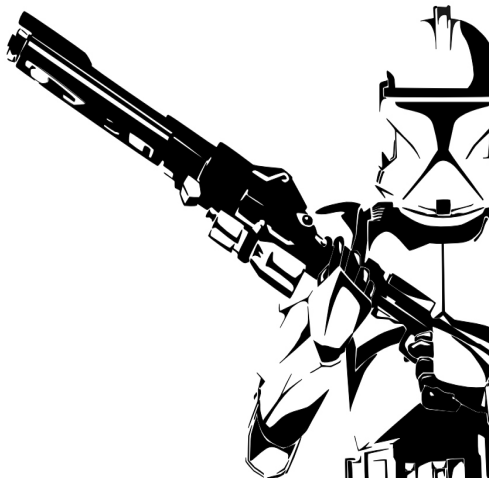
Agenda

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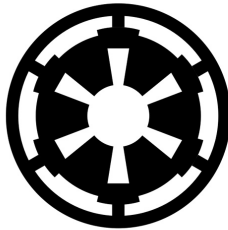
Q/A



Custom landing page



Empire GitLab



GitLab of the great Galactic Empire

Sign in	Register
Username or email	
<input type="text"/>	
Password	
<input type="password"/>	
<input type="checkbox"/> Remember me	Forgot your password?
<input type="button" value="Sign in"/>	

Didn't receive a confirmation email? [Request a new one.](#)



Nested groups

The screenshot shows the GitLab Projects page. At the top, there's a navigation bar with the GitLab logo, the word "Projects", a search bar, and several icons. Below the navigation bar, there's a banner for "Customize your experience" with a "Check it out" button. The main content area is titled "Your projects" and lists several projects under the "weapons" group. The projects are:

- weapons / stardust / blog**: Blog about Death Star, updated 3 weeks ago.
- utils / blog-deploy**: Docker image with scripts for deploying blog, updated 3 weeks ago.
- trainings / shooting-for-stormtroopers**: Shooting training for storm-troopers, updated 3 weeks ago.
- general / orders**: List of authorized orders, updated 3 weeks ago.
- general / nda**: NDA paper, updated 3 weeks ago.
- weapons / babywalkers / instructions**: Instructions how to take care about plans and blog, updated 3 weeks ago.
- weapons / babywalkers / blog**: Blog about AT-ST walkers, updated 3 weeks ago.
- weapons / babywalkers / plans**: Plans of AT-ST walkers, updated 3 weeks ago.
- weapons / walkers / instructions**: Instructions how to take care about plan and blog, updated 3 weeks ago.
- weapons / walkers / blog**: Blog about AT-AT walkers, updated 3 weeks ago.
- weapons / walkers / plans**: Plans of AT-AT walkers, updated 3 weeks ago.
- weapons / stardust / instructions**: updated 3 weeks ago.

On the right side of the page, there's a large, stylized black and white illustration of a Death Star.

Project main page

The screenshot shows the GitLab Project main page for the 'weapons / stardust / blog' project. The page layout includes a top navigation bar with the project name and a search bar. Below this is a secondary navigation bar with tabs for Project, Repository, Registry, Issues, Merge Requests, Pipelines, Wiki, Snippets, and Settings. The 'Project' tab is active, showing a profile picture of 'blog' and the description 'Blog about Death Star'. Below the profile information are buttons for Star, Fork, SSH, and a dropdown menu. The main content area displays a list of files and their commit history. The first commit is 'ebccff04' by 'Piotr Kurpiak' 2 weeks ago, with the message 'add posts'. The file list includes 'gitlabissue_templates', '_includes', '_layouts', '_posts', 'css', 'fonts/foundation-icons', 'images', 'js', and 'gitattributes'.

weapons / stardust / blog

This project Search

Project Repository Registry Issues 4 Merge Requests 0 Pipelines Wiki Snippets Settings

Home Activity Cycle Analytics

blog
Blog about Death Star

Star 0 Fork 0 SSH git@gitlab.empire.gov.cor:weapons

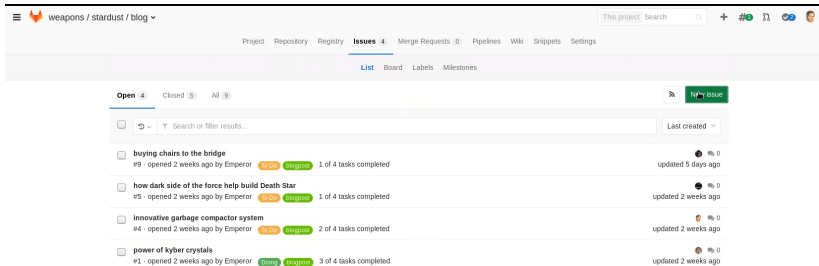
Files (539 KB) Commits (17) Branches (5) Tags (0) Readme CI configuration Add Changelog Add License Add Contribution guide

passed ebccff04 add posts · 2 weeks ago by Piotr Kurpiak

master blog

Name	Last commit > ebccff04 · 2 weeks ago · add posts History	Last Update
gitlabissue_templates	Update Blogpost.md	2 weeks ago
_includes	fix	2 weeks ago
_layouts	remove leftovers	2 weeks ago
_posts	add posts	2 weeks ago
css	blog init	2 weeks ago
fonts/foundation-icons	blog init	2 weeks ago
images	blog init	2 weeks ago
js	blog init	2 weeks ago
gitattributes	move signature setting to specific steps	2 weeks ago

Issues



weapons / stardust / blog

This project Search

Project Repository Registry **Issues 4** Merge Requests 0 Pipelines Wiki Snippets Settings

List Board Labels Milestones

Open 4 Closed 5 All 9

Search or filter results... Last created

- ☐ buying chairs to the bridge
#9 · opened 2 weeks ago by Emperor To Do In Progress 1 of 4 tasks completed updated 5 days ago
- ☐ how dark side of the force help build Death Star
#5 · opened 2 weeks ago by Emperor To Do In Progress 1 of 4 tasks completed updated 2 weeks ago
- ☐ innovative garbage compactor system
#4 · opened 2 weeks ago by Emperor To Do In Progress 2 of 4 tasks completed updated 2 weeks ago
- ☐ power of kyber crystals
#1 · opened 2 weeks ago by Emperor To Do In Progress 3 of 4 tasks completed updated 2 weeks ago

Issue templates

weapons / stardust / blog

This project: Search

Project Repository Registry **Issues 4** Merge Requests 0 Pipelines Wiki Snippets Settings

New Issue

Title: Choose a template

Description: **Write** **Preview**
Write a comment or drag your files here...
Markdown and slash commands are supported. Attach a file

☐ This issue is confidential and should only be visible to team members with at least Reporter access.

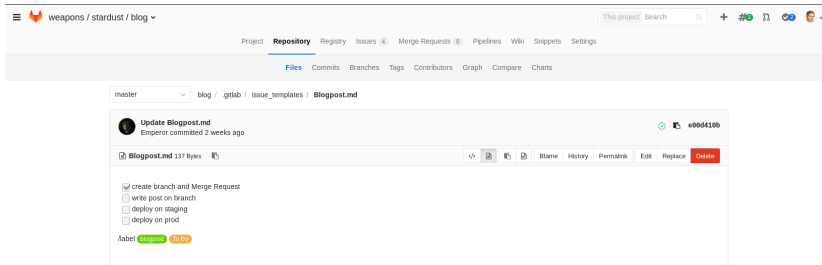
Assignee: Unassigned Assign to me Due date: Select due date

Milestone: Milestone


Labels: Labels

Submit issue Cancel

Issue templates



Webhooks

 weapons / stardust / blog

This project Search

[Project](#) [Repository](#) [Registry](#) [Issues](#) 4 [Merge Requests](#) 0 [Pipelines](#) [Wiki](#) [Snippets](#) **Settings**

[General](#) [Members](#) **Integrations** [Repository](#) [CI/CD Pipelines](#) [Pages](#)

Integrations

Webhooks can be used for binding events when something is happening within the project.

URL

Secret Token

Use this token to validate received payloads. It will be sent with the request in the X-Gitlab-Token HTTP header.

Trigger

- ☒ **Push events**
This URL will be triggered by a push to the repository
- ☐ **Tag push events**
This URL will be triggered when a new tag is pushed to the repository
- ☐ **Comments**
This URL will be triggered when someone adds a comment
- ☐ **Issues events**
This URL will be triggered when an issue is created/updated/merged
- ☐ **Confidential issues events**
This URL will be triggered when a confidential issue is created/updated/merged
- ☐ **Merge Request events**
This URL will be triggered when a merge request is created/updated/merged
- ☐ **Jobs events**
This URL will be triggered when the job status changes
- ☐ **Pipeline events**
This URL will be triggered when the pipeline status changes
- ☐ **Wiki Page events**
This URL will be triggered when a wiki page is created/updated

SSL verification

- ☒ **Enable SSL verification**

[Add webhook](#)

API

```
#!/usr/bin/python

from BaseHTTPServer import BaseHTTPRequestHandler, HTTPServer
import json
import requests

listen_port = 8080
gitlab_token = "be1ff5613a6ac---git"

class webhooks(BaseHTTPRequestHandler):
    def do_POST(self):
        log.debug('got post')
        message = {}
        self.rfile._sock.settimeout(5)
        data_string = self.rfile.read(int(self.headers['Content-Length']))
        self.send_response(200)
        self.send_header('Content-type', 'text')
        self.send_header('Content-length', str(len(message)))
        self.end_headers()
        self.wfile.write(message)
        log.debug('gitlab connection should be closed now')
        text = json.loads(data_string)
        if text['action'] == "issue":
            self.process_issue(text)

    def process_issue(self, text):
        if text['object_attributes']['action'] == "open":
            base_url = "http://gitlab.wikire.gov.cn/api/v4/projects/0/"
            text['object_attributes']['project_id'] =
            headers = {'PRIVATE-TOKEN': gitlab_token}
            newbranch = "{}-{}".format(
                text['object_attributes']['id'],
                text['object_attributes']['title'].lower().replace(" ", "-")
            )
            url = "{}/repository/branches".format(base_url)
            payload = {
                'branch': newbranch,
                'ref': "master"
            }
            requests.post(url, data=payload, headers=headers)
            # title = str(text['object_attributes']['title'])
            url = "{}/merge_requests".format(base_url)
            payload = {
                'source_branch': newbranch,
                'target_branch': "master",
                'title': "# {}".format(title)
            }
            requests.post(url, data=payload, headers=headers)

def main():
    try:
        server = HTTPServer(('', listen_port), webhooks)
        log.info('started web server...')
        server.serve_forever()
    except KeyboardInterrupt:
        log.info('ctrl pressed, shutting down.')
        server.socket.close()

if __name__ == '__main__':
    main()
```

Issue board

The screenshot shows the GitLab Issue Board for the project 'weapons / stardust / blog'. The board is organized into three columns: 'To Do' (4 items), 'Doing' (1 item), and 'Closed' (5 items). Each item is a card with a title, a status label (e.g., 'Stagnant'), and an assignee icon.

To Do (4)	Doing (1)	Closed (5)
how dark side of the force help build Death Star #5 Stagnant	power of kyber crystals #1 Stagnant	Plan for week 1548 #3 Stagnant
innovative garbage compactor system #4 Stagnant		Summary of week 1547 #2 Stagnant
buying chairs to the bridge #9 Stagnant		finish of thermal exhaust port #6 Stagnant
thermal exhaust port audit #10 Stagnant		project of tractor beam #7 Stagnant
		plan for week 1547 #5 Stagnant

Merge Requests

The screenshot shows a GitLab Merge Request (MR) titled "thermal exhaust port audit" for the "weapons / stardust / blog" project. The MR is opened by "GitLab User" and is currently open. The target branch is "10-thermal-exhaust-port-audit" and the source branch is "into master". A pipeline (#33) is running with stages for "data179c". The MR has a "Merge when pipeline succeeds" button and a "Remove source branch" checkbox. A discussion section shows a comment by Orson Krennic (@o.krennic) stating "data179c - new post" and a link to "Compare with previous version". The "Write" section is visible, showing a text area for comments and a "Comment" button. The "Close merge request" button is also present. On the right side, there is a sidebar with sections: "Todo", "Assignee" (No assignee - assign yourself), "Milestone" (None), "Time tracking" (No estimate or time spent), "Labels" (None), "2 participants" (o.krennic, GitLab User), "Notifications" (Unsubscribe), and "Reference: weapons/stardust/b...".

GitLab CI

weapons / stardust / blog

This project Search

Project Repository Registry Issues 5 Merge Requests 1 Pipelines Wiki Snippets Settings

Pipelines Jobs Schedules Environments Charts

All 25 Pending 0 Running 2 Finished 23 Branches Tags

Run Pipeline CI List

Status	Pipeline	Commit	Stages
running	#33 by	P 10-theraal-exh- -> daba179c new post	
passed	#32 by	P 10-theraal-exh- -> ebccff04 add posts	00:01:21 38 seconds ago
passed	#31 by	P master -> ebccff04 add posts	00:01:31 2 weeks ago
passed	#30 by	P 9-buying-chair- -> e0004100 Update Blogpost.md	00:01:26 2 weeks ago
passed	#29 by	P master -> e0004100 Update Blogpost.md	00:01:16 2 weeks ago
failed	#28 by	P 5-how-dark-sid- -> fbb1c835 Update Blogpost.md	00:01:43 2 weeks ago
passed	#27 by	P 4-innovative-g- -> fbb1c835 Update Blogpost.md	00:01:10 2 weeks ago
passed	#26 by	P 1-power-of-kyb- -> fbb1c835 Update Blogpost.md	00:01:15 2 weeks ago
running	#25 by	P 6-finish-of-th- -> fbb1c835 Update Blogpost.md	
passed	#24 by	P master -> fbb1c835 Update Blogpost.md	00:01:19 2 weeks ago


GitLab CI

```
gitlab-ci.yml 1.62 KB
Blame History Permalink Edit Replace Delete

1  image: "SCI_REGISTRY/utlis/blog-deploy"
2
3  variables:
4    BLOGNAME: deathstar.empire.gov.cor
5
6  stages:
7    - build
8    - deploy
9    - deploy_prod
10
11 build:
12   image: ruby/2.3
13   stage: build
14   variables:
15     GIT_STRATEGY: clone
16   before_script:
17     - curl -s https://packagecloud.io/install/repositories/github/git-lfs/script.deb.sh | bash
18     - apt-get install git-lfs
19     - gem install jekyll
20     - gem install jekyll-paginate
21   script:
22     - git -c http.sslverify=false lfs pull
23     - jekyll build
24   artifacts:
25     paths:
26       - _site
27
28 deploy_staging:
29   stage: deploy
30   environment:
31     name: "staging"
32     url: "http://staging.deathstar.empire.gov.cor.s3-website-eu-central-1.amazonaws.com/"
33   script:
34     - deploy.sh
35   only:
36     - master
37   dependencies:
38     - build
39
40 deploy_production:
41   stage: deploy_prod
42   environment:
43     name: "production"
44     url: "http://deathstar.empire.gov.cor/"
45   script:
46     - deploy.sh
47   only:
48     - master
49   when: manual
50
```



Container Registry

 utils / blog-deploy ▾

This project Search 🔍

+ # 🔔 ⚙️ 👤

Project Repository **Registry** Issues ⓘ Merge Requests ⓘ Pipelines Wiki Snippets Settings

A 'container image' is a snapshot of a container. You can host your container images with GitLab.
To start using container images hosted on GitLab you first need to login:

```
docker login registry.empire.gov.cor
```

Then you are free to create and upload a container image with build and push commands:

```
docker build -t registry.empire.gov.cor/utils/blog-deploy/image .  
docker push registry.empire.gov.cor/utils/blog-deploy/image
```

[utils/blog-deploy](#) 🔗

Tag	Tag ID	Size	Created
latest 🔗	b1290d695	28.8 MB · 5 layers	22 days
master 🔗	b1290d695	28.8 MB · 5 layers	22 days

Environments

weapons / stardust / blog

This project Search

Project Repository Registry Issues 5 Merge Requests 0 Pipelines Wiki Snippets Settings

Pipelines Jobs Schedules Environments Charts

Available 7 Stopped 2 [New environment](#)

Environment	Last deployment	Job	Commit	Updated
production	#13 by	deploy_production #100	ebccff84 add posts	2 weeks ago Re-deploy
<div>review 5</div> <div>review16-finish-of-thermal-exhaust-port review5-how-dark-side-of-the-force-help-build-death-star</div> <div>review1-power-of-kyber-crystals</div>				
			No deployments yet	
			No deployments yet	
	#9 by	deploy_review #87	fbb1c835 Update Blogpost.md	2 weeks ago Re-deploy
Show all				
staging	#12 by	deploy_staging #98	ebccff84 add posts	2 weeks ago Re-deploy



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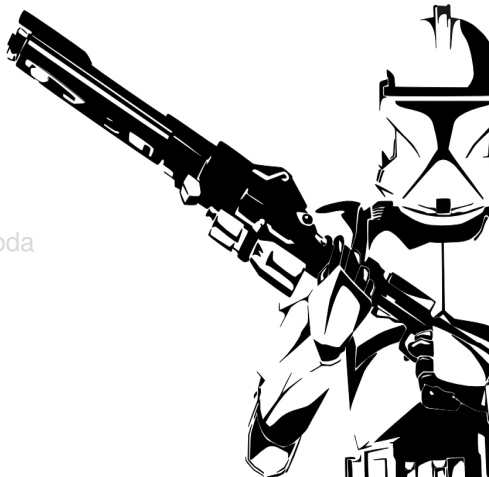
Bonus - GitLab HA on AWS

Q/A



GitLab on AWS - setup

- ▶ Frontend EC2s
- ▶ Storage EC2
- ▶ RDS
- ▶ ElastiCache (redis)
- ▶ Runners EC2s
- ▶ Runners autoscaling w/ Lambda
- ▶ Monitoring/Alarms
- ▶ CloudFormation



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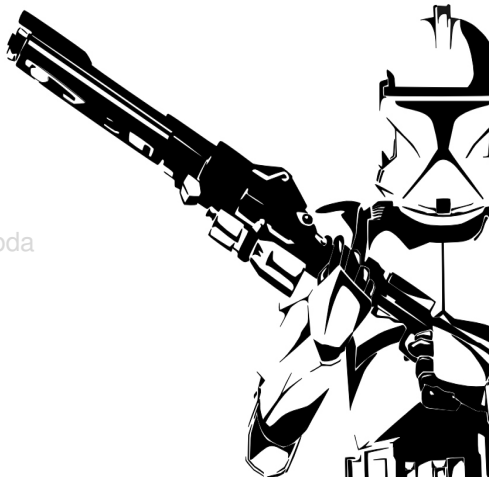
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