Tagging in Git and Releases

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- Managing releases in a repository
- Tagging in git

What are git tags?

Tags are **refs** that point to specific points in Git history. Tagging is generally used to capture a point in history that is used for a **_marked version release (i.e. v1.0.1)_**. A tag is like a branch that doesn't change. Unlike branches, tags, after being created, **_have no further history of commits_**.

When to create a tag in Git?

1. When you want to create a release point for a stable version of your code
2. When you want to create a history point for your code/data that you refer at any future time (to restore your data)

```
module "vpc" {
   source = "git::https://example.com/vpc.git?ref=v1.2.0"
}

module "vpc" {
   source = "git::https://example.com/vpc.git?ref=feature/EC-5350"
}
```

Git Basics - Tagging

Checkout the branch where you want to create the tag

```
git checkout "branch name"
example : git checkout master
```

Create tag with same name

```
git tag -a "tag name" -m "reference of commit"
git tag "tag name" "reference of commit"
example: git tag -a v1.0.0 -m "DevOps Easy Learning Website release v1.
0.0"
```

Display or Show tags

```
git tag
git show v1.0.0
```

Push tags to remote

```
git push -u origin <tag>
git push -u origin v1.0.0
```

Delete tags from local

```
git tag -d v1.0
git tag --delete v1.0
```

Delete tags from remote

```
git push -u origin -d v1.0
git push -u origin --delete v1.0
git push origin :v1.0
```

Delete multiple tags at once

```
git tag -d v1.0 v1.1 (local)
git push origin -d v1.0 v1.1 (remote)
```

Checking out TAGS

- We cannot checkout tags in git
- We can create a branch from a tag in Github (Example: feature/EC-2532) and run git pull

```
git branch -a
git pull
git checkout feature/EC-2532
```

Creating TAGS from past commits

```
git tag "tag name" "reference of commit"
example : git tag  v1.2 5fcdb03
```

DevOps Easy Learning tags

```
git tag -a v1.0.0 -m "DevOps Easy Learning Website release v1.0.0"
git tag
git push -u origin v1.0.0

git tag -a v1.1.0 -m "DevOps Easy Learning Website release v1.1.0"
git tag
git push -u origin v1.1.0
```

DevOps Easy Learning Website Releases

About: This is the description of the repository (DevOps Easy Learning Website)

Release Title: E-learning release v1.0.0

Release Description:

This is our v1.0.0 release of the DevOps Easy Learning Website. The following changes are included in this release:

- Sign up/Log in.
- Email.
- Upload and download.
- Payment, home, courses, contact, enroll
- Email and logo
- Course enrolment.
- Space for testimonies.
- Pop up for messages.
- Translation capability (one language to another).

Release Title: E-learning release v1.1.0

Release Description:

This is our v1.1.0 release of the DevOps Easy Learning Website. The following changes are included in this release:

- Dashboard
- Student and admin access
- Zoom integration for the online courses.
- Email reminder about payment and course progress.
- Google maps integration.
- Mobile responsive (website will be fully responsive,)
- Upload and download and course materials
- Able to enroll in the next section when another section is going on.
- Browsers testing