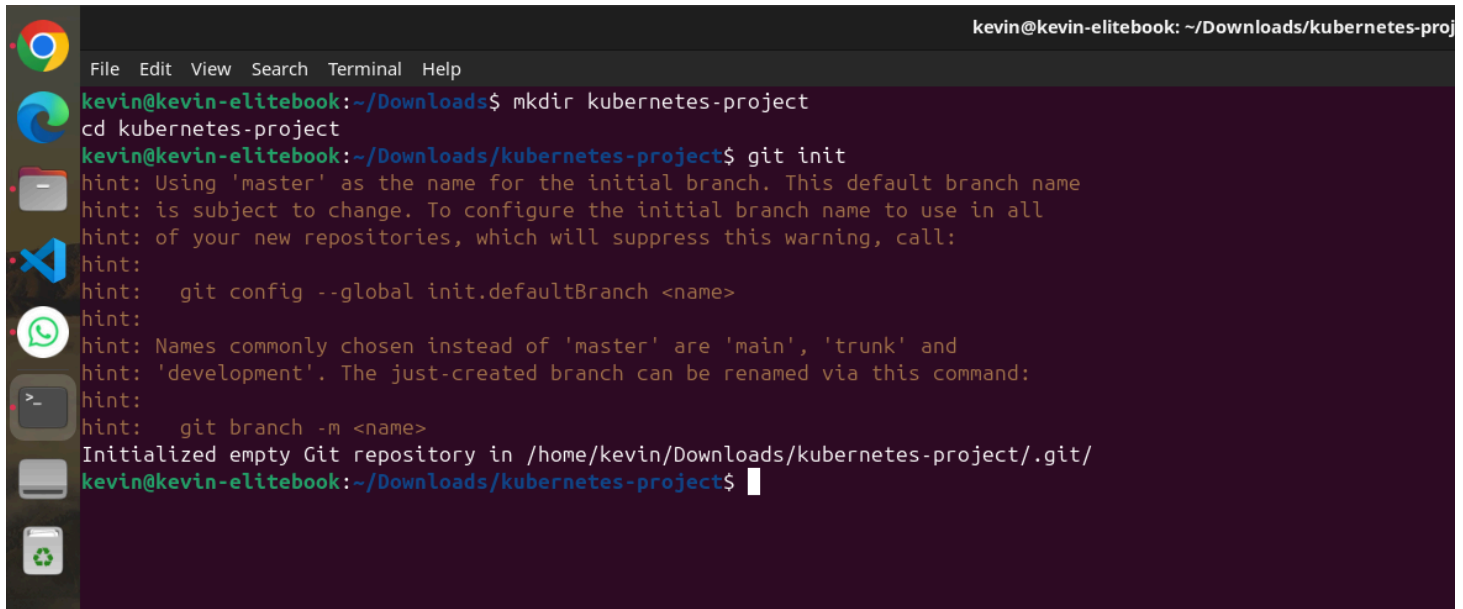## 1. Repository Initialization
- Created a new Git repository for the project.
- Set up the `main` branch as your production-ready baseline.


```
kevin@kevin-elitebook:~/Downloads$ mkdir kubernetes-project
cd kubernetes-project
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/kevin/Downloads/kubernetes-project/.git/
kevin@kevin-elitebook:~/Downloads/kubernetes-project$
```

```
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ echo "# Kubernetes Project" > README.md
git add README.md
git commit -m "Initial commit"
Author identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'kevin@kevin-elitebook.(none)')
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ ^C
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git config --global user.email "kevintandon123@gmail.com"
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git config --global user.name "kev0-4"
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git commit -m "Initial commit"
[master (root-commit) 9fef607] Initial commit
 1 file changed, 1 insertion(+)
 create mode 100644 README.md
kevin@kevin-elitebook:~/Downloads/kubernetes-project$
```
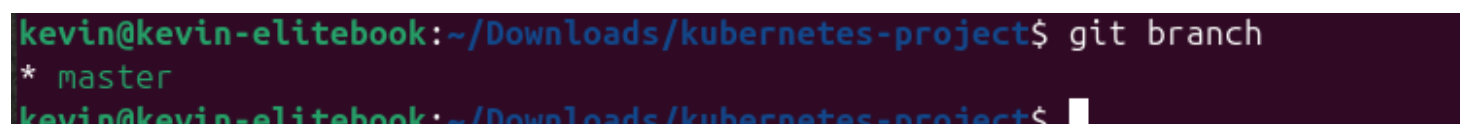
```
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git branch
* master
kevin@kevin-elitebook:~/Downloads/kubernetes-project$
```

2. Created the `develop` Branch
- Branched off `main` to start the integration branch (`develop`), where all feature work is accumulated before going into production.

```
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git branch
* master
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git checkout -b develop
Switched to a new branch 'develop'
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git branch
* develop
  master
kevin@kevin-elitebook:~/Downloads/kubernetes-project$
```

3. Developed a New Feature

- Created the branch `feature/add-kubernetes-support` from `develop`.
- Added a new module/file (`kubernetes_info.py`) with the function `about_kubernetes()`.

```
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git checkout -b feature/add-kube
Switched to a new branch 'feature/add-kubernetes-support'
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ nano kubernetes_info.py
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git add kubernetes_info.py
git commit -m "Add kubernetes_info.py with about_kubernetes function"
[feature/add-kubernetes-support 25ca3cf] Add kubernetes_info.py with about_kubernetes
 1 file changed, 2 insertions(+)
 create mode 100644 kubernetes_info.py
kevin@kevin-elitebook:~/Downloads/kubernetes-project$
```

4. Integrated the Feature

- Modified `main.py` to import and call the new Kubernetes function, ensuring the feature is usable and visible.
- Committed the changes on the feature branch.

```
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git add kubernetes_info.py
git commit -m "Add kubernetes_info.py with about_kubernetes function"
[feature/add-kubernetes-support 25ca3cf] Add kubernetes_info.py with about_kubernetes function
 1 file changed, 2 insertions(+)
 create mode 100644 kubernetes_info.py
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ nano main.py
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git add main.py
git commit -m "Integrate about_kubernetes function into main.py"
[feature/add-kubernetes-support 2a33b9e] Integrate about_kubernetes function into main.py
 1 file changed, 7 insertions(+)
 create mode 100644 main.py
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git checkout develop
Switched to branch 'develop'
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ git merge feature/add-kubernetes-support
Updating 9fef607..2a33b9e
Fast-forward
 kubernetes_info.py | 2 ++
 main.py            | 7 +++++++
 2 files changed, 9 insertions(+)
 create mode 100644 kubernetes_info.py
 create mode 100644 main.py
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ ls
kubernetes_info.py  main.py  README.md
kevin@kevin-elitebook:~/Downloads/kubernetes-project$ python3 main.py
Kubernetes is an open-source platform for automating deployment, scaling, and operations of application containers across clusters of hosts.
kevin@kevin-elitebook:~/Downloads/kubernetes-project$
```

5. Merged Feature Branch to Develop
- Merged `feature/add-kubernetes-support` into `develop`, following best practice for feature integration.
- Resolved (if needed) any conflicts and pushed the updated `develop` branch.

6. Tested the Integration
- On your `develop` branch, ran the code to confirm the new function works as intended.