

# Version Control, Shell Scripting and Remote Computing for Academic Research

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## 1. Create Codebase Folder and Files

```
mkdir bootcamp
cd bootcamp
touch main.py
touch file_copy.sh
```

### main.py

```
print("Pramil Paudel")
```

### file\_copy.sh

```
#!/bin/bash
python3 main.py
```

Optional:

```
chmod +x file_copy.sh
```

## 2. Create a repository on GitHub

- Create a new repository on GitHub.
- Find its remote URL (e.g., <https://github.com/pramil-paudel/bootcamp.git>).

## 3. Initialize git locally and push to GitHub

```
git init
touch README.md
git add README.md main.py file_copy.sh
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/pramil-paudel/bootcamp.git
git push -u origin main
```

## 4. Create New Branch

```
git checkout -b V_1.0.0
```

Update main.py:

```
print("Pramil_Paudel-Version 1.0.0")
```

```
git add main.py
git commit -m "Updated main.py for V_1.0.0"
git push -u origin V_1.0.0
```

## 5. Clone to Another Directory

```
cd /path/to/another/directory
git clone https://github.com/pramil-paudel/bootcamp.git
git checkout V_1.0.0
```

## 6. Collaborate with Your Friend

Give your friend access:

- Invite your friend as a collaborator on GitHub.

**Friend's workflow:**

1. Clone the repository:

```
git clone https://github.com/pramil-paudel/bootcamp.git
cd bootcamp
git checkout V_1.0.0
```

2. Edit main.py:

```
print("Friend's contribution - Version 1.0.0")
```

3. Push updates:

```
git add main.py
git commit -m "Added friend's contribution"
git push origin V_1.0.0
```