

Exercise 03

COMP2156 | DevOps for System Admin

1. Checklist of what must be done

By end of the week, students should have:

1. **GitHub Student Developer Pack** (**optional but strongly recommended**)
 - Apply at the Student Developer Pack page. ([GitHub](#))
 - Use their **GBC email** in the application.
2. **Azure for Students account**
 - Sign up at the Azure for Students page (no credit card, \$100 credit for a year for eligible students). ([Microsoft Azure](#))
3. **CI setup (either Travis CI or GitHub Actions)**

Option A – Travis CI:

 - Go to Travis CI sign-up and sign in with GitHub. ([app.travis-ci.com](#))
 - Authorize Travis CI to access their GitHub account.
 - Activate the comp2156 repo in Travis CI (search or use the green “Activate” button in the Travis UI).
 - Add an empty .travis.yml file to the repo:
*touch .travis.yml
git add .travis.yml
git commit -m "Add Travis CI config"
git push origin main*

Option B – GitHub Actions (no Travis / no credit card):

- In the comp2156 GitHub repo, create folder: .github/workflows/
- Add a file like .github/workflows/ci.yml with at least a minimal workflow, e.g.:

name: CI

*on:
push:
 branches: ["main"]
pull_request:
 branches: ["main"]*

*jobs:
build:
 runs-on: ubuntu-latest*

*steps:
- name: Checkout code
 uses: actions/checkout@v4

- name: Set up Node.js
 uses: actions/setup-node@v4*

*with:
node-version: '20'*

*- name: Install dependencies
run: npm install*

*- name: Run tests
run: npm test*

- Commit & push this file.
- Students can consult the official “Get started with GitHub Actions” docs for more context. ([GitHub Docs](#))

You can explicitly tell them: **“Use Travis CI or GitHub Actions. Don’t do both.”**

2. What screenshots they must submit

They should export all screenshots into **one document** (PDF or Word) and upload that, plus paste their repo link in the comments.

S1.jpg – Terminal showing all commands

What you probably want:

- A screenshot of the terminal showing (for example):
 - git clone (if applicable)
 - git status
 - git add
 - git commit
 - git push

commands used to create **.travis.yml** or **.github/workflows/ci.yml**

You could suggest they run something like:

*git status
git log --oneline --decorate --graph --all*

and then capture that output.

S2.jpg – Commit list from GitHub

Students should:

- Go to their repository on GitHub.
- Click on the **“Commits”** link/tab (usually under the branch name).
- Capture a screenshot that clearly shows:
 - Multiple commits
 - The commit messages and timestamps for this exercise

That screenshot becomes **S2.jpg**.

S3.jpg – CI dashboard (Travis CI or GitHub Actions)

If using **Travis CI**:

- Go to the Travis CI dashboard.
- Open the comp2156 project.
- Make sure at least one build has run (triggered by pushing **.travis.yml**).
- Screenshot the dashboard showing:

- The repo name
- The build status (green if passing, red is still acceptable for proof of setup)

If using GitHub Actions:

- Go to the repo on GitHub → **Actions** tab.
- Click the workflow (e.g., “CI”) and show at least one run.
- Screenshot the Actions run list / run details with:
 - Workflow name
 - Status (success or failure)
 - Commit/branch information

That screenshot becomes **S3.jpg**.

3. Deliverables summary

You can phrase the submission instructions like this:

Submit (as a single document):

1. **S1.jpg** – Screenshot of your terminal showing all git/CI-related commands you ran for this exercise.
2. **S2.jpg** – Screenshot of your GitHub commit history page for this repo.
3. **S3.jpg** – Screenshot of either:
 - Travis CI dashboard for your comp2156 repo, OR
 - GitHub Actions “Actions” tab showing at least one workflow run for your repo.
4. In the assignment **comment box**, paste your **GitHub repo URL**.

4. Nice-to-have: brief “If you get stuck” section (you can copy/paste)

If you want a short help block to append for students:

If you get stuck:

- Check the GitHub Student Developer Pack help pages if your education verification is pending. ([GitHub Docs](#))
- For Azure signup issues, review the “Azure for Students” offer details and requirements. ([Microsoft Azure](#))
- For Travis CI onboarding problems, follow the steps in Travis CI’s onboarding guide (sign up, authorize GitHub, activate repo). ([docs.travis-ci.com](#))
- For GitHub Actions, use the official “Get started with GitHub Actions” quickstart. ([GitHub Docs](#))
- Or email me at priteshe.patel2@georgebrown.ca with a description and screenshot of the problem.

```
MINGW64:/c/Users/owusu/comp2156
$ mkdir -p .github/workflows
$ touch .github/workflows/ci.yml
$ ls .github/workflows
ci.yml

$ nano .github/workflows/ci.yml
$ cat .github/workflows/ci.yml
name: CI

on:
  push:
    branches: [ "main" ]
  pull_request:
    branches: [ "main" ]

jobs:
  build:
    runs-on: ubuntu-latest
    steps:
      - name: Checkout code
        uses: actions/checkout@v4
      - name: Set up Node.js
        uses: actions/setup-node@v4
        with:
          node-version: '20'
      - name: Install dependencies
        run: npm install
      - name: Run tests
        run: npm test

$ 12:35 AM
2026-02-07
```

```
MINGW64:/c/Users/owusu/comp2156
$ git status
on branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  .github/
nothing added to commit but untracked files present (use "git add" to track)

$ ^C
$ git add .github/workflows/ci.yml
warning: in the working copy of '.github/workflows/ci.yml', LF will be replaced by CRLF the next time Git touches it

$ git commit -m "Add GitHub Actions CI workflow"
[main 70235c2] Add GitHub Actions CI workflow
 1 file changed, 27 insertions(+)
 create mode 100644 .github/workflows/ci.yml

$ git push origin main
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 22 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (5/5), 615 bytes | 307.00 KiB/s, done.
Total 5 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/willwise/COMP2156.git
  aid49fb..70235c2 main -> main

$ |
$ 12:36 AM
2026-02-07
```

The image displays two side-by-side screenshots of a GitHub repository interface, specifically for the repository `williwise/COMP2156`.

Top Screenshot (Actions):

- Header:** Workflow runs · williwise/COMP2156
- URL:** <https://github.com/williwise/COMP2156/actions>
- Left Sidebar (Actions):**
 - Code
 - Issues
 - Pull requests
 - Actions** (selected)
 - Projects
 - Wiki
 - Security
 - Insights
 - Settings
- Section Header:** All workflows
- Table:** 1 workflow run
- Row 1:** Add GitHub Actions CI workflow (Status: main, 1 minute ago, 8s)
 - Commit: CI #1: Commit 70235c2 pushed by williwise

Bottom Screenshot (Commits):

- Header:** Commits · williwise/COMP2156
- URL:** <https://github.com/williwise/COMP2156/commits/main/>
- Left Sidebar (Commits):**
 - Code
 - Issues
 - Pull requests
 - Actions**
 - Projects
 - Wiki
 - Security
 - Insights
 - Settings
- Section Header:** Commits
- Table:** main
- Row 1:** Add GitHub Actions CI workflow (Author: williwise, Date: Feb 7, 2026)
 - Commit ID: 70235c2
- Row 2:** added header for readme file (Author: williwise, Date: Feb 6, 2026)
 - Commit ID: a1d49f6