Canvas API Setup and Usage

This guide explains how to use the Canvas API to create assignments automatically.

Prerequisites

1. **Python 3** installed on your computer
2. **Canvas Personal Access Token**
3. **Canvas Course ID**

Step 1: Get Your Canvas Personal Access Token

1. Log into Canvas
2. Go to **Account → Settings**
3. Scroll down to **Approved Integrations**
4. Click **+ New Access Token**
5. Give it a purpose (e.g., "STAT 109 Assignment Creation")
6. Set an expiration date (optional)
7. Click **Generate Token**
8. **Copy the token immediately** - you won't be able to see it again!

Step 2: Find Your Course ID

1. Go to your STAT 109 course in Canvas
2. Look at the URL - it will be something like: `https://humboldt.instructure.com/courses/12345`
3. The number at the end (e.g., `12345`) is your Course ID

Step 3: Install Required Python Packages

```
pip install requests python-dateutil
```

Step 4: Configure the Script

Edit `create_canvas_assignment.py` and update these values at the top:

```
CANVAS_API_URL = "https://humboldt.instructure.com/api/v1"  # Your Canvas instance
COURSE_ID = "12345"  # Your course ID from Step 2
CANVAS_TOKEN = "your-token-here"  # Your token from Step 1
PUBLIC_SITE_URL = "https://roverhol.github.io/stat109-public"  # Already set correctly
```

Security Note: For production use, consider storing the token in an environment variable or config file that's in `.gitignore` rather than hardcoding it.

Step 5: Test with Lab 1

Run the script to create Lab 1 assignment:

```
python scripts/create_canvas_assignment.py --type lab --number 1
```

Or if you want to override the config values:

```
python scripts/create_canvas_assignment.py --type lab --number 1 --course-id 12345 --token your-token
```

What the Script Does

- Creates an assignment in Canvas with the correct name
- Sets the due date based on the schedule
- Adds a description with a link to the public course website
- Sets the assignment as **unpublished** by default (you can publish it in Canvas when ready)

Assignment Details Created

Labs

- **Name:** "Lab 1", "Lab 2", etc.
- **Due Date:** Tuesday at 11:59 PM (Week 2, 3, 4, etc.)
- **Submission Type:** Online upload and text entry
- **Link:** Points to `https://roverhol.github.io/stat109-public/labs/lab-1.html`

Quizzes

- **Name:** "Quiz 1", "Quiz 2", etc.
- **Due Date:** Thursday at 12:00 PM (beginning of lab)
- **Submission Type:** Online quiz
- **Link:** Points to `https://roverhol.github.io/stat109-public/quizzes/quiz-1.html`

Next Steps

After creating assignments: 1. Go to Canvas and review the created assignments 2. Adjust points, assignment groups, or other settings as needed 3. Publish assignments when ready 4. Add rubrics or additional instructions in Canvas if needed

Troubleshooting

Error: "Course ID is required" - Make sure you've set `COURSE_ID` in the script or used `--course-id`

Error: "Canvas token is required" - Make sure you've set `CANVAS_TOKEN` in the script or used `--token`

Error: 401 Unauthorized - Check that your token is correct and hasn't expired - Make sure you're using the correct Canvas API URL

Error: 404 Not Found - Check that your Course ID is correct - Verify the Canvas API URL is correct for your institution

Security Best Practices

1. **Don't commit your token to git** - add `scripts/.env` or similar to `.gitignore`
2. **Use environment variables** for sensitive data:

```
import os
CANVAS_TOKEN = os.getenv("CANVAS_TOKEN")
```

3. **Set token expiration dates** when creating tokens

4. **Use minimal permissions** - only create tokens with the permissions you need