

Codebase

https://github.com/Jyyunrin/group5_softwareengineering

Unit Testing

https://github.com/Jyyunrin/group5_softwareengineering/actions

https://github.com/Jyyunrin/group5_softwareengineering/blob/main/backend/fango/tests.py

CI/CD Pipeline

Pipeline Configurations:

- backend-ci.yml file in .github/workflows for Github Actions
- Jenkinsfile for Jenkins Configuration
- Ngrok to tunnel Jenkins CI to public domain to build upon github push using webhook

Benefits:

- Automated testing upon each push, faster alerts for if something is going wrong
- Clean environments and databases utilized to prevent any live data disruption
- Signals if pull request code passed all tests, good way of checking to see if pull requests are not broken and functionality remains intact

Screenshots:

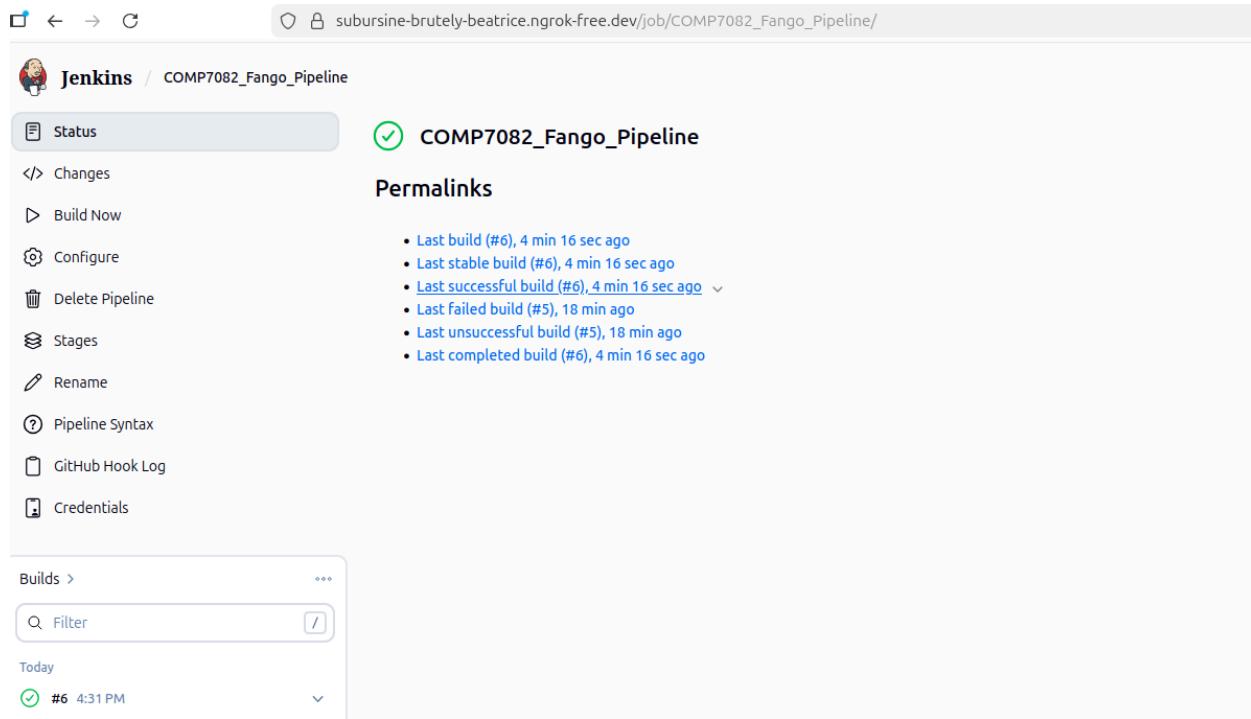
Github Actions:

The screenshot shows the GitHub Actions interface. On the left, there's a sidebar with navigation links like Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The main area is titled "All workflows" and shows "56 workflow runs". A search bar at the top right says "Filter workflow runs". Below the title, there's a table with columns for Event, Status, Branch, and Actor. The table lists several workflow runs, each with a green checkmark icon indicating success. The runs are: "Removed duplicate imports in test.py and fixed tests to use mock redis" (1 minute ago), "Fixed more tests to stop using hset, uses mock instead" (16 minutes ago), "Added cleanup stage to Jenkins" (30 minutes ago), "Modified jenkinsfile for troubleshooting" (35 minutes ago), "Pushed fix for tests to use mock redis since Jenkins ci container doe..." (37 minutes ago), "Jenkins troubleshooting" (Today at 3:05 PM), "Jenkins debugging" (Today at 2:56 PM), and "Final push" (Today at 2:53 PM). Each run includes a link to the commit and the user who pushed it.

Github Webhook to Jenkins (for automatic Jenkins building upon push):

The screenshot shows the GitHub Webhooks settings page. On the left, there's a sidebar with sections like General, Access, Collaborators, Moderation options, Code and automation, Branches, Tags, Rules, Actions, Models, Webhooks (which is selected and highlighted in blue), Copilot, Environments, Codespaces, Pages, Security, Advanced Security, Deploy keys, Secrets and variables, Integrations, GitHub Apps, Email notifications, and Autolink references. The main area is titled "Webhooks / Manage webhook". It has tabs for "Settings" and "Recent Deliveries". A note in the settings tab says: "We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation." Below this, there are fields for "Payload URL *" containing "https://subursine-brutely-beatrice.ngrok-free.dev/github-webhook/" and "Content type *" containing "application/json". There's also a "Secret" field with a placeholder "Placeholder for secret key". Under "SSL verification", there's a note about verifying certificates and two radio buttons: "Enable SSL verification" (selected) and "Disable (not recommended)". A section titled "Which events would you like to trigger this webhook?" has three radio button options: "Just the push event.", "Send me everything.", and "Let me select individual events.". At the bottom, there's a checked checkbox for "Active" with the sub-note "We will deliver event details when this hook is triggered."

Jenkins running on Ngrok public URL linked to Github webhook:



The screenshot shows the Jenkins interface for the 'COMP7082_Fango_Pipeline' job. The top navigation bar includes links for 'Status', 'Changes', 'Build Now', 'Configure', 'Delete Pipeline', 'Stages', 'Rename', 'Pipeline Syntax', 'GitHub Hook Log', and 'Credentials'. The main content area displays the status as 'Status' with a green checkmark icon and the text 'COMP7082_Fango_Pipeline'. Below this, a 'Permalinks' section lists several build links. A 'Builds' section shows the last build (#6) was successful, completed 4 min 16 sec ago. A 'Filter' input field is present, along with a date range from 'Today' and a specific build link '#6 4:31 PM'.

Project Report

https://docs.google.com/document/d/1E1aWXMLkbewVCaDVOCq7Qm58EuBWLapHbfynIA66_fY/edit?usp=sharing

Code Reviews

https://github.com/Jyyunrin/group5_softwareengineering/pulls?q=is%3Apr+is%3Aclosed