Experiment No. 4

Title:

Provisioning and Scaling a Website Using Codenvy.

Objective:

To demonstrate the provisioning and scaling of a website using Codenvy, an integrated development environment (IDE) for cloud-based projects.

Tools used:

Codenvy, Internet, Web Browser

Prerequisite:

Basic understanding of website development, infrastructure provisioning, and scaling concepts.

Theory:

Codenvy is a cloud-based development environment that allows collaborative coding, debugging, and deployment of applications. It provides a platform for teams to work together on projects, offering support for various programming languages and integration with version control systems like Git. With Codenvy, users can develop and deploy applications without worrying about setting up individual development environments.

Steps to Setup and Demonstrate Provisioning and Scaling:

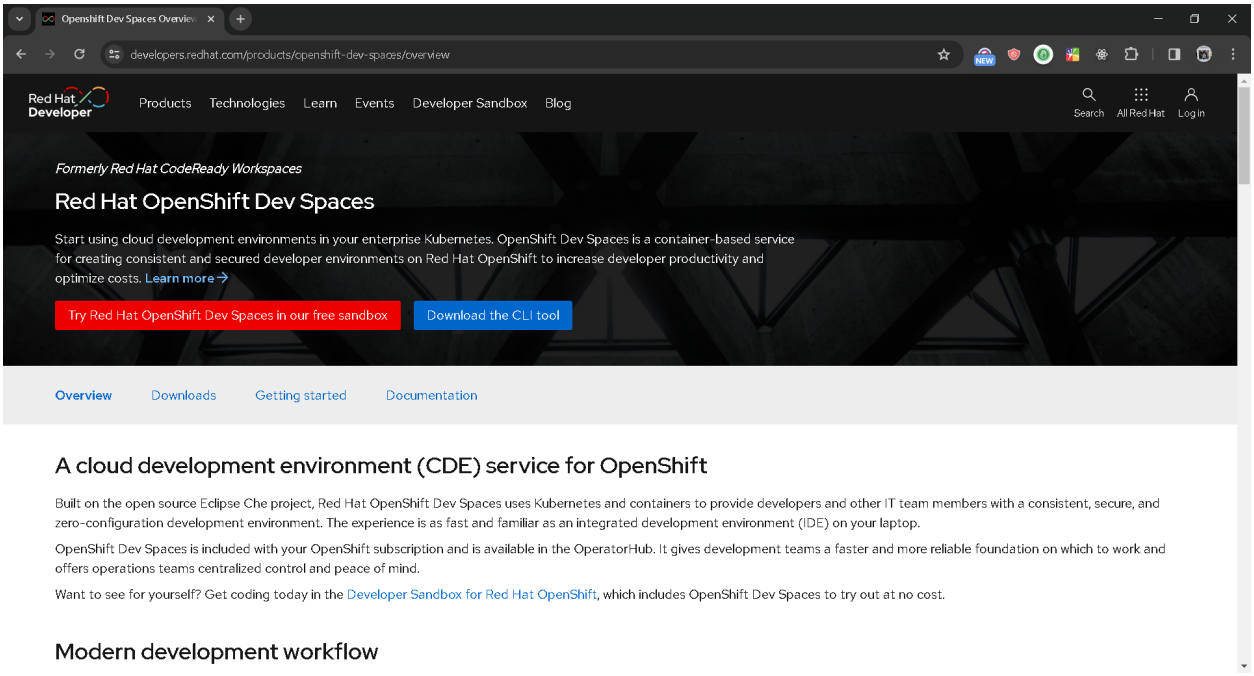
To access Codenvy, visit Codenvy's website www.codenvy.com But it is taken over by

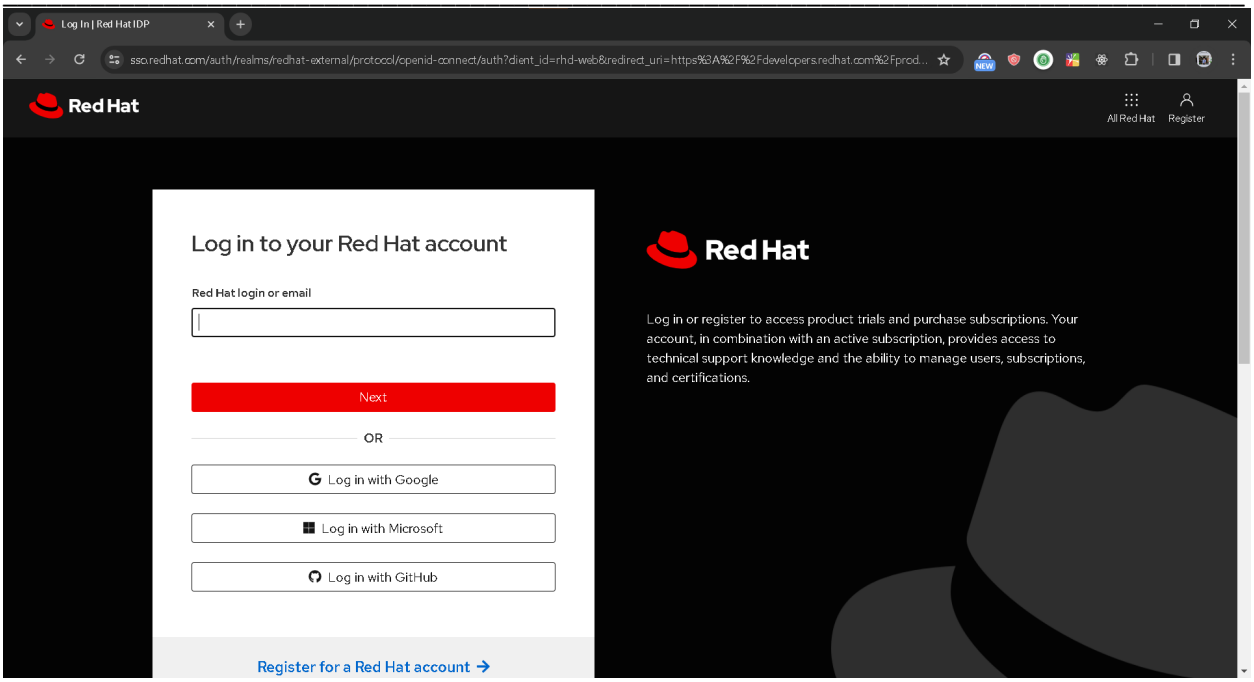
www.developers.redhat.com/products/openshift-dev-spaces/overview/

Once logged in, you can create a workspace and perform the steps mentioned above within the Codenvy interface.

Step 1: Sign in to Codenvy

- Access the Codenvy platform using your credentials via a web browser.

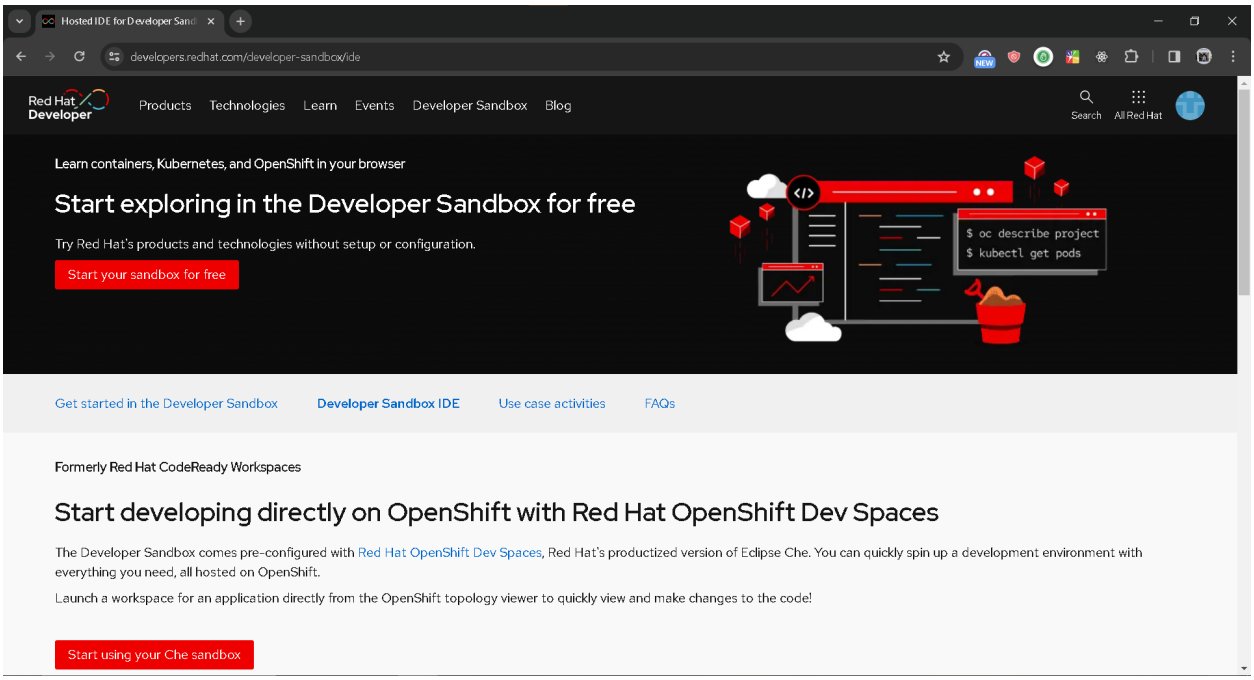




Step 2: Create a New Workspace

- Create a new workspace within Codenvy for your website project.

- Select the appropriate stack/environment based on your website's technology stack(ex-php,etc)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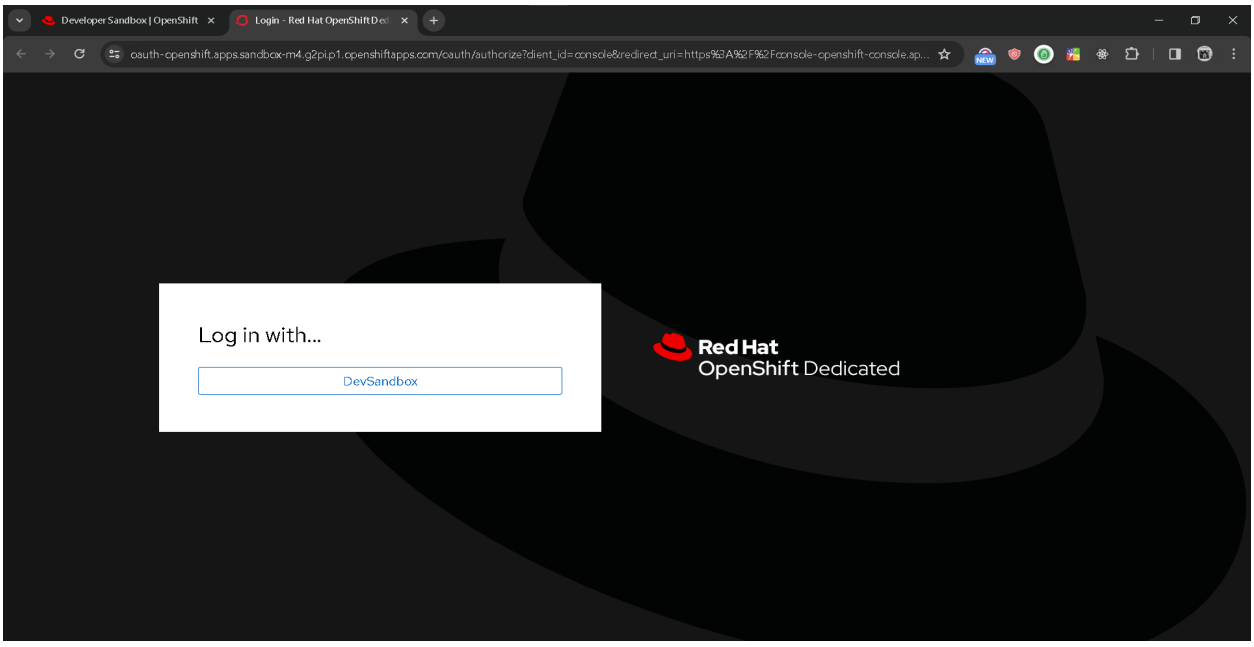
The Developer Sandbox comes pre-configured with Red Hat OpenShift Dev Spaces, Red Hat's productized version of Eclipse Che. You can quickly spin up a development environment with everything you need, all hosted on OpenShift.
Launch a workspace for an application directly from the OpenShift topology viewer to quickly view and make changes to the code!
Start using your Che sandbox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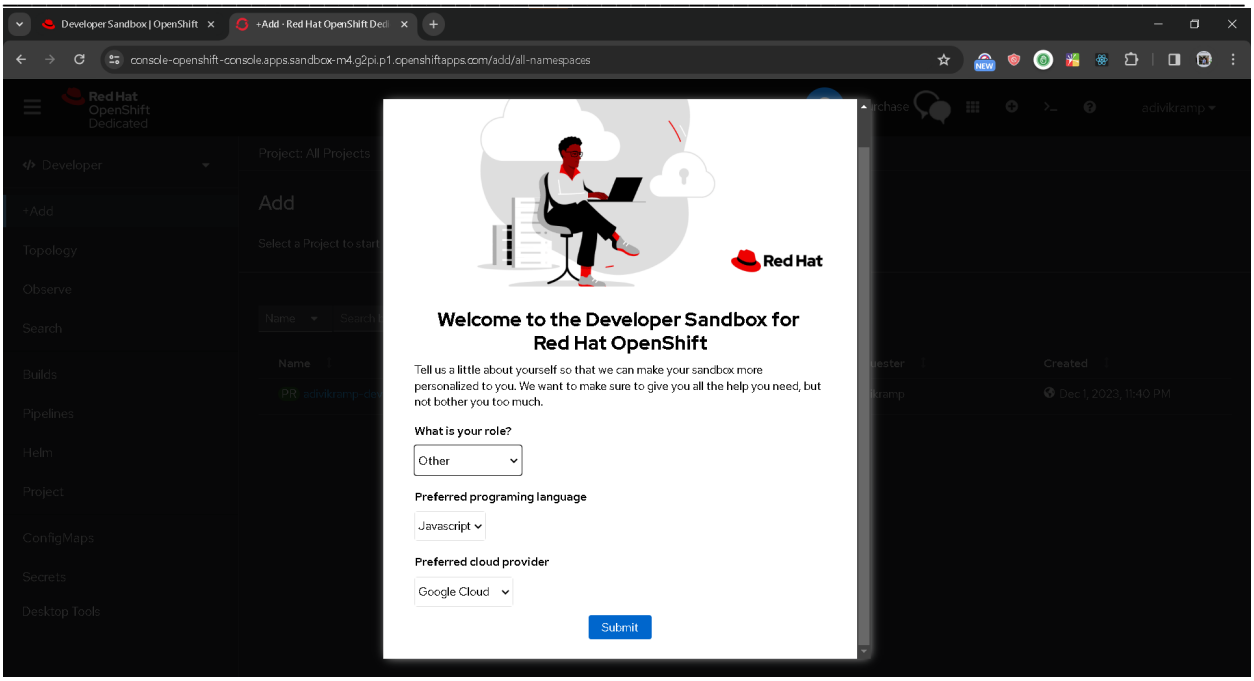
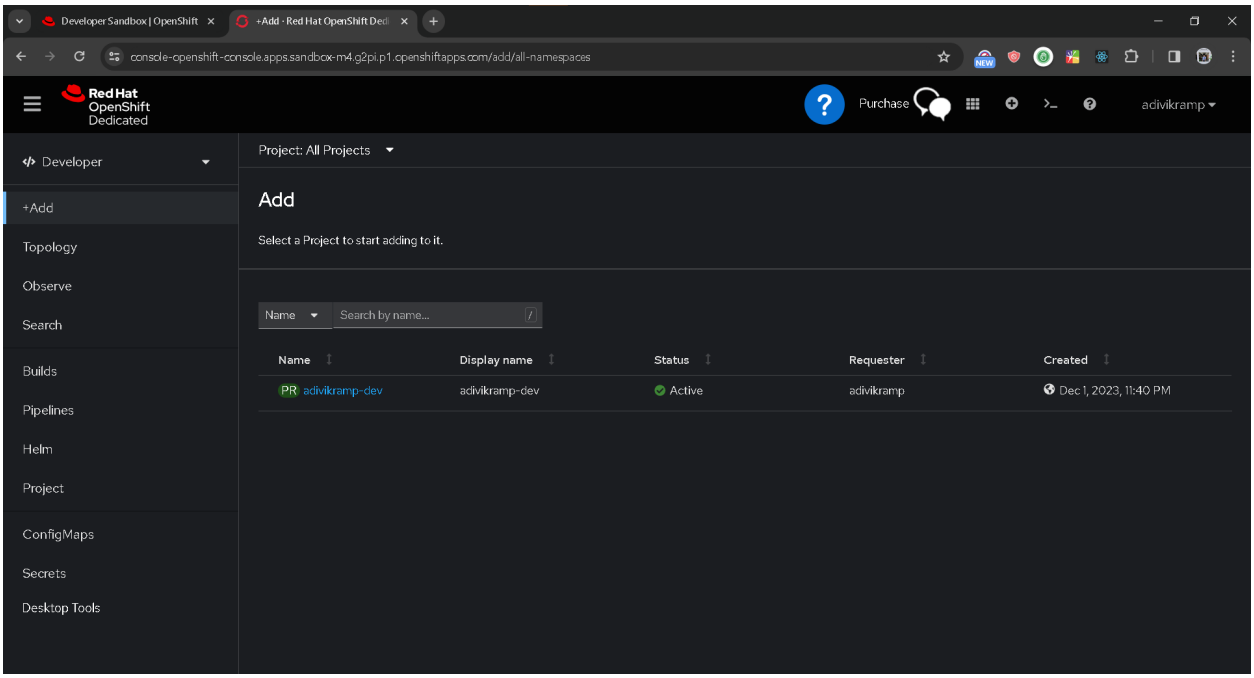
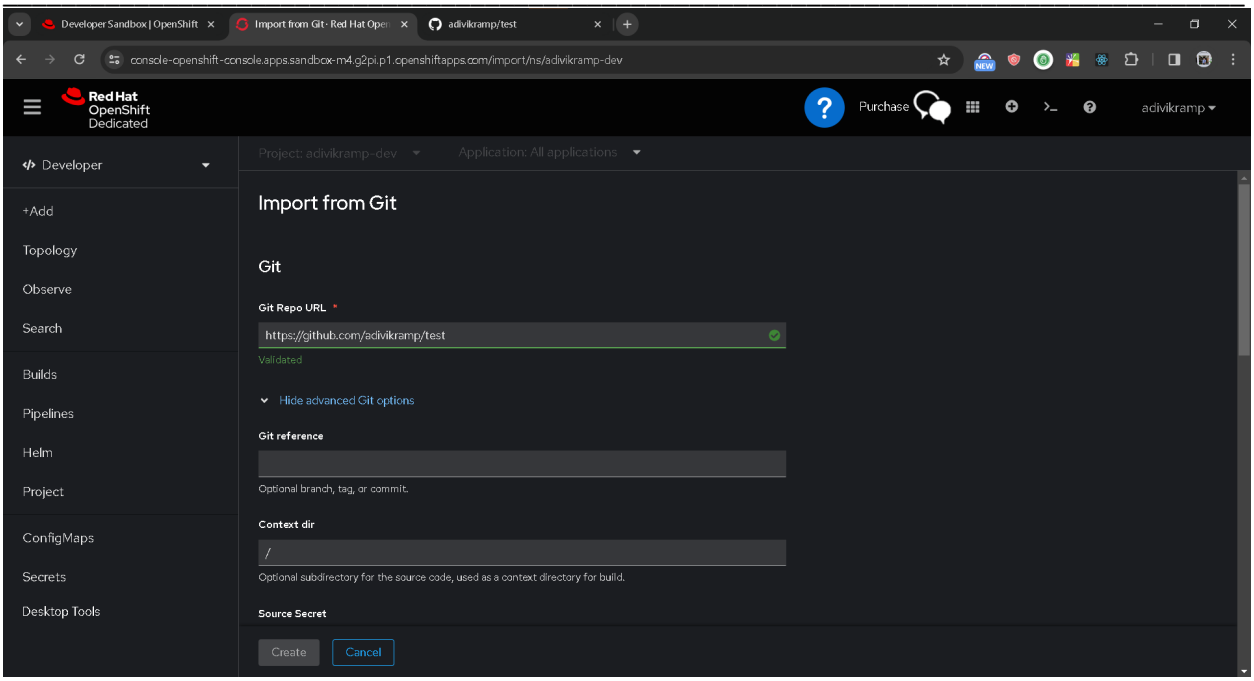


Step 3: Code Development

- Develop or import the website/application code into the Codenvy workspace.

- Ensure the code is functional and works within the Codenvy environment.

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Project: adivikramp-dev
Application: All applications
Import from Git
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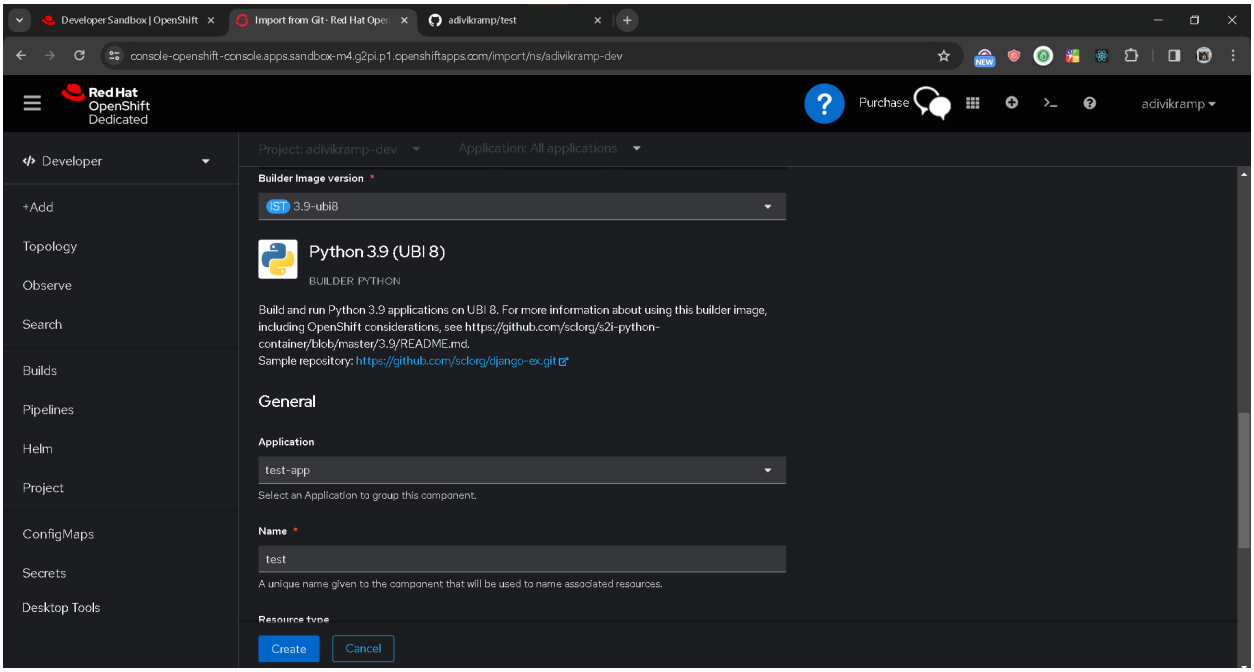
Git Repo URL *
https://github.com/adivikramp/test
Validated
Hide advanced Git options
Git reference
Optional branch, tag, or commit.
Context dir
/
Optional subdirectory for the source code, used as a context directory for build.
Source Secret
Create
Cancel

Step 4: Containerization (Optional)

- Dockerize the application if not already containerized.

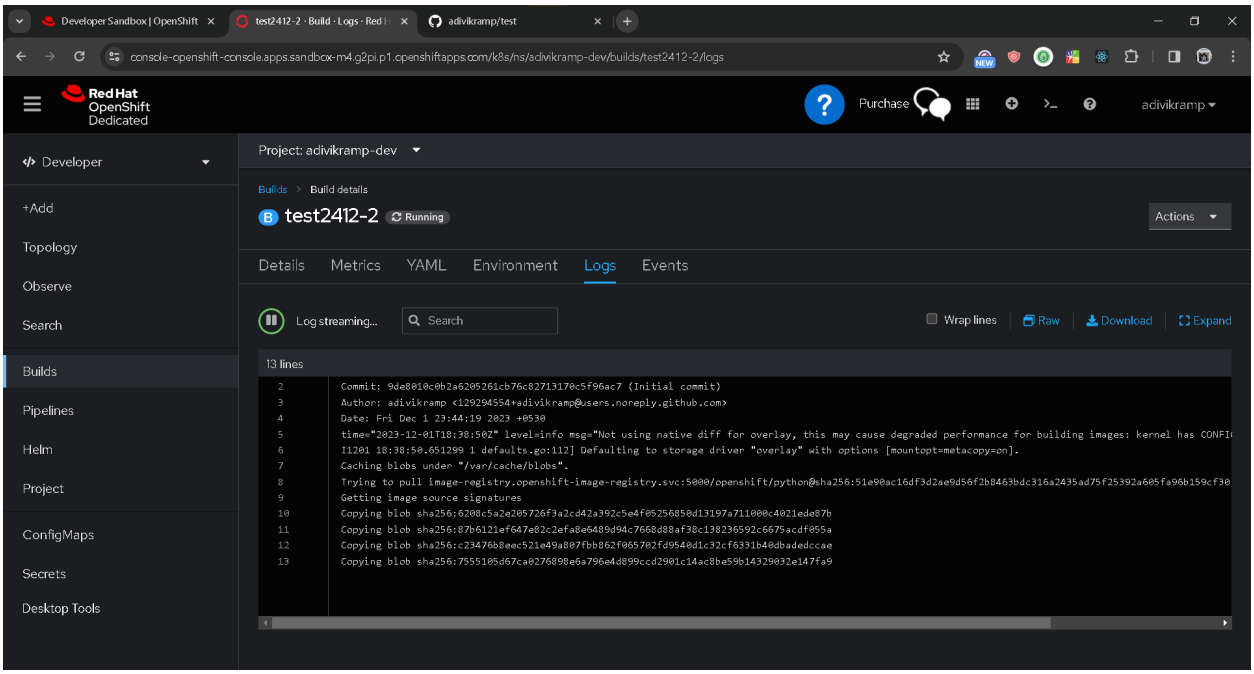
- Create a Dockerfile within the Codenvy workspace and build the Docker image if needed.

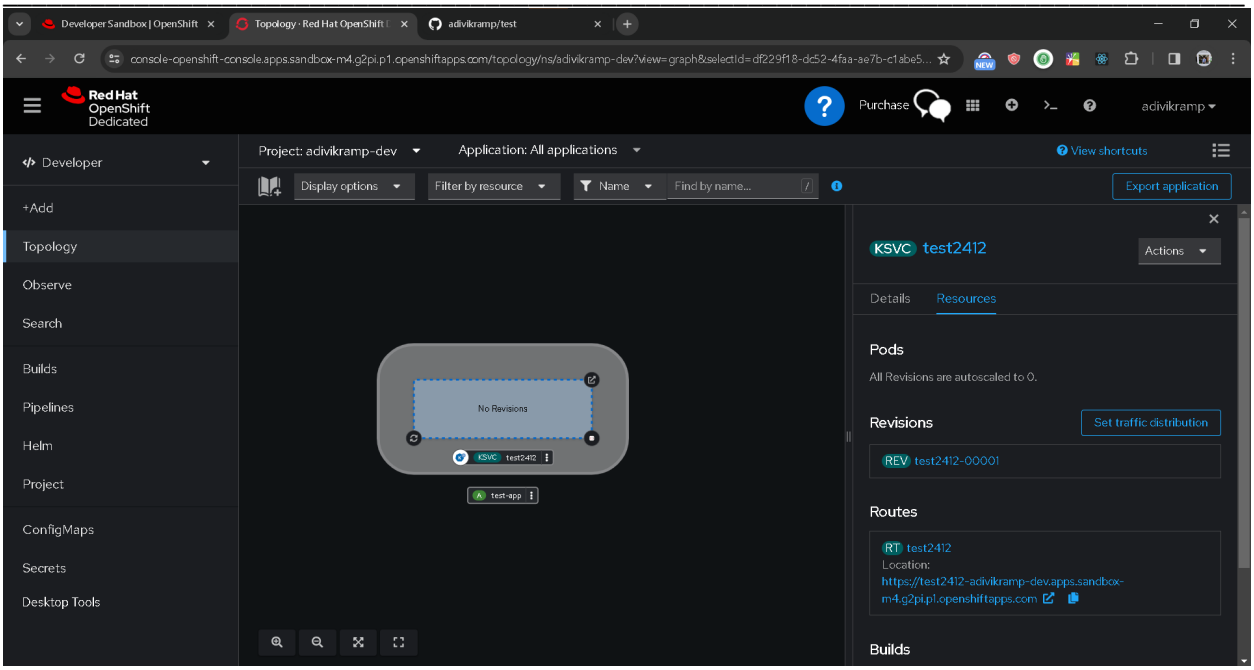


Step 5: Deployment

- Deploy the website/application within the Codenvy workspace.

- Verify the successful deployment and functionality of the website.

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Developer
Project: adivikramp-dev
Application: All applications
View shortcuts
Display options
Filter by resource
Name
Find by name...
Export application
+Add
Topology
Observe
Search
Builds
Pipelines
Helm
Project
ConfigMaps
Secrets
Desktop Tools
No Revisions
KSVC test2412
test-app
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Actions
Details
Resources
Pods
All Revisions are autoscaled to 0.
Revisions
Set traffic distribution
REV test2412-00001
Routes
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Location:
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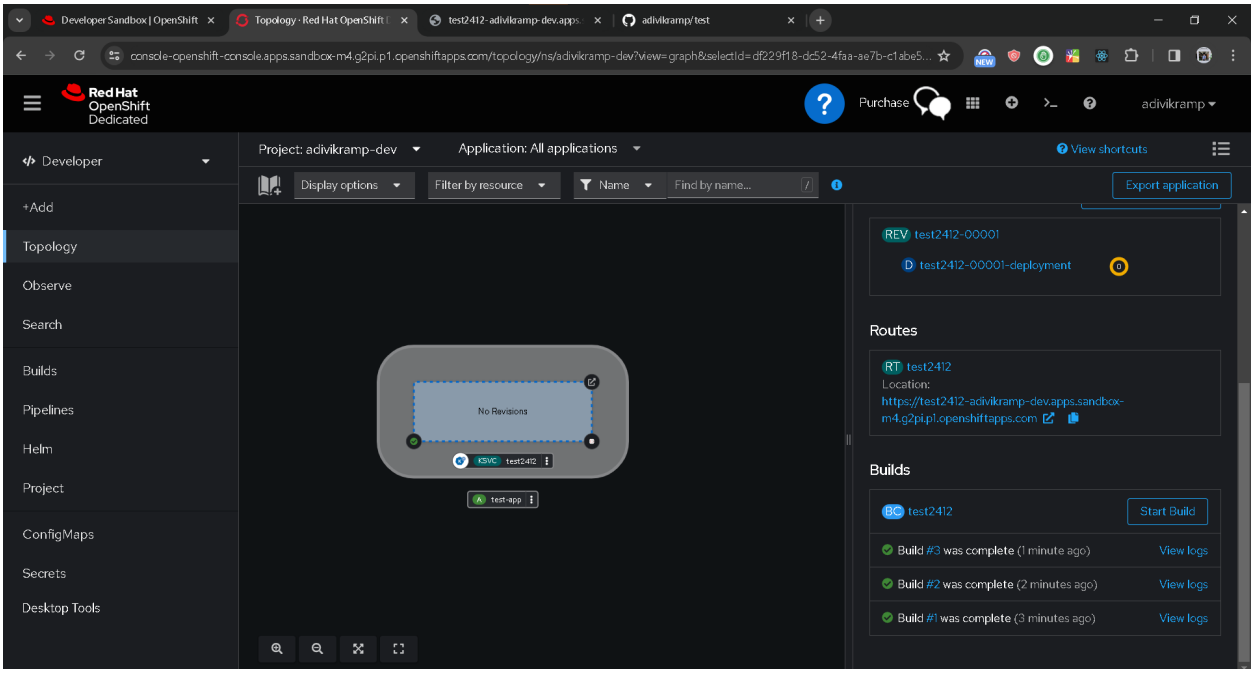
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test2412-adivikramp-dev.apps
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adivikramp
Developer
Project: adivikramp-dev
Application: All applications
View shortcuts
Display options
Filter by resource
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Routes
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Builds
BC test2412
Start Build
Build #3 was complete (1 minute ago)
View logs
Build #2 was complete (2 minutes ago)
View logs
Build #1 was complete (3 minutes ago)
View logs

Conclusion:

Successfully demonstrated the provisioning and scaling of a website using Codenvy. This experiment highlighted the process of setting up a development environment, deploying a website, and dynamically adjusting resources to accommodate varying loads, ensuring efficient performance under different conditions.