



Lab 4: Add PagerDuty Integration

Objective

This lab show how to integrate your toolchain with PagerDuty so teams get notified when things go wrong so problems can be fixed faster and reduce downtime.

Prerequisites

If you want to see email notifications from PagerDuty, you will need access to an eMail account. Once the integration is created, you can check that account to accept the invitation to join PagerDuty and to see alerts from PagerDuty.

Tasks:

- [Task 1: Add PagerDuty to Toolchain](#)
- [Task 2: Verify PagerDuty works by breaking application build](#)
- [Task 3: Fix application](#)

Task 1: Add PagerDuty to Toolchain

As a developer or operations person, you may want to be notified of the status of code deployments. One way to be alerted is to integrate third-party tools such as [PagerDuty](#). IBM Bluemix has made it easy to add PagerDuty integration into a Toolchain so the teams such as development or operations are notified of the status of deployments.

Note: The PagerDuty integration feature is not created by, affiliated with, or supported by PagerDuty, Inc.

1. On the devops-toolchain-lab toolchain's Tool Integrations page, click **Add a Tool**
2. Select **PagerDuty**
3. On the PagerDuty Configuration page:
 - Enter `zfuzadTuRc-z2rzbyq9K` as the API access key
 - Enter "devopslab" as the PagerDuty service name
 - Enter an email address you can access. Leave the phone number blank. PagerDuty has a place for you to enter your phone number if you want to receive text messages or receive phone calls.
4. Click **Create Integration**

API access key:

7x-RJtTJr9H-wCn-aJcK

PagerDuty service name:

devopslab

Primary contact email:

yourid@domainname.com

5. You can access the eMail account to accept the PagerDuty invitation.

[PagerDuty] Education Has Invited You to PagerDuty Inbox x

PagerDuty <support@pagerduty.com>
to me

Hi Primary contact

Education has asked you to join your organization's PagerDuty account.

PagerDuty is an incident management platform that provides reliable incident alerting via email, push, SMS, and phone, as well as automatic escalations, on-call scheduling, and other functionality to help teams detect and fix infrastructure problems quickly.

Once you've joined, you'll be able to configure how you'd like PagerDuty to contact you when you are assigned incidents.

To accept this invitation, please visit:
https://devopslab01.pagerduty.com/sign_up?invitation_token=9f7e7b9c6a4a4c59b0217e71130ec115

By using PagerDuty, you agree that you may receive SMS messages from us. Please read our terms and conditions at <http://www.pagerduty.com/tac>.

6. You can enter your phone information into your PagerDuty account (if you have one). If you do this, you will get text messages and/or phone calls, depending on where you entered your phone number. Normal messaging rates apply.

Contact Information	Notification Rules	User Settings	Permissions
Name	JimP Test01		
Title	What's your title?		
Bio			
Time Zone	(UTC-05:00) Eastern Time (US & Canada) [account default]		
Current Time	12:32 PM (Your local time)		
Phone	+ Add Phone Number		
SMS	+ Add SMS Number		

Phone call

Text Message

The list of countries PagerDuty supports is at: [PagerDuty Country Support](#)

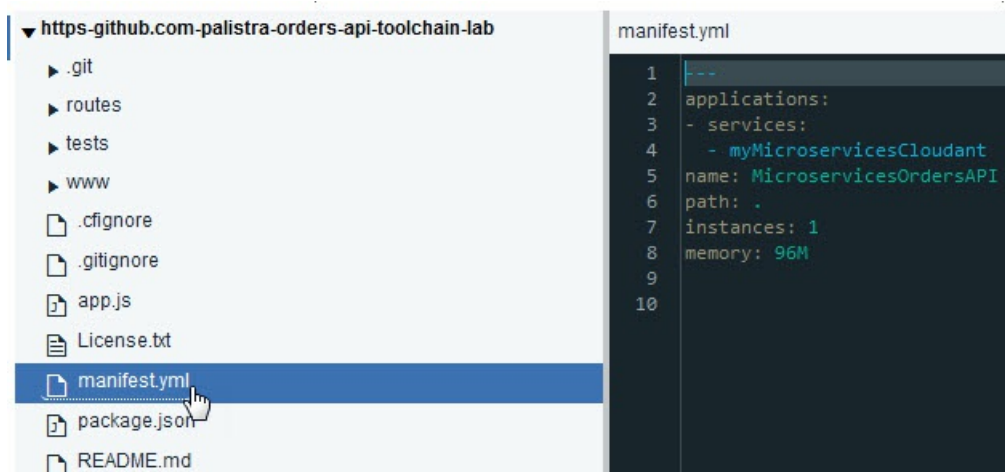
Task 2: Add Eclipse Orion Web IDE to Toolchain

We want to modify the application and one way is to use the Web IDE.

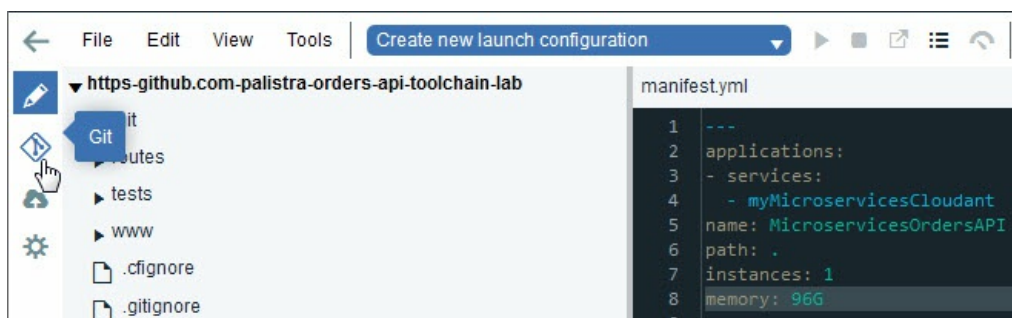
1. On the toolchain's Tool Integrations page, click the add button +
2. Select **Eclipse Orion Web IDE**.
3. No configuration is needed. so click **Create Integration**.

Task 3: Verify PagerDuty works by breaking application build

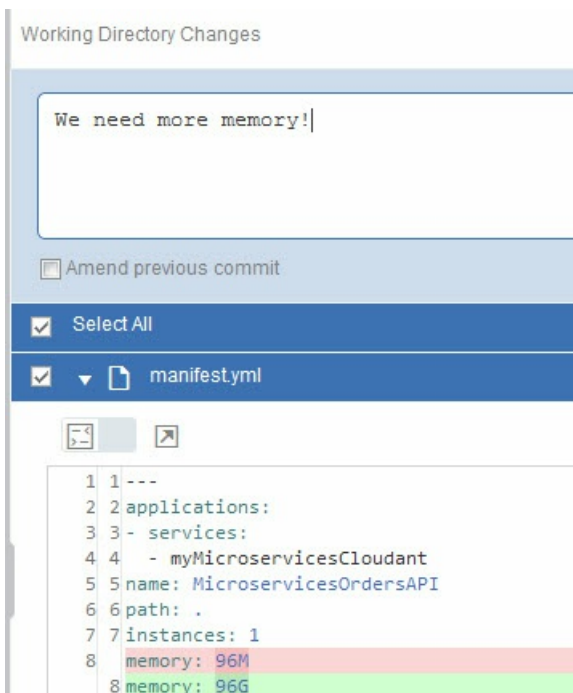
1. On the toolchain's Tool Integrations page, click the **Eclipse Orion Web IDE** tile. The GitHub repos are automatically loaded in your workspace. The Web IDE workspace is on the cloud.
2. In the file navigator, expand the orders-api-toolchain_name repo (if needed).
3. In the file directory, click manifest.yml to open the file.



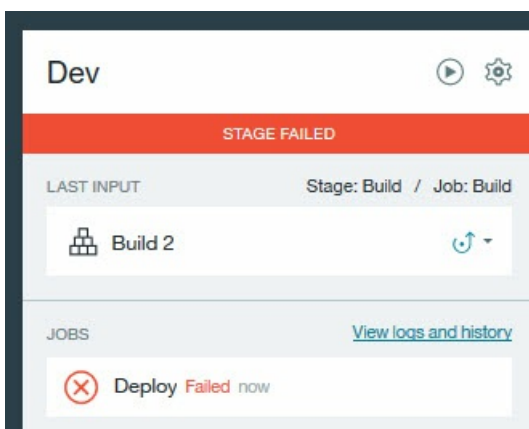
4. Update the value for memory to 96g. This setting intentionally increases your memory to exceed the quota for your org. Your changes are automatically saved.
5. Now to Push the changes. From the Eclipse Orion Web IDE menu, click the **Git** icon.



6. In the Working Directory Changes section, which is in the upper-right corner of the window, make sure that the changed file is selected. Enter a relevant comment.



7. Click **Commit** to put the changes in the local master branch.
8. Put these changes in the origin/master branch and click **Push**. Your changes are automatically built and deployed in the pipeline.
9. Return to devops-toolchain-lab toolchain's Tool Integrations page and click the pipeline tile for the orders-api microservice to watch the stages run in response to your commit (you may have to manually start the Build if it does not start automatically).
10. The Deploy fails.



11. The PagerDuty console (<https://devopslab01.pagerduty.com/incidents>) shows the incident:

<input type="checkbox"/>	Urgency ▾	# ▾	Created On ▾	Details	Service	Assigned To
<input checked="" type="checkbox"/>	High	8	at 10:49 AM	Job 'Deploy' in Stage 'Dev' #4 of Pipeline 'orders-api-toolchain-lab' from Toolchain 'devops-toolchain-lab' has FAILED - https://ibm.biz/BdsRnJ	devopslab	Bluemix Cloud Developer

12. The account you entered when you setup the PagerDuty integration will have an alert. The link in the email will allow you to view the incident on PagerDuty (assuming you

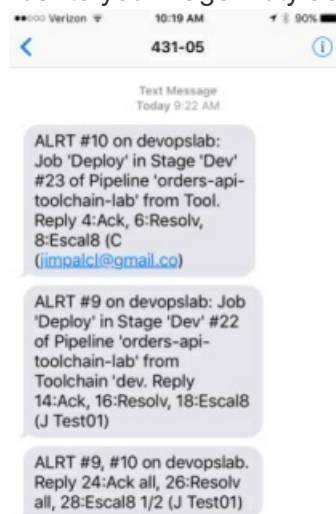
accepted the invitation from PagerDuty).

Hello Primary contact (BluemixCloudDeveloper@gmail.com),

You are assigned 1 triggered incident in PagerDuty:
Please visit the following URL to manage this incident.
<https://ibmdevopslab.pagerduty.com/incidents>

1) Incident #8
Opened on: Oct 24 at 10:49 AM EDT
Service: devopslab
Description: Job 'Deploy' in Stage 'Dev' #4 of Pipeline 'orders-api-toolc
Link: <https://ibmdevopslab.pagerduty.com/i/8>
Escalation Policy: Policy for devopslab
Details:

13. If you added a mobile phone number to your PagerDuty account, that phone will receive an alert and/or phone message.



Task 4: Fix application

Now to fix the application.

1. On the toolchain's Tool Integrations page, click the **Eclipse Orion Web IDE** tile.
2. In the file navigator, expand the orders-api-toolchain_name repo (if needed).
3. In the file directory, click manifest.yml to open the file.
4. Update the value for memory to 96m.
5. Now to Push the changes. From the Eclipse Orion Web IDE menu, click the **Git** icon.
6. In the Working Directory Changes section, which is in the upper-right corner of the window, make sure that the changed file is selected.
7. Click **Commit** to put the changes in the local master branch.
8. Put these changes in the origin/master branch and click **Push**. Your changes are automatically built and deployed in the pipeline.
9. Return to your toolchain's Tool Integrations page and click the pipeline tile for the orders-api microservice to watch the stages run in response to your commit (you may have to manually start the Build if it does not start automatically).
10. The deploy is successful. And all the downstream stages run afterwards.

