

Dynatrace AWS Hands-On Workshop

Unbreakable Continuous Delivery





Workshop Requirements Overview

1. Familiarity with AWS services and portal
2. Email to use for signing up for free AWS Account. This will allow for creation of various AWS cloud resources such as EC2, VPC, EKS. We ask to not use your enterprise account due to potential security permission issues.
3. Familiarity with software build pipelines concepts. We will be using Jenkins in the lab.
<https://jenkins.io/>
4. Email to use for signing up GitHub account as to create a GitHub org and manage repositories. You can use existing account if you have one.
5. Email to use for signing up for free Dynatrace SaaS Trial. We ask to not use your enterprise account since the Demo assumes Dynatrace SaaS.

Pre-req setup



Workshop Cheat Sheet

Make a text file to save the following information (in yellow & blank) into a text file like notepad. You will need this later for during the demo app setup where you will be prompted to paste in the values.

Dynatrace Tenant
Dynatrace Api Token
Dynatrace PaaS Token

github User Name
github Personal Access Token
github User Email
github Org

Later in
setup
these used
in a file

```
[ec2-user@ip-172-31-55-10 scripts]$ more ./creds.json
{
  "jenkinsUser": "admin",
  "jenkinsPassword": "AiTx4u8VyUV8tCKk",
  "dynatraceTenant": "",
  "dynatraceApiToken": "",
  "dynatracePaaSToken": "",
  "githubUserName": "",
  "githubPersonalAccessToken": "",
  "githubUserEmail": "",
  "githubOrg": ""}
```



Getting Started: Sign up for an AWS Account

<https://aws.amazon.com/free/>

The screenshot shows the AWS Free Tier landing page. At the top, there's a dark header bar with the AWS logo and a navigation menu with links: Products, Solutions, Pricing, Documentation, Learn, Partner Network, and AWS Marketplace. Below the header, a secondary navigation bar has links for AWS Free Tier (which is highlighted in bold), Overview, FAQs, and Terms and Conditions. The main content area features a large, bold title "AWS Free Tier". Below the title, a subtext reads: "Gain free, hands-on experience with the AWS platform, products, and services". At the bottom of the main content area is a prominent yellow button with the text "Create a Free Account".

Getting Started: AWS Access Keys

You will need to setup an AWS access key so that later you can setup and use the CLI

1. Navigate to 'My security credentials'
2. Pick 'create access key' button

Access keys for CLI, SDK, & API access

Use access keys to make programmatic calls to AWS from **secret key, you cannot retrieve it. Instead, create a new**

Create access key

Access key ID	Status	Create
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IAM User: rob.jahn@dynatrace.com

Account: 3707-7316-3666

Status Checks

- 2/2 checks ...

My Account

My Organization

My Billing Dashboard

My Security Credentials

Switch Role

Sign Out

Create access key

Your new access key is now available.

This is the only time that the secret access key can be viewed. You cannot recover it later. However, you can create new access keys at any time.

Download .csv file

Access key ID	Secret access key	Show secret access key
AKIAJUGWEQYEZX6Q5R4		Show secret access key

3. Download file. Click "show secret key" and save both the AWS access Key and AWS access secret key to your cheat sheet





Getting Started: *Sign up for a Dynatrace Free trial*

www.dynatrace.com/trial/

Get ready to be amazed
in five minutes or less

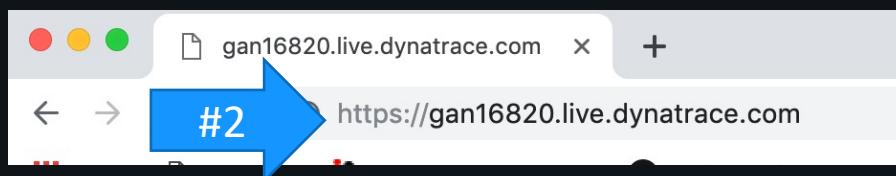
with Dynatrace software intelligence for the enterprise cloud





Getting Started: Generate Dynatrace PaaS token (Needed for OneAgent Installer)

1. Login to the Dynatrace account you have setup for this workshop
2. Copy this portion of your URL to your cheat sheet as the "Dynatrace Tenant URL". DO NOT include "/" at the end.
<https://<tenant>.live.dynatrace.com>



3. In Dynatrace goto "Deploy Dynatrace" then click the "PaaS integration" button
4. On PaaS Integration page, "Generate new token"
5. Copy the Token to your cheat sheet as the "Dynatrace PaaS Token"

PaaS integration

Azure Web Apps
How do I integrate Azure Web Apps?

Cloud Foundry
How do I integrate Cloud Foundry apps?

OpenShift
How do I integrate OpenShift apps?

Kubernetes
How do I integrate Kubernetes apps?

You'll need your environment ID and a PaaS token to complete setup at your PaaS platform portal.

Environment ID
eef39839

PaaS token

AzureServiceFabric
InstallerDownload
UnbreakablePipeline



Getting Started: Generate Dynatrace API token (Needed to make API calls)

1. In Dynatrace, goto Settings->Integration->Dynatrace API
2. From here choose 'Generate Token'
3. Name it 'Lab API Token' and leave access scope the defaults
4. Confirm that 'write configuration' is enabled
5. Hit 'Generate' button

Screenshot of the Dynatrace API token generation interface. The sidebar shows various monitoring categories like Web & mobile monitoring, Cloud and virtualization, and Integration. The main area is titled 'My Dynatrace API tokens' and contains a section for generating a new token. A blue arrow labeled '#1' points to the 'Dynatrace API' link in the sidebar. A blue arrow labeled '#2' points to the 'Generate token' button.

Screenshot of the Dynatrace API token generation dialog. It has tabs for 'My Dynatrace API tokens' and 'Other Dynatrace API tokens'. The 'My Dynatrace API tokens' tab is active. It contains a section for generating a new token with fields for 'API Token' and 'Owner'. Below this is a list of access scopes with 'Write configuration' selected. At the bottom are 'Generate' and 'Cancel' buttons. Blue arrows labeled '#3' through '#6' point to the 'API Token' input field, the 'Write configuration' switch, the 'Generate' button, and the 'Cancel' button respectively.

6. Copy Token to your cheat sheet as the "Dynatrace API Token"



Getting Started: *Sign up for a GitHub Account*

<http://www.github.com>

The screenshot shows the GitHub sign-up interface. At the top, there's a navigation bar with links for "Why GitHub?", "Enterprise", "Explore", "Marketplace", and "Pricing". To the right of the navigation is a search bar and two buttons: "Sign in" and "Sign up". The main content area features a dark background with white text. On the left, the text "Built for developers" is displayed prominently. Below it, a paragraph explains GitHub's purpose: "GitHub is a development platform inspired by the way you work. From **open source** to **business**, you can host and review code, manage projects, and build software alongside 31 million developers." On the right side of the screen, there's a sign-up form with fields for "Username" (containing "Pick a username"), "Email" (containing "you@example.com"), and "Password" (containing "Create a password"). A note below the password field states: "Make sure it's more than 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more](#)". At the bottom of the form is a large green button labeled "Sign up for GitHub". Below this button, a small note reads: "By clicking 'Sign up for GitHub', you agree to our [terms of service](#) and [privacy statement](#). We'll occasionally send you account related emails."



Getting Started: Make GitHub Organization

Make a new GitHub Organization where we will later have a copy of the demo app repositories

1. Click on “+” icon and choose “New Organization”
2. Org Name = <your last name>-dt-kube-demo
3. Email = your email
4. Accept default & skip survey when prompted. If you get prompted for credit card, then go back. Should be free plan you choose
5. **Copy new org name to your cheat sheet**

Create an organization account

Organization name *

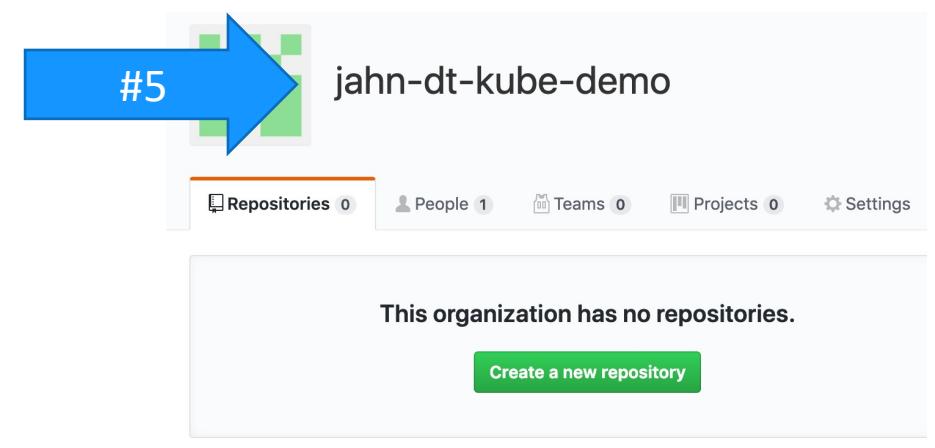
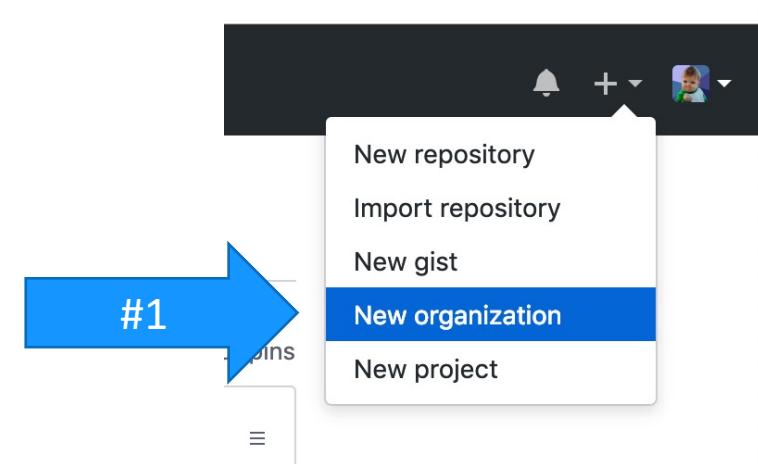
#2 jahn-dt-kube-demo ✓

This will be your organization name on <https://github.com/jahn-dt-kube-demo>.

Billing email *

#3 robjahn@gmail.com

We'll send receipts to this inbox.





Getting Started: Generate GitHub Personal Access Token

1. In GitHub, navigate to settings → developer settings → personal access tokens
2. Click 'generate new token'
3. Provide a name and choose all permissions

Make sure to copy your new personal access token now.
You won't be able to see it again !!

The screenshot shows the GitHub 'Developer settings' page under 'Personal access tokens'. A blue arrow labeled '#1' points to the 'Personal access tokens' tab. Another blue arrow labeled '#2' points to the 'Token description' field containing 'demo-app'. A third blue arrow labeled '#3' points to the 'Select scopes' section, which lists various GitHub permissions. All checkboxes in this section are checked.

Scope	Description
<input checked="" type="checkbox"/> repo	Full control of private repositories
<input checked="" type="checkbox"/> repo:status	Access commit status
<input checked="" type="checkbox"/> repo_deployment	Access deployment status
<input checked="" type="checkbox"/> public_repo	Access public repositories
<input checked="" type="checkbox"/> repo:invite	Access repository invitations
<input checked="" type="checkbox"/> admin:org	Full control of orgs and teams
<input checked="" type="checkbox"/> write:org	Read and write org and team membership
<input checked="" type="checkbox"/> read:org	Read org and team membership
<input checked="" type="checkbox"/> admin:public_key	Full control of user public keys
<input checked="" type="checkbox"/> write:public_key	Write user public keys
<input checked="" type="checkbox"/> read:public_key	Read user public keys