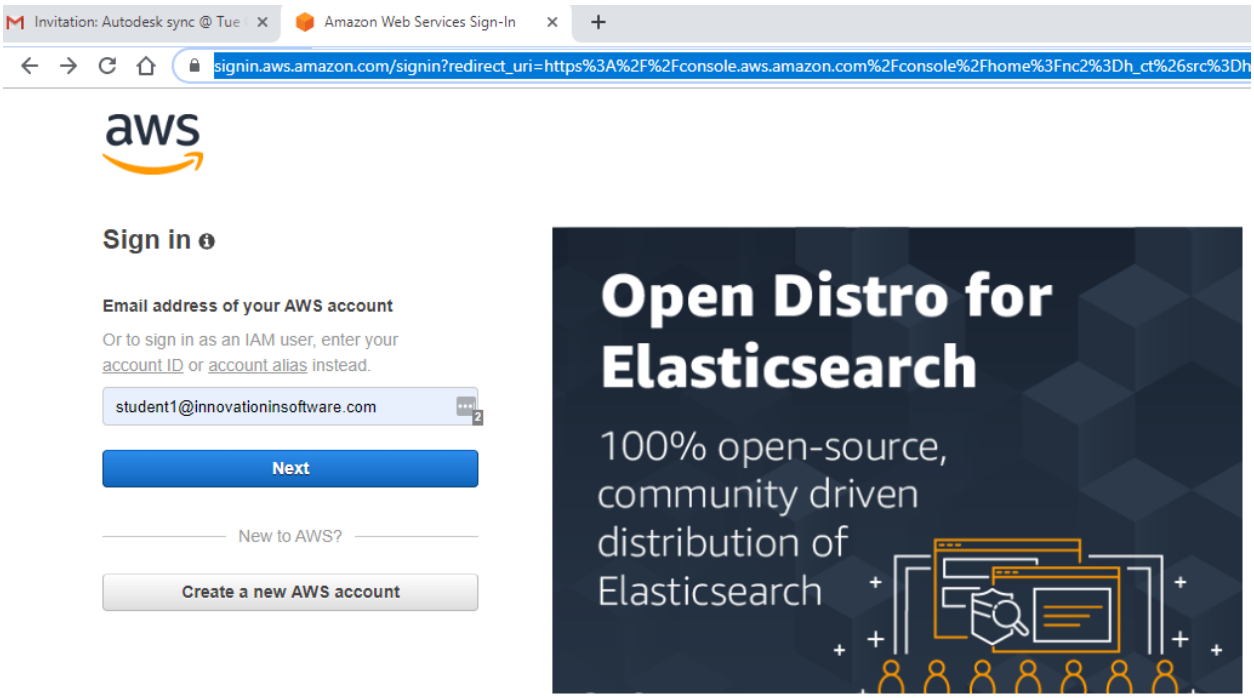
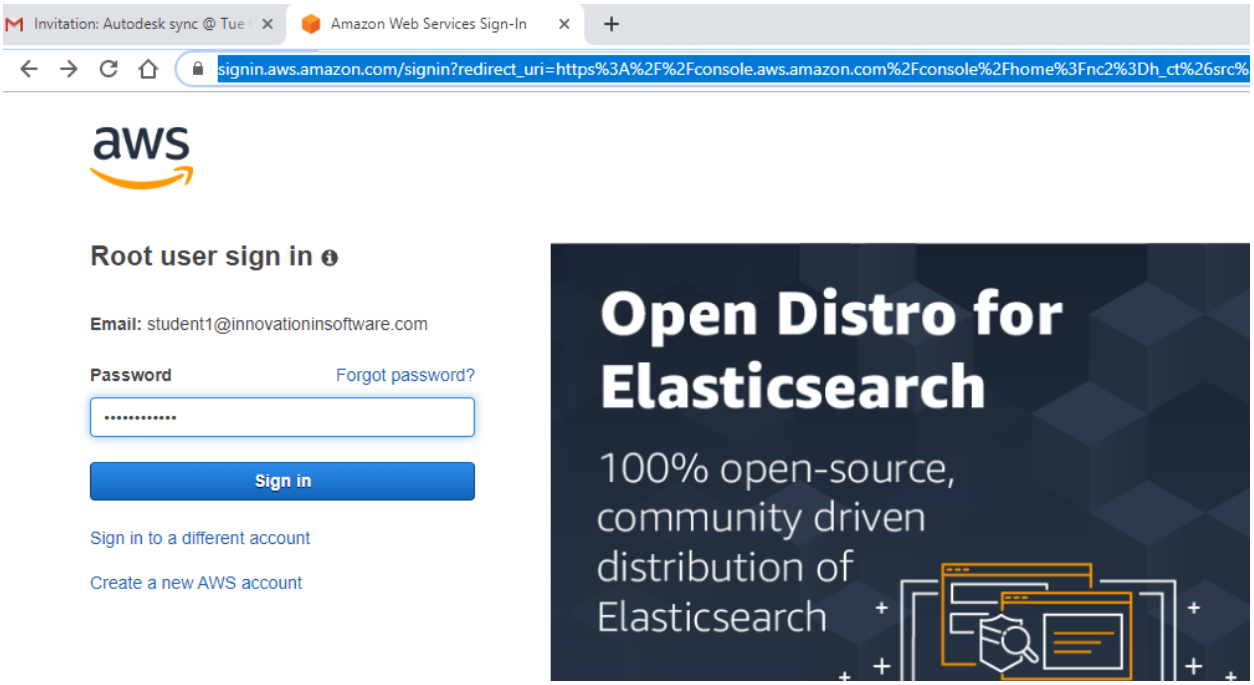
# Lab 01: Configure KiND Environment

## Step 1: Sign in with root user

1. Sign in to the AWS Management Console at with the student#@innovationinsoftware.com credentials provided by the session instructor.

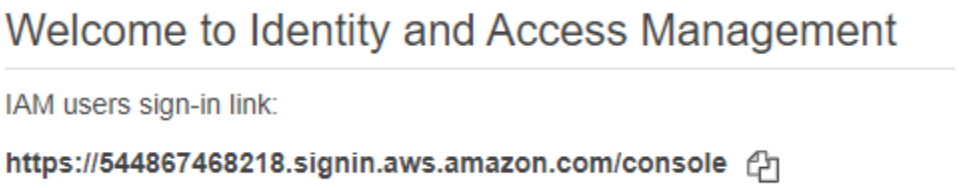
https://signin.aws.amazon.com/signin?redirect_uri=https%3A%2F%2Fconsole.aws.amazon.com%2Fconsole%2Fhome%3Fnc2%3Dh_ct%26src%3Dheader-signin%26state%3DhashArgs%2523%26isauthcode%3Dtrue&client_id=arn%3Aaws%3Aiam%3A%3A015428540659%3Auser%2Fhomepage&forceMobileApp=0






## Step 2: Capture Organization Console URL

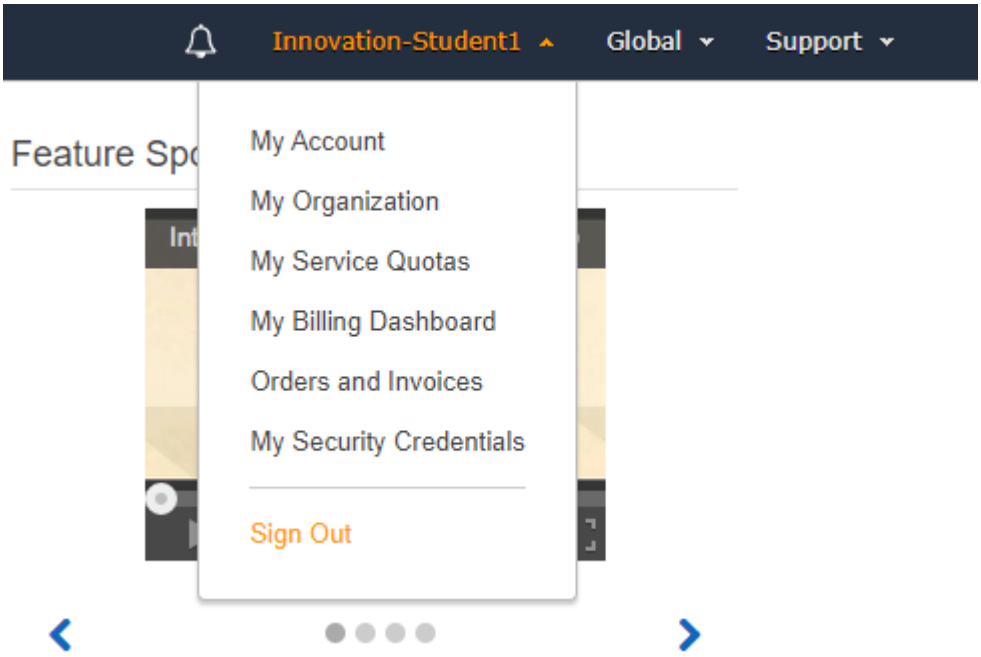
1. From the IAM left side menu, choose **Dashboard**.
2. Click the **Copy to clipboard** box next to the IAM users sign-in link:



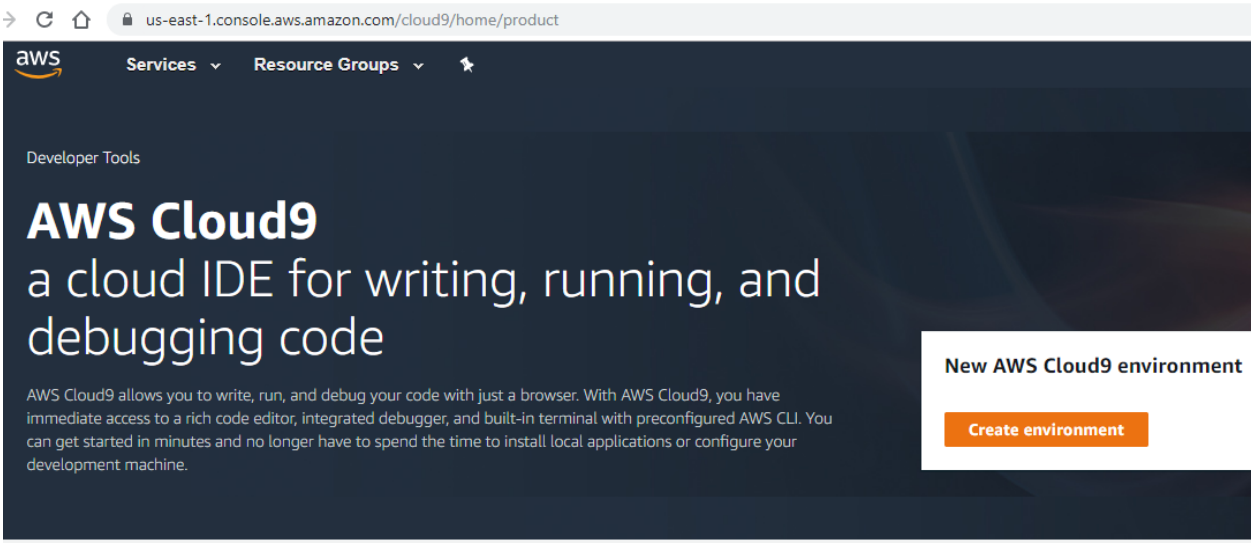

## Step 3: Create Cloud9 Environment

Now that we've completed the steps for our user setup, we are ready to sign in to the AWS Cloud9 console and start using it. We're going to use a Cloud9 Integrated Development Environment. AWS Cloud9 is a cloud-based integrated development environment (**IDE**) that lets you write, run, and debug your code with just a browser. Cloud9 is written in JavaScript with NodeJS.

1. Since we are already signed in to the AWS Management Console as our student#@innovationinsoftware.com account root user, sign out of the console.



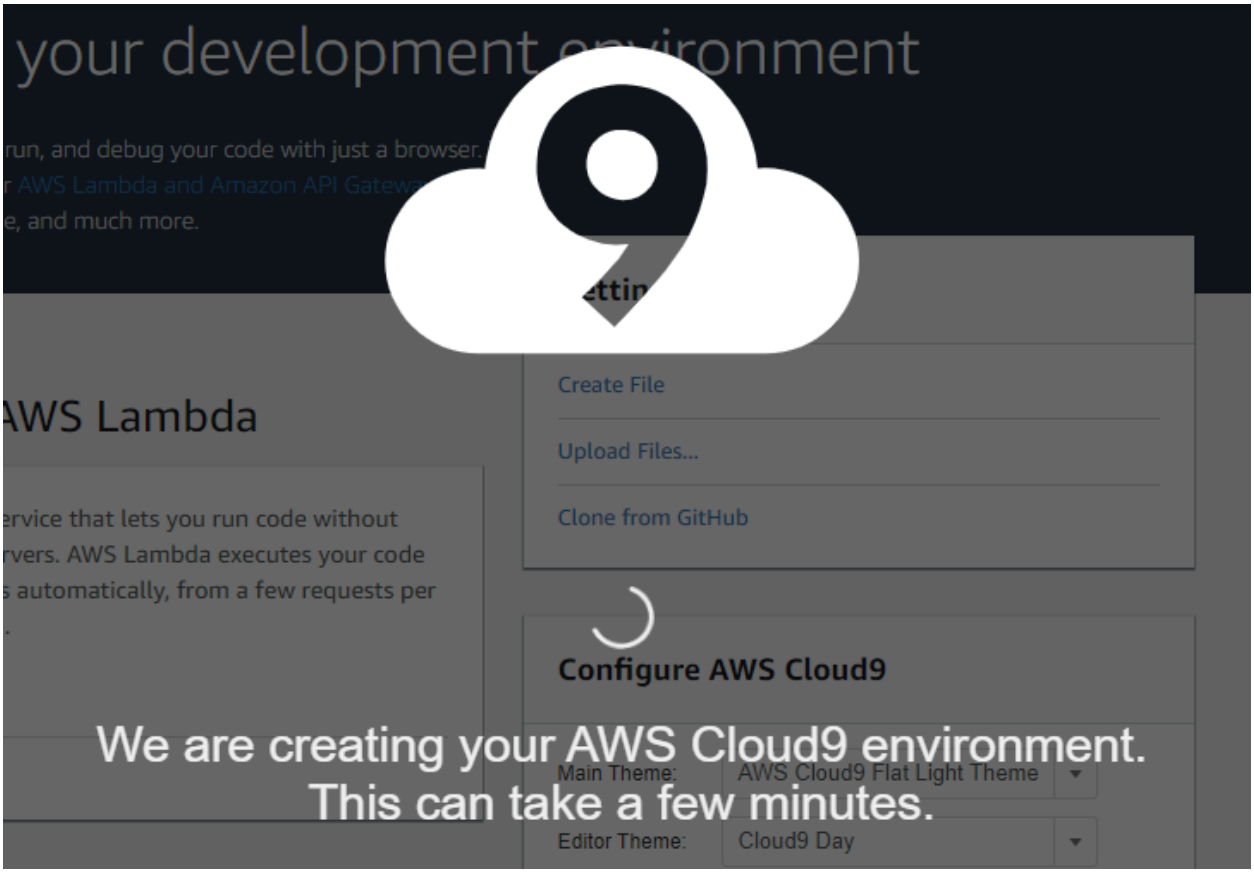

2. Login to AWS console for our organization by pasting the sign-in link that we copied into the browser. For example, **https://12344867468218.signin.aws.amazon.com/console**
3. In the **Find Services filter** box enter **Cloud9** and select that service




4. Select **Create environment**.
5. Enter our environment **Name** as ***student#*-cloud9-kind**

   Note: substitute your student number for the #, e.g. student13-cloud9-kind

6. Enter our environment optional **Description** as **Environment for working with our AWS Services** or similar
7. Select **Next Step**
8. In the **Configure settings – Environment Settings** keep the defaults for **Environment type** (Create a new instance for environment), **Instance type** (t2.micro) and **Platform** (Amazon Linux)
9. Change **Cost-saving setting** to **After one hour**
10. Select **Next step**
11. Select **Create environment**




12. The process for creating the environment will take a couple of minutes, if it takes more than 5 minutes likely there was an issue and you'll have to delete and recreate your environment.

The AWS Cloud9 console is displayed, and you can begin using AWS Cloud9 environment.

## Step 4: Validate Cloud9 Config Information

1. In the bash prompt enter the following curl to view your Cloud9 instance ID

   **$ curl http://169.254.169.254/latest/meta-data/instance-id**

   ```
   $ curl http://169.254.169.254/latest/meta-data/instance-id
   i-023d71de1e4597b47
   ```

2. This instance information can be useful if there are issues and you need to open an AWS support ticket
3. Verify our working directory with

   **$ pwd**

4. This displays the **/home/ec2-user/environment** folder that is our environment working directory on top of the **/home/ec2-user** standard Linux user home folder, on Amazon and Ubuntu Linux variants in AWS
5. Execute the following commands to install the KiND tool.

```
$  curl -Lo ./kind https://kind.sigs.k8s.io/dl/v0.17.0/kind-linux-amd64

$  chmod +x ./kind

$  sudo mv ./kind /usr/local/bin/kind
```

6. Test your KiND installation

```
ec2-user:~/environment $ kind --help

kind creates and manages local Kubernetes clusters using Docker
container 'nodes'

Usage:

  kind [command]
```

Congratulations, you've successfully completed the installation of KiND in your AWS Cloud9 IDE