



Learn to Code For Women
A Beginners Course
First things First - Class #1

Agenda

- Welcome – Who are you and What do you expect ?
- Computers are Dumb – How to talk to Computers.
- Exercise #1 – Post it Notes Design
- Setting up your cloud learning environment
- Running your first program.
- Next Week Seven Concepts

Welcome – Who are you and What do you expect ?

Who
Are
you

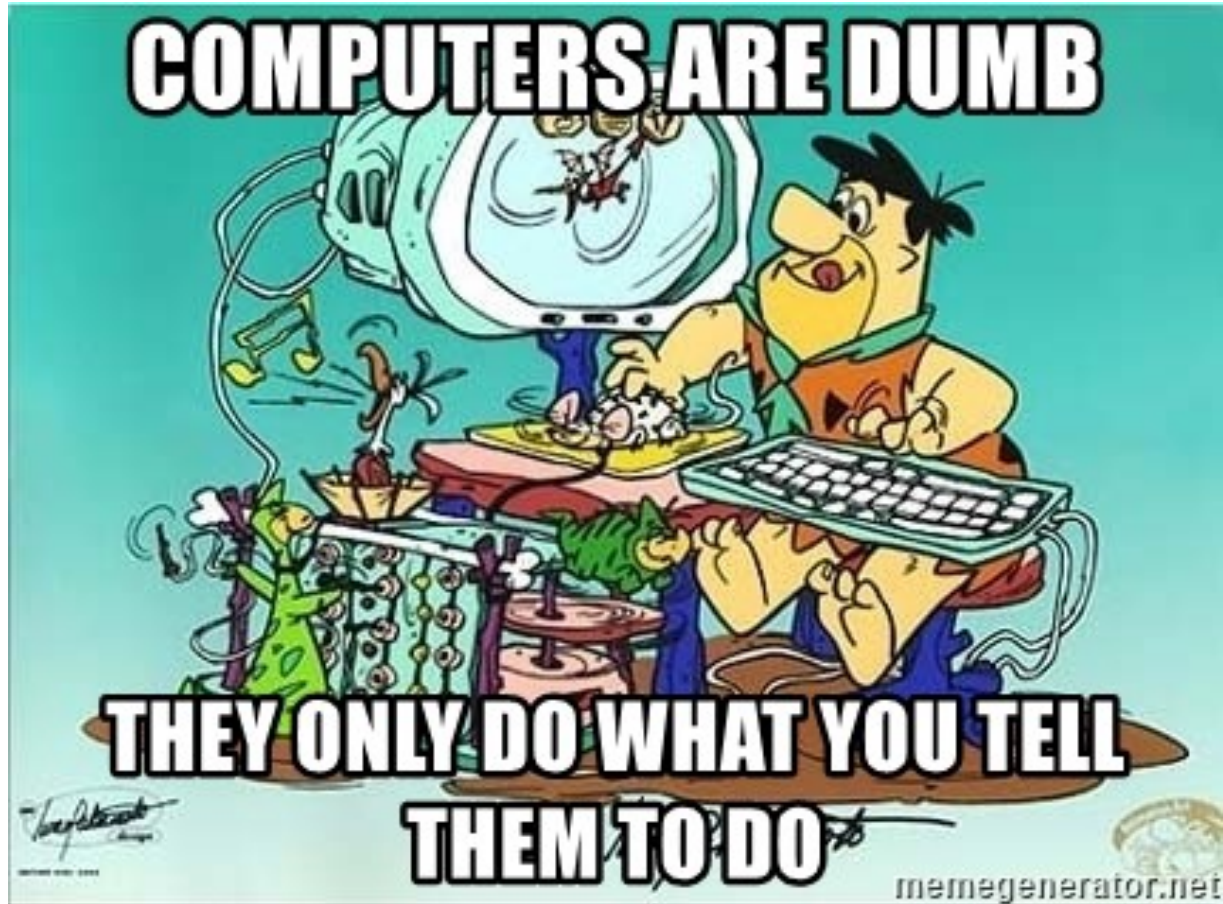
Tell us about your self.

What is your favorite food ?

What do you expect to learn ?

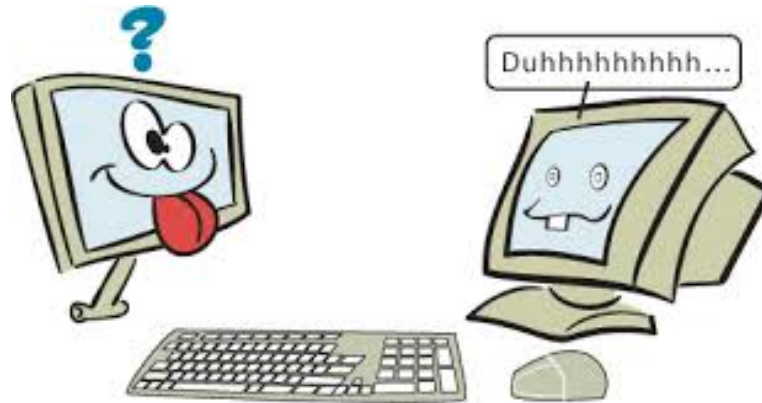
NOTE: You should know how to type on a computer and use a web browser for this class.

Computers are Dumb



How to talk to Computers

Computers in the beginning could only speak on and off, zeros and ones. Yes, Binary, but that is not how you have to talk to computers today.



Computers have many different languages that they can understand today.

For this class we will learn three different languages, python, html and a little JavaScript.

First we will learn python and understand the basics.

Thinking like a Coder/Programmer

Exercise #1 – Post it Notes Design

Your first exercise will be to write out detailed step by step instructions for cooking chili hot dogs on regular buns.

Remember computers are dumb.

Learn to think how to break the process into step by step form, with everything and I mean everything in simple steps.

You need to write each step on one post-it note.

You should have between 20 and 30 steps/post-it notes.

Example starting point: 1.) choose recipe, 2. choose store, 3. Check if I can I walk or need to drive to store ? 4.) If drive then do I have a car ? , finish the steps on post-it notes.



Setting up your cloud learning environment – Pre-Reqs

The tools you will need to use to learn to code will all be on the internet or cloud as they say now. All you need is a web browser, like google chrome or firefox.

In your web browser

NOTE: You can create new ones just for class if you want.

Create a Google Gmail at
<http://mail.google.com>.

Create GitHub Account
<https://github.com>

Setting up your cloud learning environment – Eclipse-Che

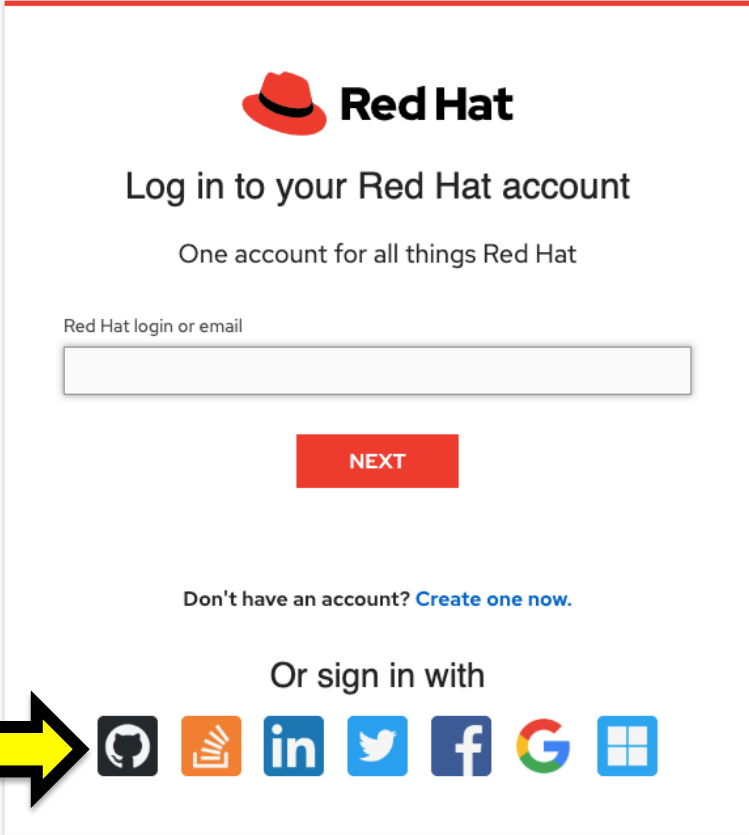
Next Create Red Hat Account for Eclipse-Che Python Environment

In web browser goto:

<https://che.openshift.io>

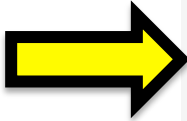

NOTE select click on the cat picture the first icon. See yellow arrow below. This will use up your github account.

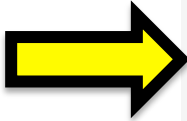
You do not have to type in box your email.



The image shows a screenshot of the Red Hat login page. At the top is the Red Hat logo. Below it, the text reads "Log in to your Red Hat account" and "One account for all things Red Hat". There is a text input field labeled "Red Hat login or email". Below the input field is a red button labeled "NEXT". At the bottom, there is a link "Don't have an account? Create one now." and a section titled "Or sign in with" followed by several social media icons: GitHub, Eclipse, LinkedIn, Twitter, Facebook, Google, and Microsoft. A large yellow arrow points to the GitHub icon.

Setting up your cloud learning environment – Login using the Github you created





Sign in to **GitHub**
to continue to **Red Hat SSO**

Username or email address

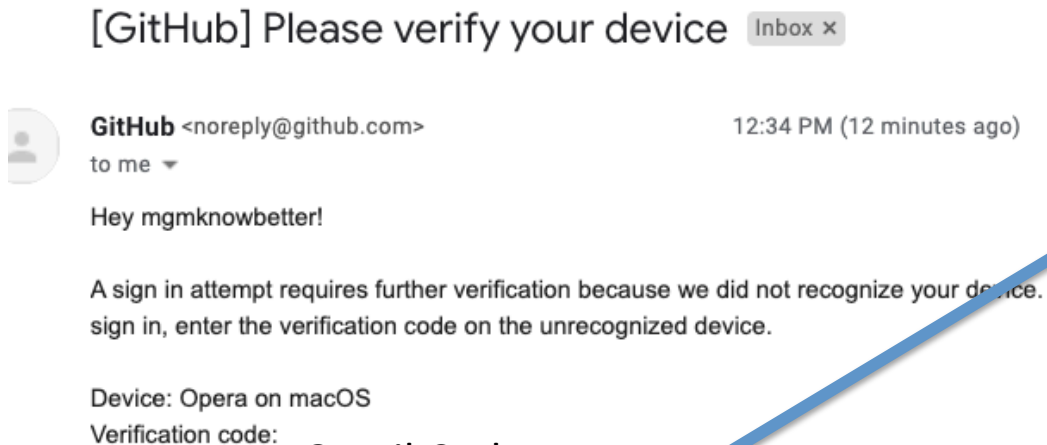
Password [Forgot password?](#)

Sign in


New to GitHub? [Create an account.](#)

Setting up your cloud learning environment – Goto your Gmail Account and get the code.

Goto your Gmail Email and look for email with this subject and copy the verification code to use on verification form.



Gmail Code
Type in box on
from last step.



Device verification

Device verification code

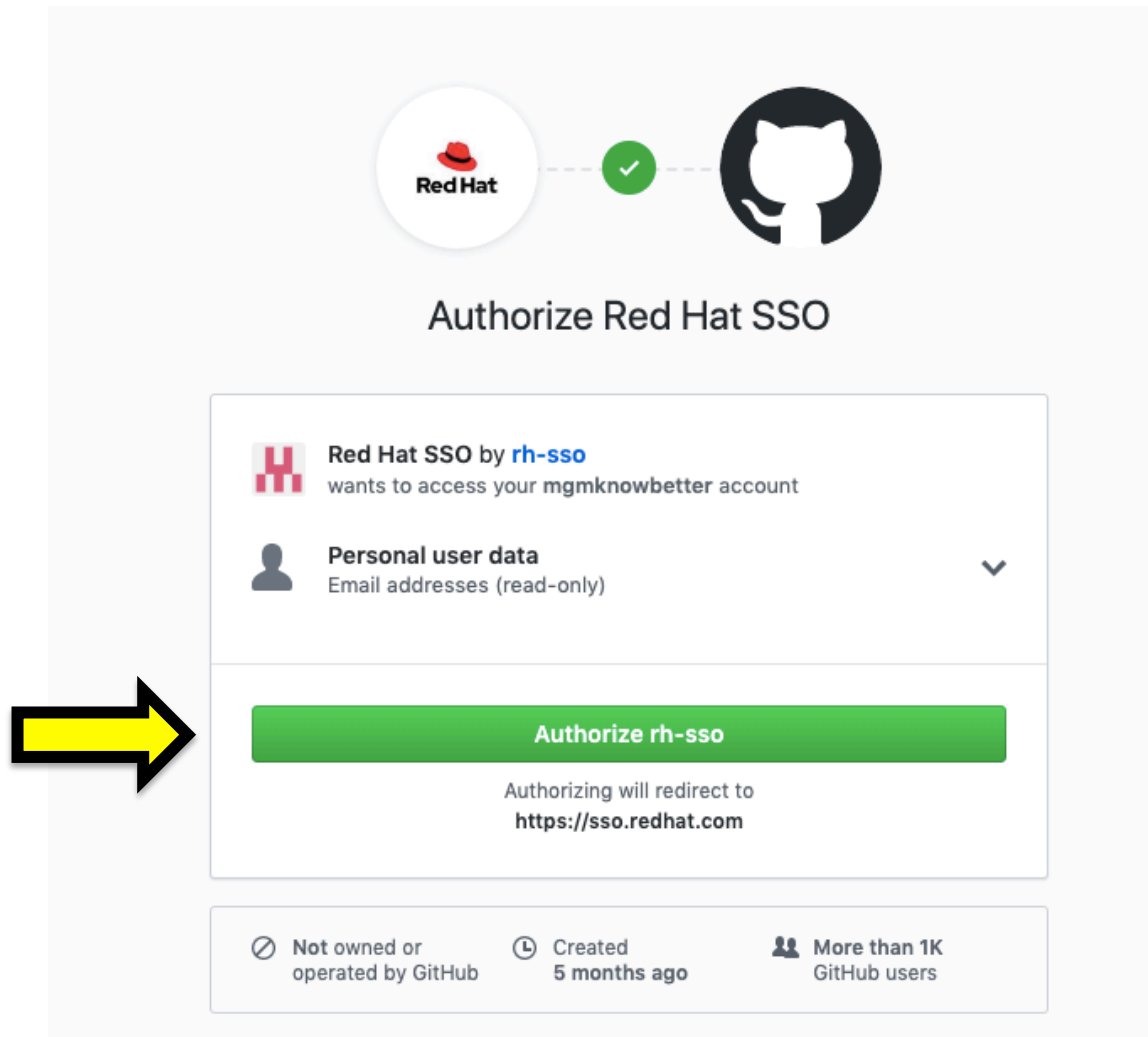
[Verify](#)

✉ We just sent your authentication code via email to m*****@gmail.com. The code will expire at 1:34PM EST.

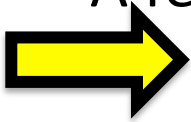
[Re-send the code.](#)

If you'd like to automatically verify devices in the future, consider enabling [two-factor authentication on your account](#).

Setting up your cloud learning environment – Login using the Github you created



Setting up your cloud learning environment – A few more authorization steps follow screens enter info.



your Red Hat account, please review and update your account information below. We retrieved the pre-filled information from your provider.

more know

Job role *

Senior Architect

Country *

United States


☒ I have read and agree to all the terms and conditions below (check all boxes).

- ☒ * I have read and agree to the [Enterprise Agreement](#).
- ☒ * I have read and agree to the [Red Hat OpenShift Online Services Agreement](#).
- ☒ * I have read and agree to the [Developer Program Terms & Conditions](#).

☒ I would like to receive the Red Hat Developer Program newsletter.

☒ I would like to receive the Red Hat OpenShift newsletter.

CREATE MY ACCOUNT

**Red Hat**

Account Information

* Required fields

Choose your username (Red Hat Login ID) *

You can use this username (also known as your Red Hat Login ID) to log in to other Red Hat sites. **It cannot be changed once created** and it must be at least five characters.

Red Hat

Eclipse Che

Eclipse Che powered by OpenShift.

We're glad you are here, mgmknowbetter.

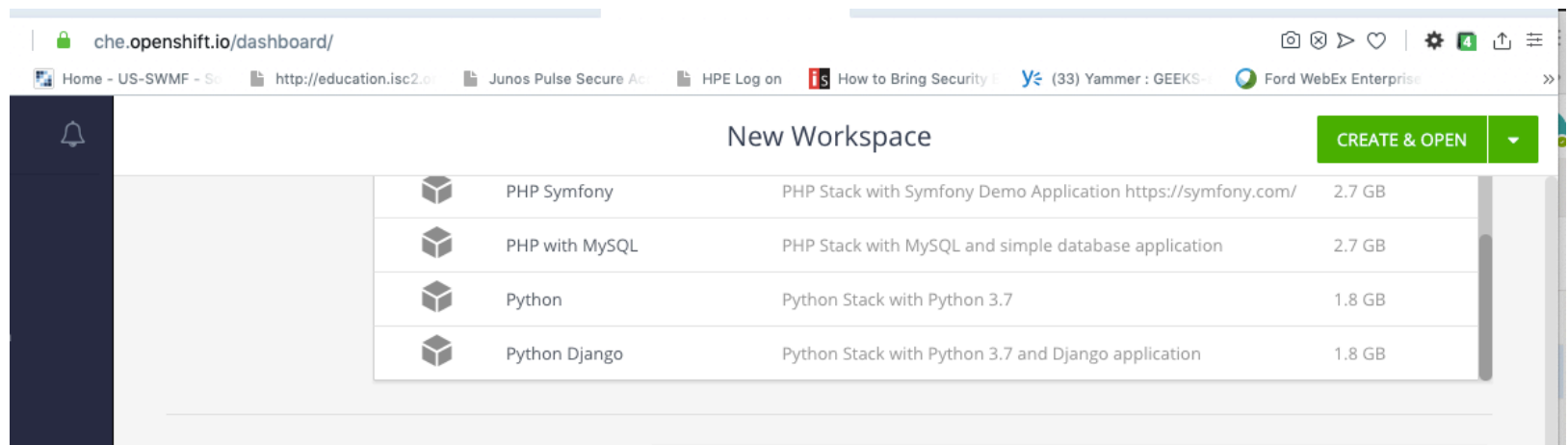
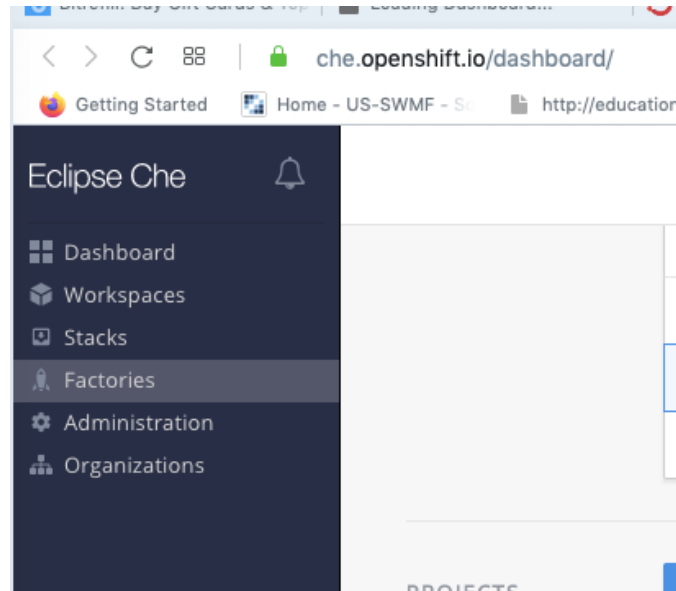
Ready to go ?

Please activate your account by clicking on the link below.
We'll confirm your account login again and grant you the resources to use Eclipse Che.

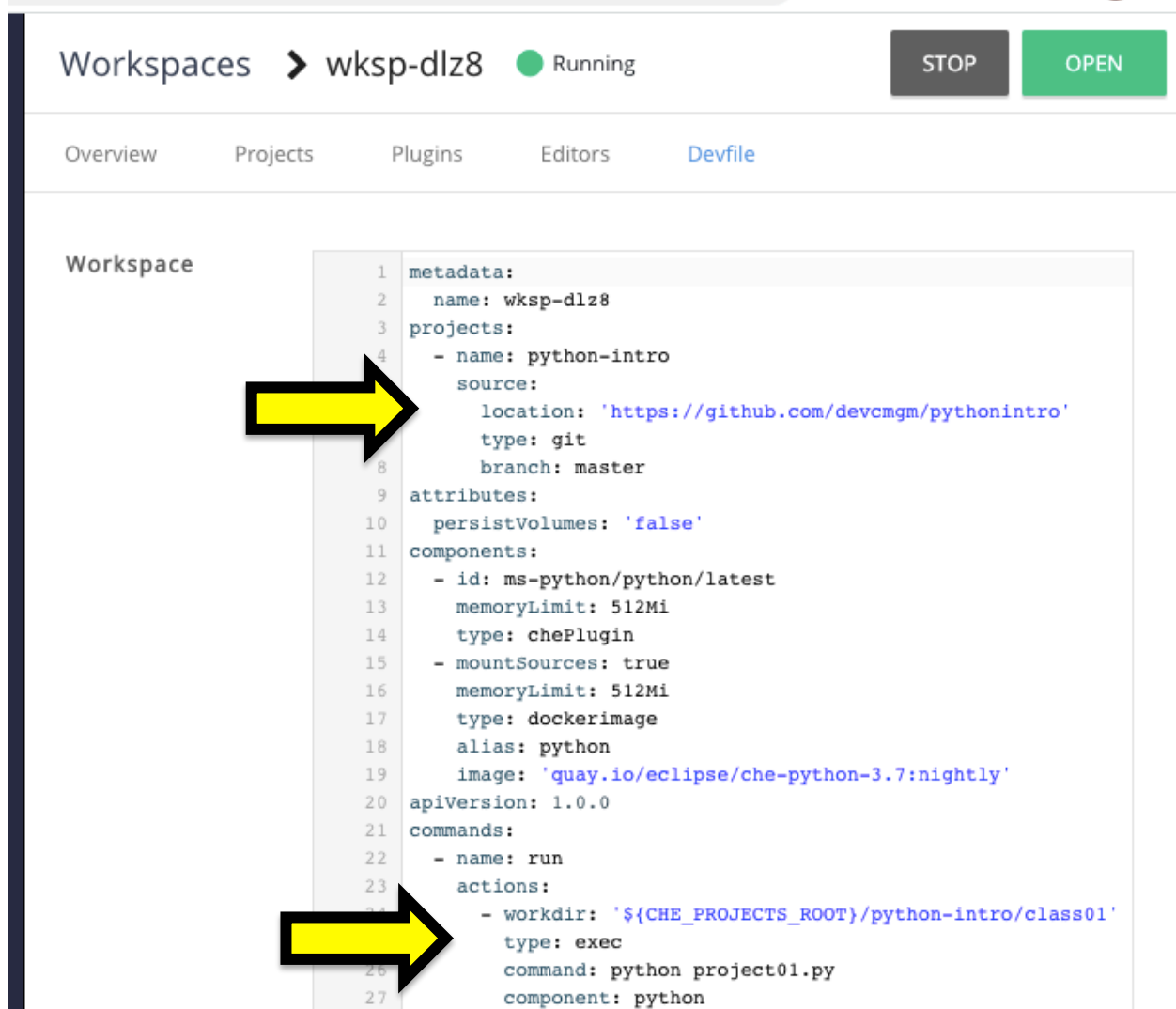
ACTIVATE ACCOUNT

[Use a different account](#)

Setting up your cloud learning environment – Final Step Create Python Workspace.



Setting up your cloud learning environment – Final Step Create Python Workspace.

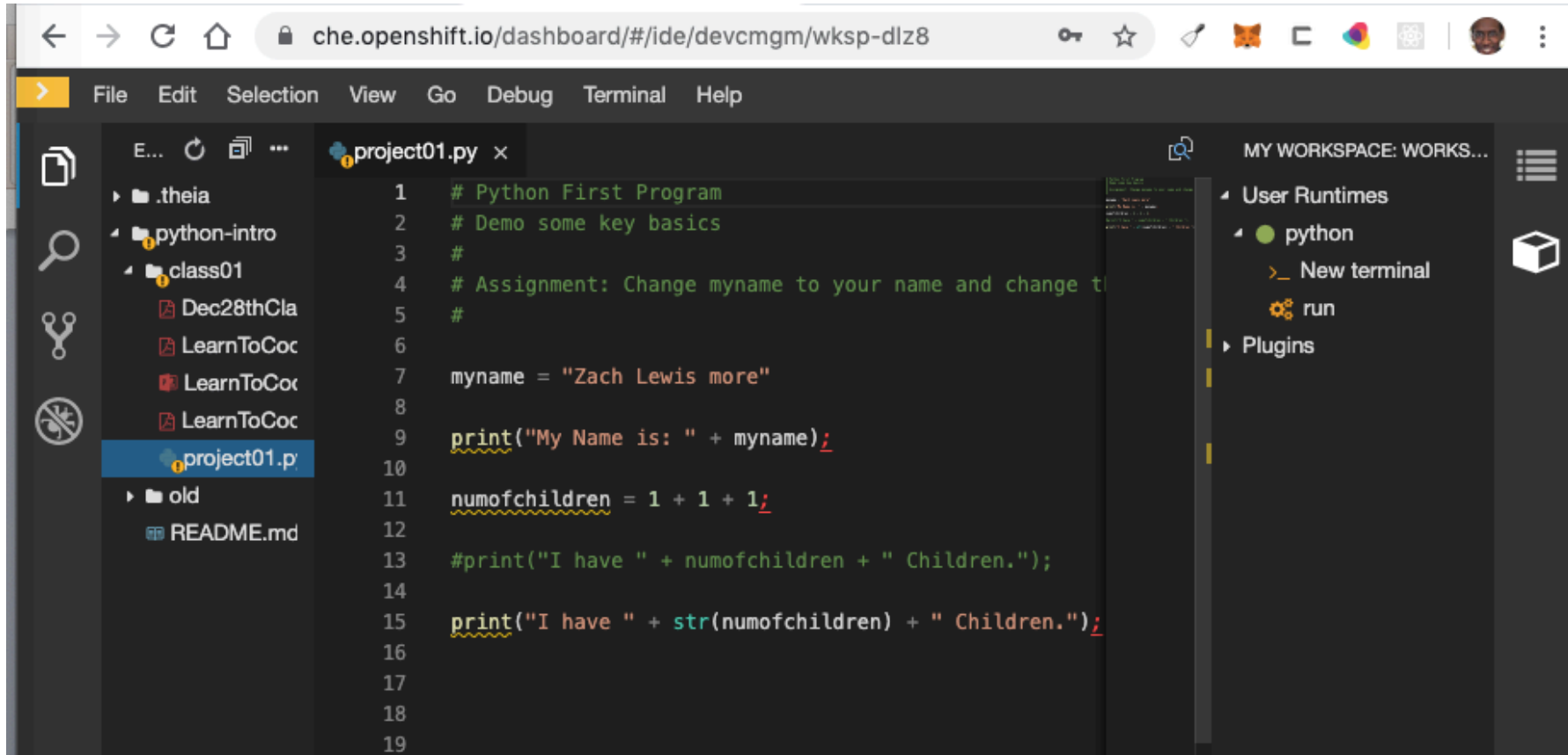


The screenshot displays the Che workspace configuration interface. At the top, the workspace is named 'wksp-dlz8' and is in a 'Running' state, indicated by a green dot. There are 'STOP' and 'OPEN' buttons. Below the workspace name, there are tabs for 'Overview', 'Projects', 'Plugins', 'Editors', and 'Devfile'. The 'Devfile' tab is selected, showing the workspace configuration in a code editor. The configuration is a YAML file with the following structure:

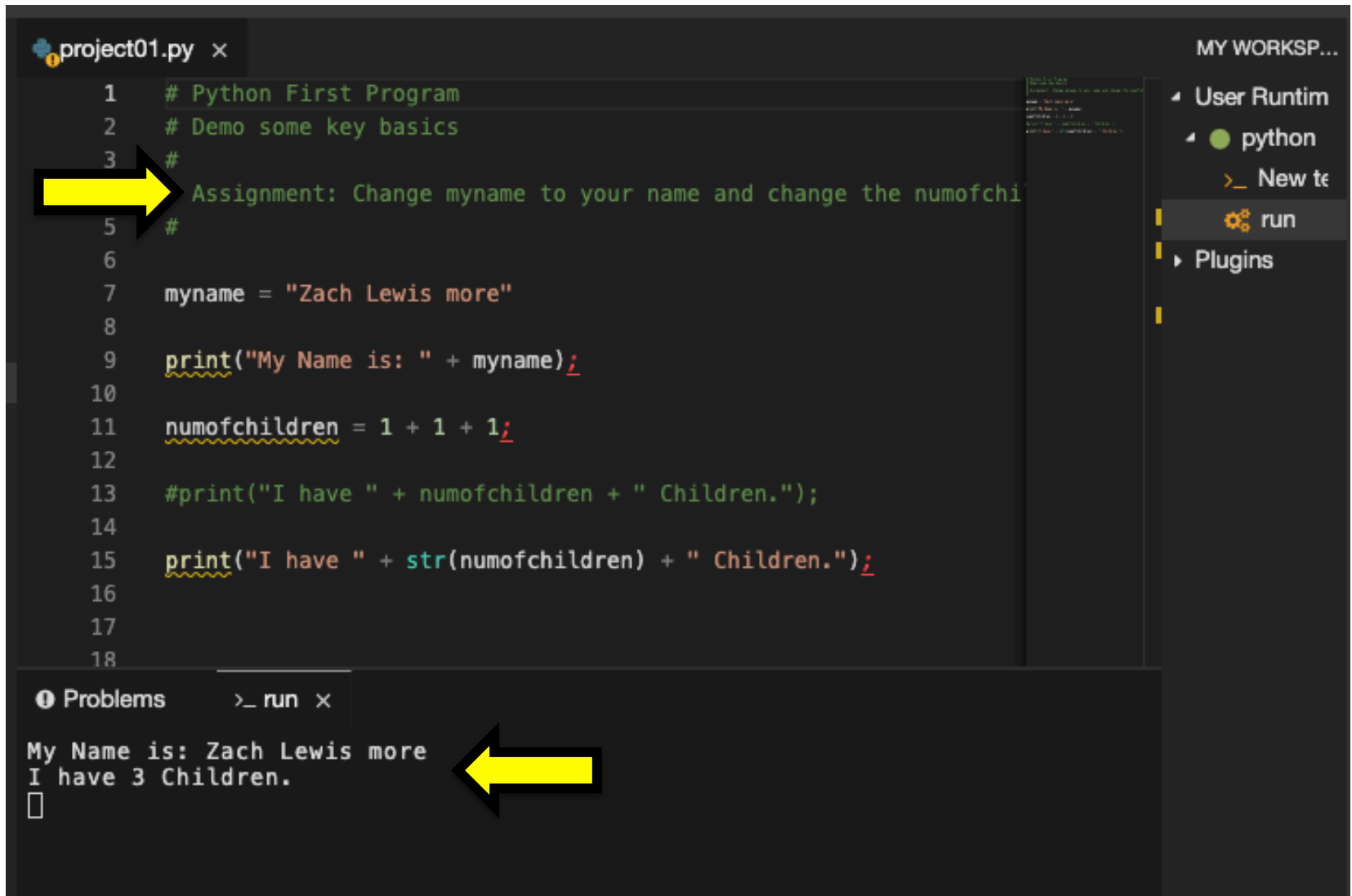
```
1 metadata:
2   name: wksp-dlz8
3 projects:
4   - name: python-intro
5     source:
6       location: 'https://github.com/devcmgm/pythonintro'
7       type: git
8       branch: master
9 attributes:
10   persistVolumes: 'false'
11 components:
12   - id: ms-python/python/latest
13     memoryLimit: 512Mi
14     type: chePlugin
15   - mountSources: true
16     memoryLimit: 512Mi
17     type: dockerimage
18     alias: python
19     image: 'quay.io/eclipse/che-python-3.7:nightly'
20 apiVersion: 1.0.0
21 commands:
22   - name: run
23     actions:
24       - workdir: '${CHE_PROJECTS_ROOT}/python-intro/class01'
25         type: exec
26         command: python project01.py
27         component: python
```

Two yellow arrows are overlaid on the image. The first arrow points to the 'source' section of the 'python-intro' project, specifically to the 'location' field. The second arrow points to the 'actions' section of the 'run' command, specifically to the 'workdir' field.

Setting up your cloud learning environment – Final Step Create Python Workspace.



Setting up your cloud learning environment – Final Step Create Python Workspace.



The screenshot shows a Python IDE interface. At the top, a tab labeled 'project01.py' is open. The main editor area contains the following Python code:

```
1 # Python First Program
2 # Demo some key basics
3 #
4 # Assignment: Change myname to your name and change the numofchi
5 #
6
7 myname = "Zach Lewis more"
8
9 print("My Name is: " + myname);
10
11 numofchildren = 1 + 1 + 1;
12
13 #print("I have " + numofchildren + " Children.");
14
15 print("I have " + str(numofchildren) + " Children.");
16
17
18
```

A yellow arrow points to the comment on line 4: '# Assignment: Change myname to your name and change the numofchi'. On the right side, a sidebar titled 'MY WORKSP...' contains a 'User Runtime' section with a 'python' icon and a 'run' button. Below this is a 'Plugins' section. At the bottom, a 'Problems' panel shows the output of the code:

```
My Name is: Zach Lewis more
I have 3 Children.
□
```

A yellow arrow points to the output text in the Problems panel.

Next Week Seven Concepts

Next Week we will explain the seven key concepts of programming.

1. Data Storage Variables.
2. Control - Conditional statements (“if” statements) ...
3. Control - Looping and iteration. ...
4. Data Representation - Data types and data structures. ...
5. Control - Functions.
6. Statements
7. Expressions