

Assisted Practice 12.6: Polymorphism

Problem Scenario: Write a program to demonstrate polymorphism using classes, objects, and methods.

Objective: In this demonstration, we will learn how to perform polymorphism.

Expected Output:

Employee ID of employee1 is: 2428

Employee 1 name is: Leonard

Employee ID of employee1 is: 2429

Employee 2 name is: Sheldon

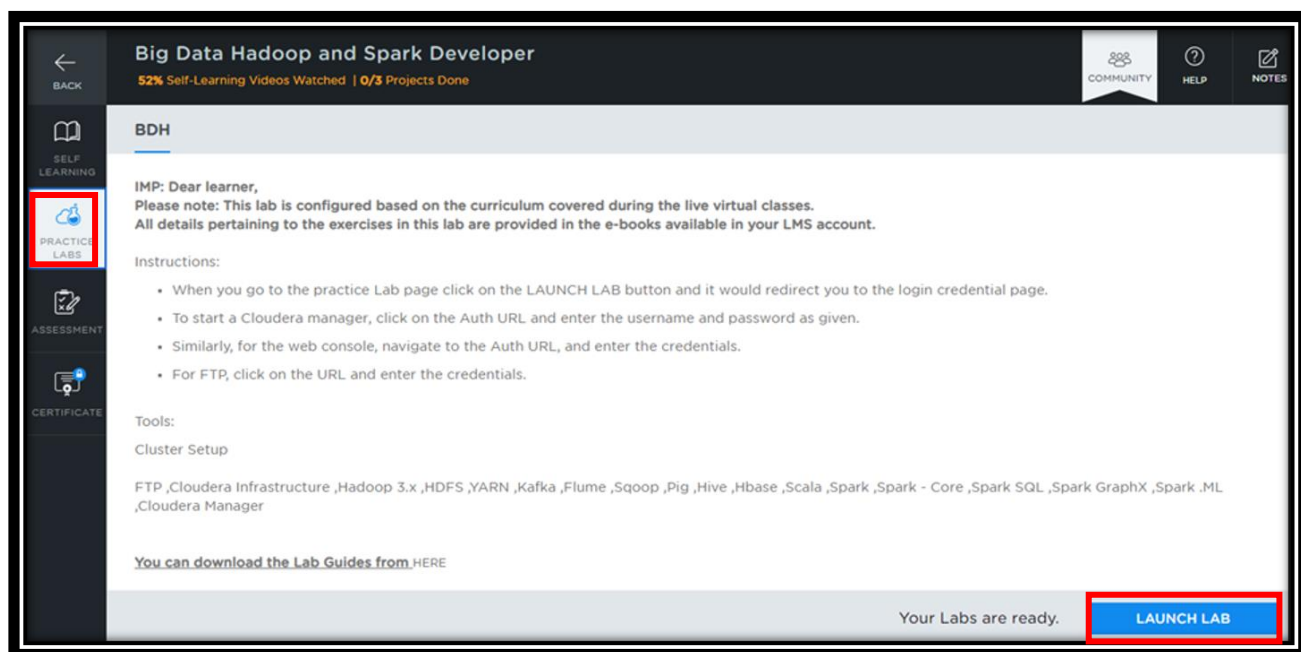
Steps to Perform:

Step 1: Log in to your LMS account.

Step 2: Open the course “**Big data Hadoop and Spark developer**”.

(Note: The course name reflects depending on the program purchased)

Step 3: On the left side, click on the “**PRACTICE LABS**” tab and click on the “**LAUNCH LAB**” button.



Big Data Hadoop and Spark Developer
52% Self-Learning Videos Watched | 0/3 Projects Done

BDH

IMP: Dear learner,
Please note: This lab is configured based on the curriculum covered during the live virtual classes.
All details pertaining to the exercises in this lab are provided in the e-books available in your LMS account.

Instructions:

- When you go to the practice Lab page click on the LAUNCH LAB button and it would redirect you to the login credential page.
- To start a Cloudera manager, click on the Auth URL and enter the username and password as given.
- Similarly, for the web console, navigate to the Auth URL, and enter the credentials.
- For FTP, click on the URL and enter the credentials.

Tools:

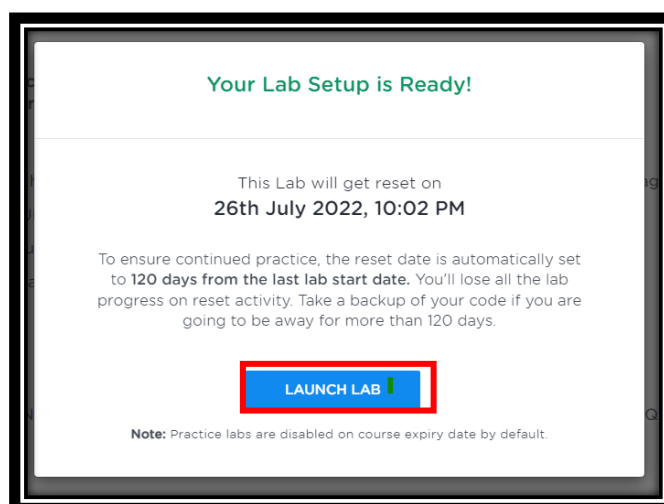
Cluster Setup

FTP ,Cloudera Infrastructure ,Hadoop 3.x ,HDFS ,YARN ,Kafka ,Flume ,Sqoop ,Pig ,Hive ,Hbase ,Scala ,Spark ,Spark - Core ,Spark SQL ,Spark GraphX ,Spark .ML ,Cloudera Manager

[You can download the Lab Guides from HERE](#)

Your Labs are ready. **LAUNCH LAB**

Step 4: Again, click on the “**LAUNCH LAB**” button.



Your Lab Setup is Ready!

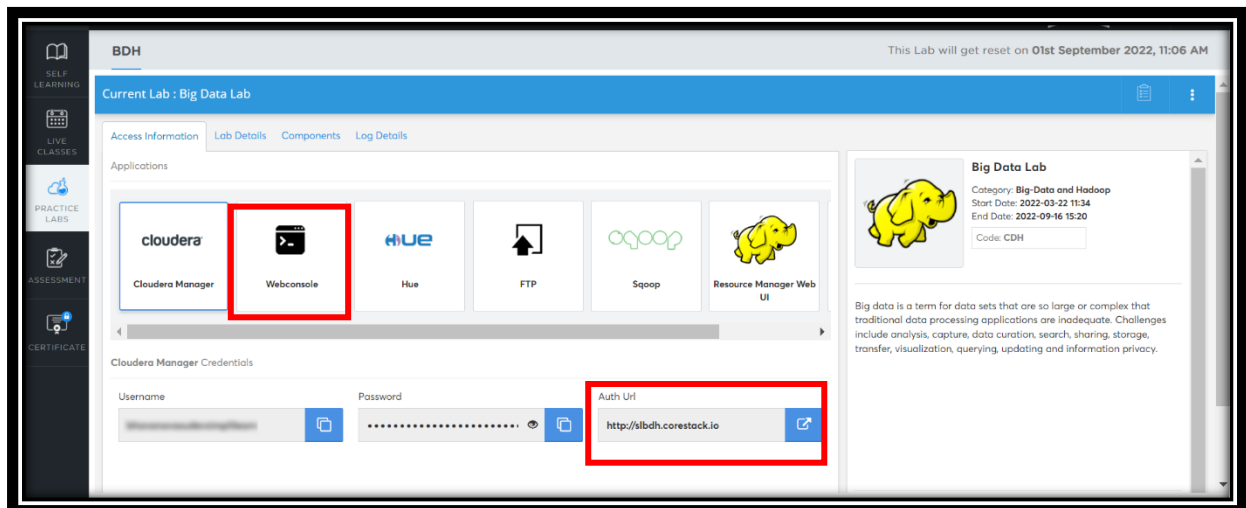
This Lab will get reset on
26th July 2022, 10:02 PM

To ensure continued practice, the reset date is automatically set to **120 days from the last lab start date**. You'll lose all the lab progress on reset activity. Take a backup of your code if you are going to be away for more than 120 days.

LAUNCH LAB

Note: Practice labs are disabled on course expiry date by default.

STEP 5: Click on “**Webconsole**” and click on the “**Auth Url**”.



Step 6: Copy the “Username” and the “Password” provided to log in to the Web console.

Step 7: Paste the “Username” and the “Password” on the console and click on enter.

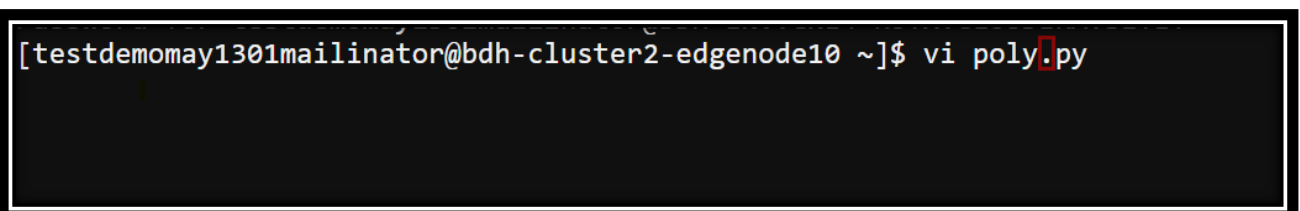
Note: The password will not be visible when pasted on the console



Step 8: Create a python file

Command:

vi poly.py



The below screen appears:

**Step 9:** Perform the tasks.

9.1 Create two classes with the names employee1 and employee2 that contain the same method names.

Command:

```
class Employee1():  
  
    def EmployeeId(self):  
  
        print("Employee ID of employee1 is: 2428 .")  
  
    def Name(self):  
  
        print("Employee 1 name is : Leonard")  
  
class Employee2():  
  
    def EmployeeId(self):  
  
        print("Employee ID of employee1 is: 2429")  
  
    def Name(self):  
  
        print("Employee 2 name is : Sheldon")
```

9.2 Create the objects of the base class and call the methods.

Command:

```
obj_employee1 = Employee1()

obj_employee2 = Employee2()

for i in (obj_employee1 , obj_employee2):

    i.EmployeeId()

    i.Name()
```

```
class Employee1():
    def EmployeeId(self):
        print("Employee ID of employee1 is: 2428")
    def Name(self):
        print("Employee 1 name is : Leonard")

class Employee2():
    def EmployeeId(self):
        print("Employee ID of employee1 is: 2429")
    def Name(self):
        print("Employee 2 name is : Sheldon")

obj_employee1 = Employee1()
obj_employee2 = Employee2()

for i in (obj_employee1 , obj_employee2):
    i.EmployeeId()
    i.Name()

~
~
```

9.3 Run the code.

Command:

```
python3 poly.py
```

```
[testdemomay1301mailinator@bdh-cluster2-edgenode10 ~]$ python3 poly.py  
Employee ID of employee1 is: 2428  
Employee 1 name is : Leonard  
Employee ID of employee1 is: 2429  
Employee 2 name is : Sheldon
```