Java Plays : Eclipse Lab 2

Continuous Integration using DevOps

Presented by:

IBM

ECOD

IBM Cloud

AGENDA

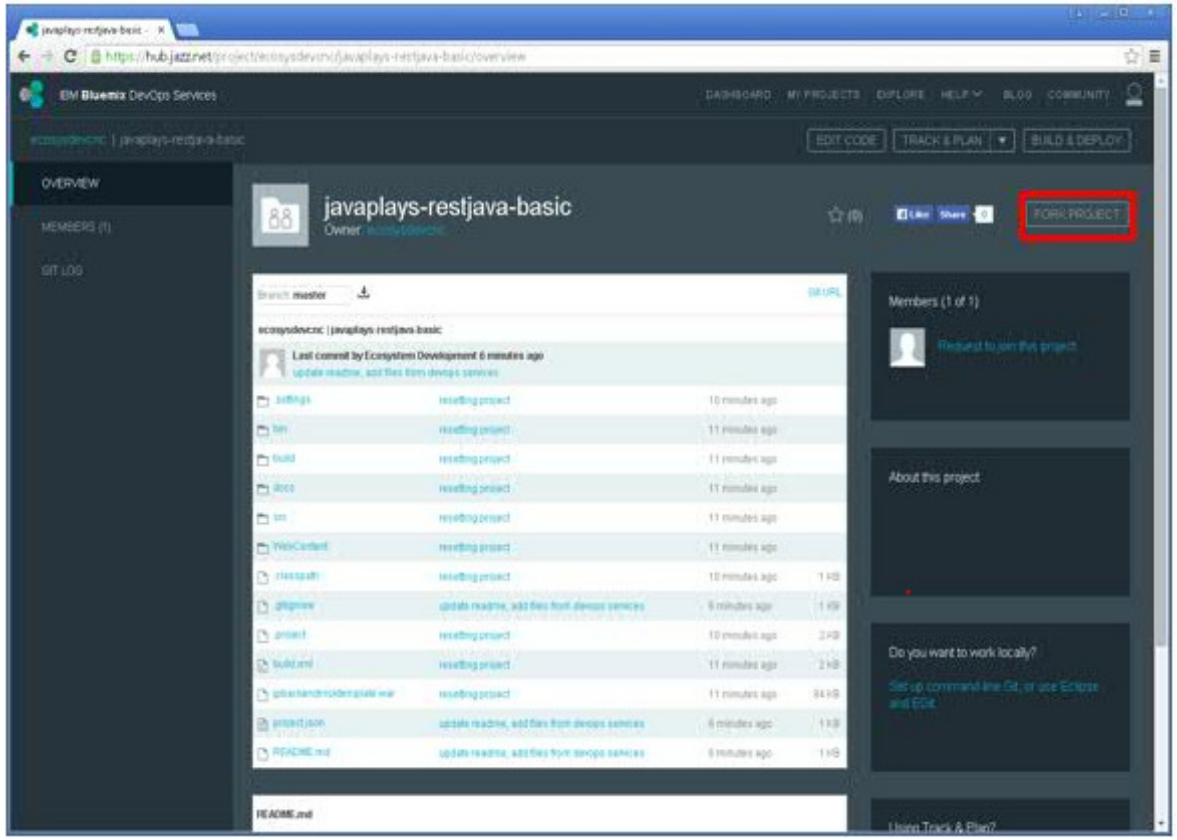
- ❑Purpose of This Lab
- ❑Step 1: Fork DevOps Services Project
- ❑Step 2: Configure and Run Build and Deploy Pipeline
- ❑Step 3: Test App with Postman
- ❑Step 4: Modify Code in DevOps
- ❑Step 5: Push to Trigger Pipeline
- ❑Step 6: Test App with Postman
- ❑Summary

Purpose of This Lab

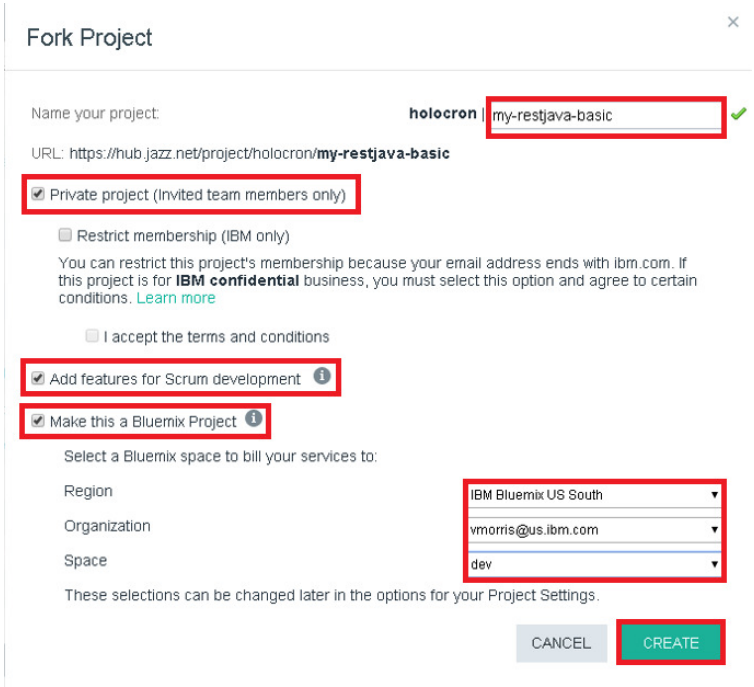
In this lab, you will learn how to fork a Project in DevOps, edit code and build using DevOps, and finally deploy the project on Bluemix using DevOps. Everything on Bluemix!

Step 1: Fork DevOps Services Project

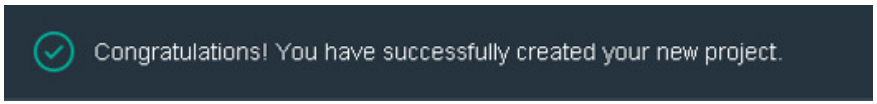
- Browse to ***hub.jazz.net***
  (***https://hub.jazz.net/project/ecosysdevcnc/javaplays-restjava-basic/overview***)
- Click ***FORK PROJECT***



- Enter ***Project Name***
- Check the following checkbox:
  - ***Private project***
  - ***Add features for Scrum development***
  - ***Make this a Bluemix Project***
- Select ***Region, Organization*** and ***Space***
- Click ***CREATE***



❑Success Message

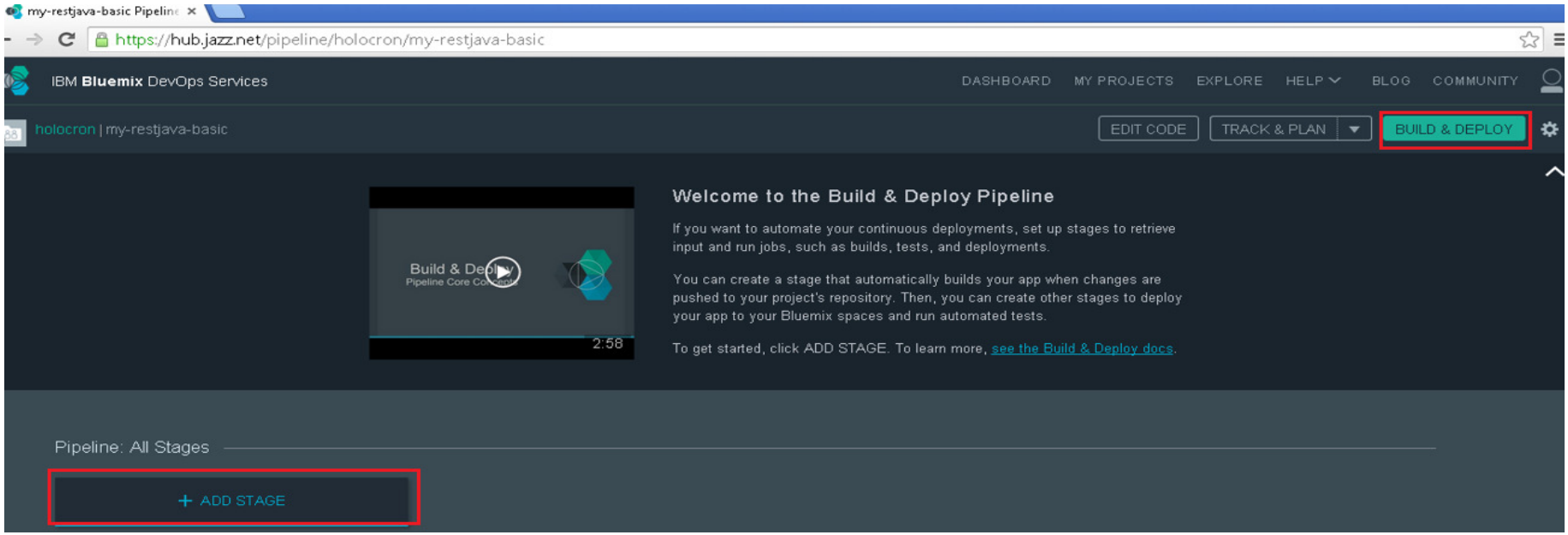


Step 2: Configure and Run Build and Deploy Pipeline

To create build and deploy stage

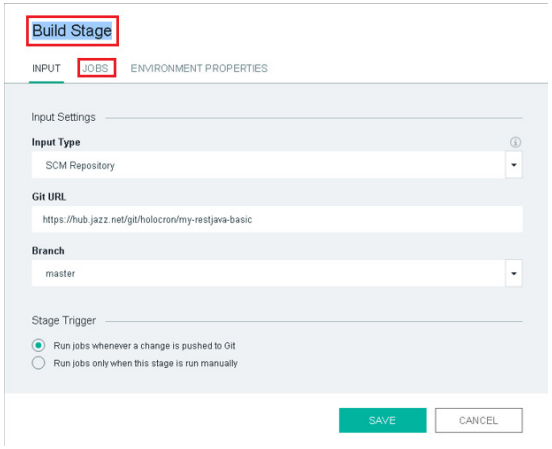
❑Click ***BUILD & DEPLOY***

❑Click ***ADD STAGE***



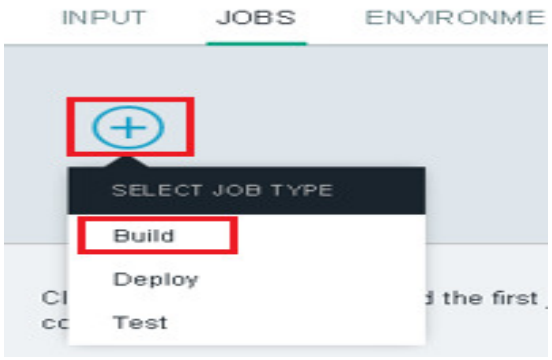
BUILD STAGE

- ❑Enter Stage name
- ❑Click ***JOBS*** tab



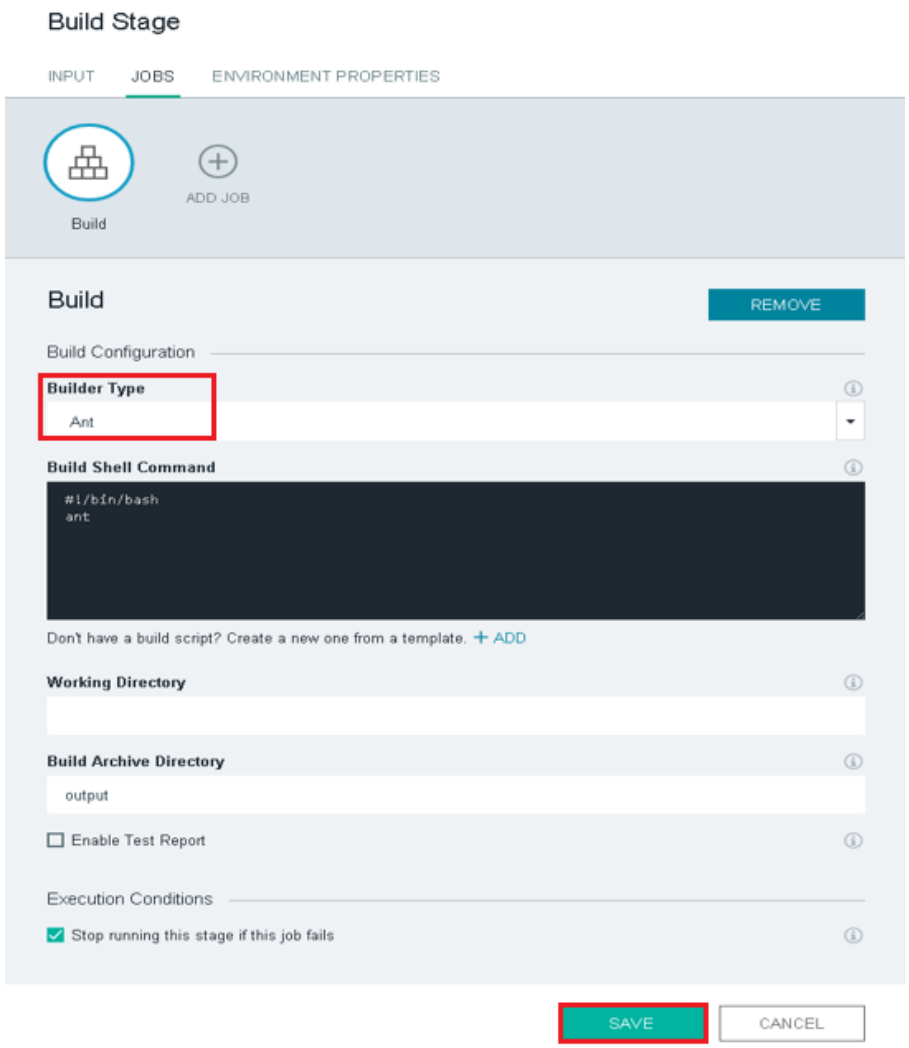
- ❑Click ***ADD JOB***

- ❑Select ***Build***



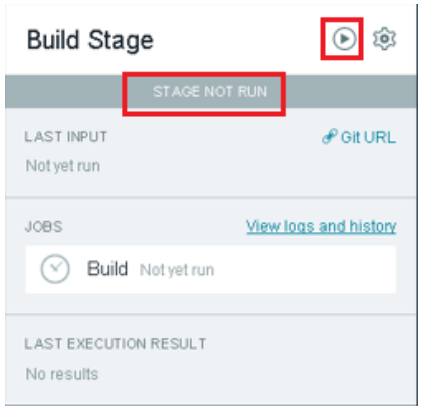
BUILD STAGE (Continue)

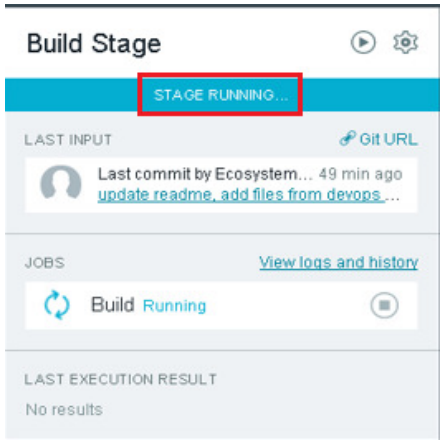
- ❑Choose ***ANT*** for Builder Type
- ❑Click ***SAVE***

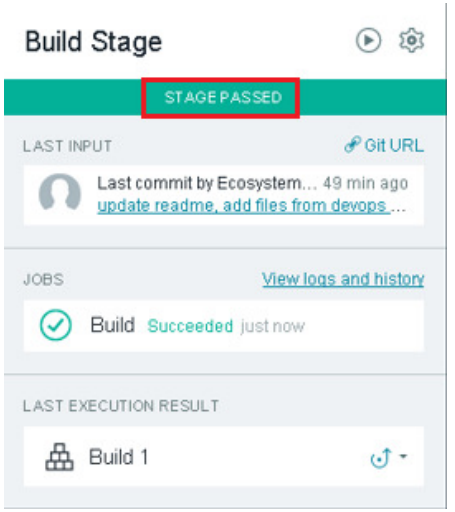


RUN BUILD STAGE

- ❑See the ***Build Stage*** at the pipeline
- ❑Click ⊙ (Run Stage Icon)
- ❑Observe ***Stage Status*** change from *Stage Not Run > Stage Running > Stage Passed*

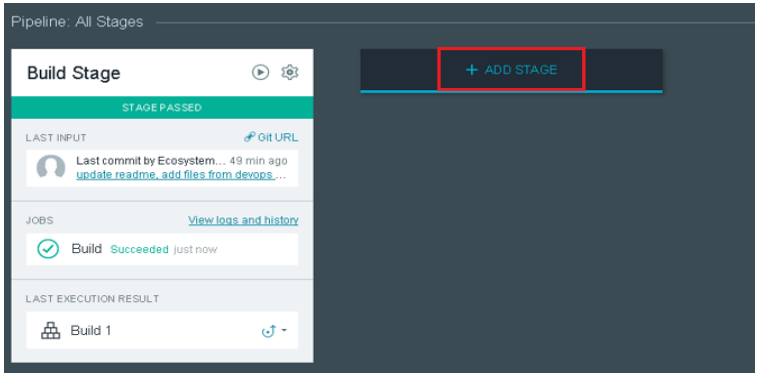






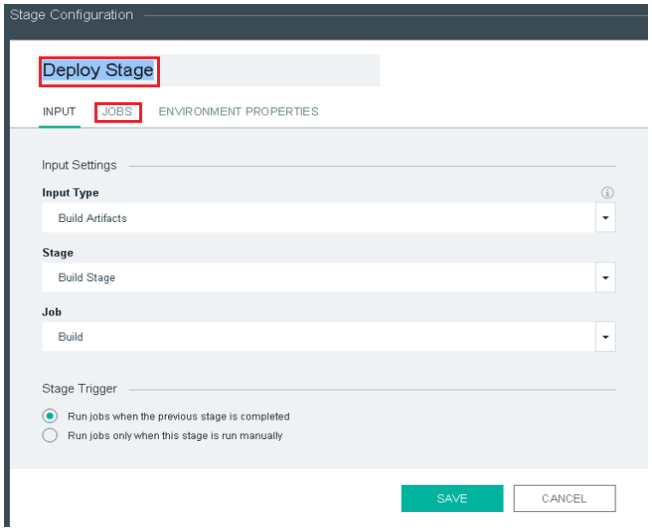
DEPLOY STAGE

- ❑At the Pipeline page, click ***ADD STAGE***



- ❑Enter Stage name

- ❑Click ***JOBS*** tab



DEPLOY STAGE (Continue)

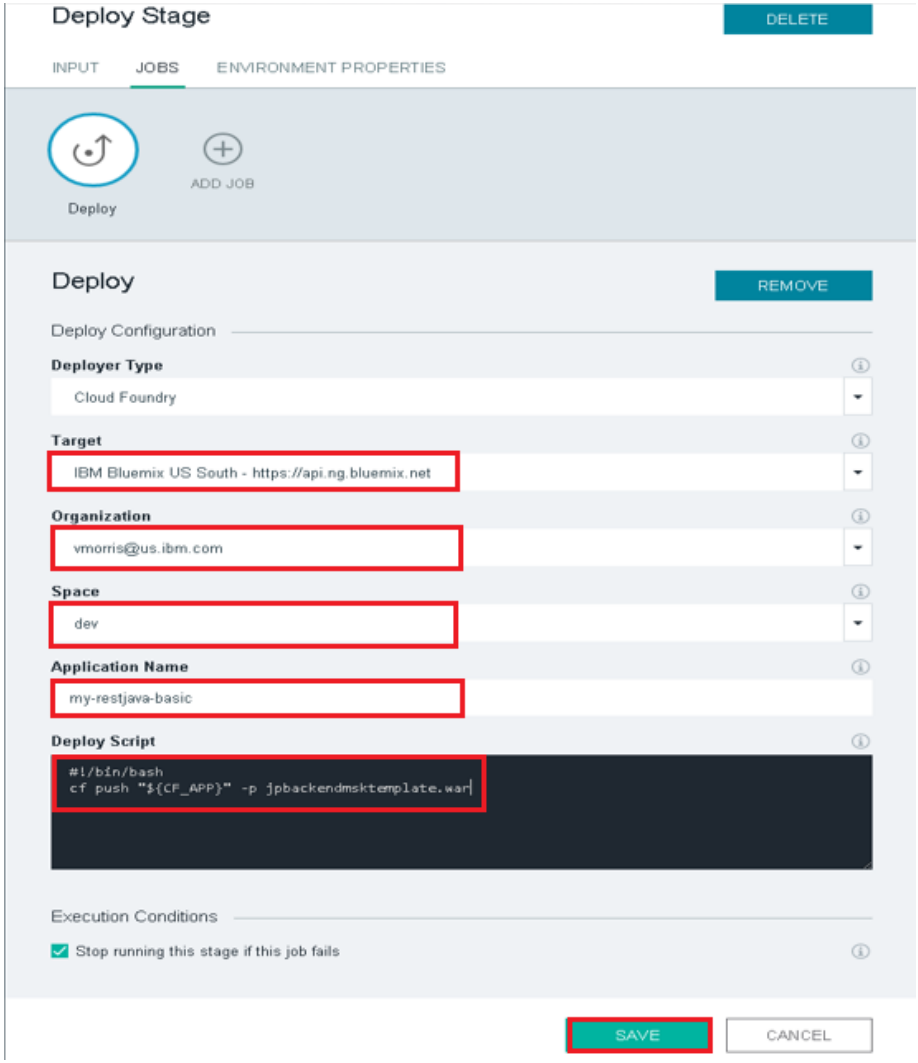
- ❑Click ***ADD JOB***

- ❑Select ***Deploy***

- ❑Verify the following
  - ❑ ***Target***
  - ❑ ***Organization***
  - ❑ ***Space***
  - ❑ ***Application Name***

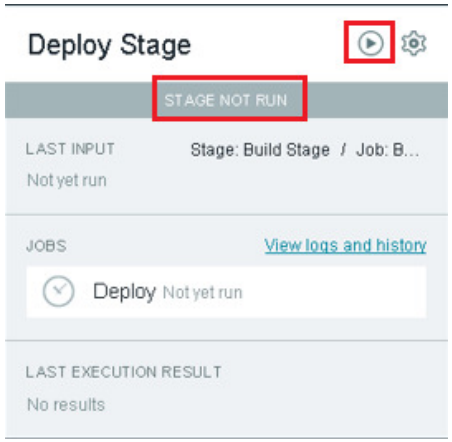
- ❑Edit the Deploy Script
  (cf push "${CF_APP}" –p jpbackendmsktemplate.war)

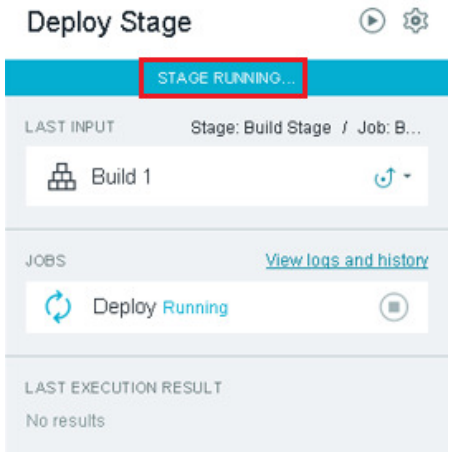
- ❑Click ***SAVE***

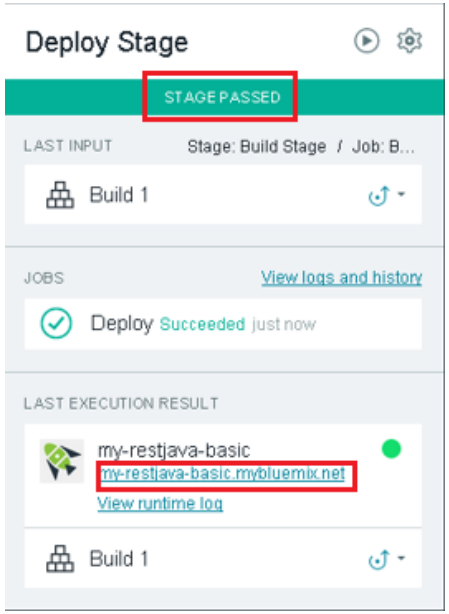


RUN DEPLOY STAGE

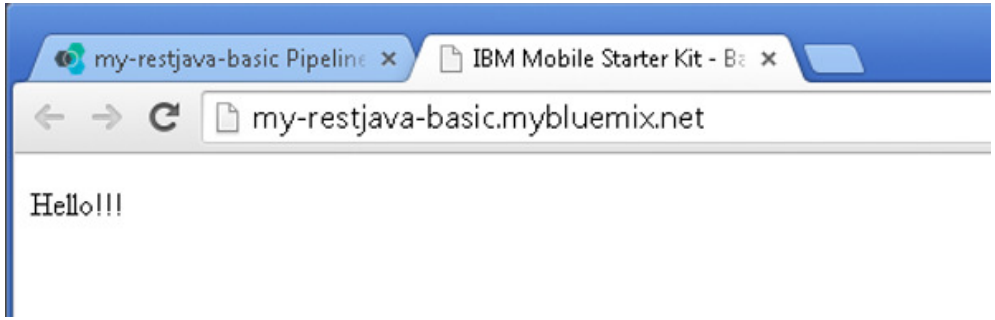
- ❑See the ***Deploy Stage*** at the pipeline
- ❑Click ⊙ (Run Stage Icon)
- ❑Observe ***Stage Status*** change from *Stage Not Run > Stage Running > Stage Passed*
- ❑Click on the link <your hostname>.mybluemix.net to access the deployed application







- Success page

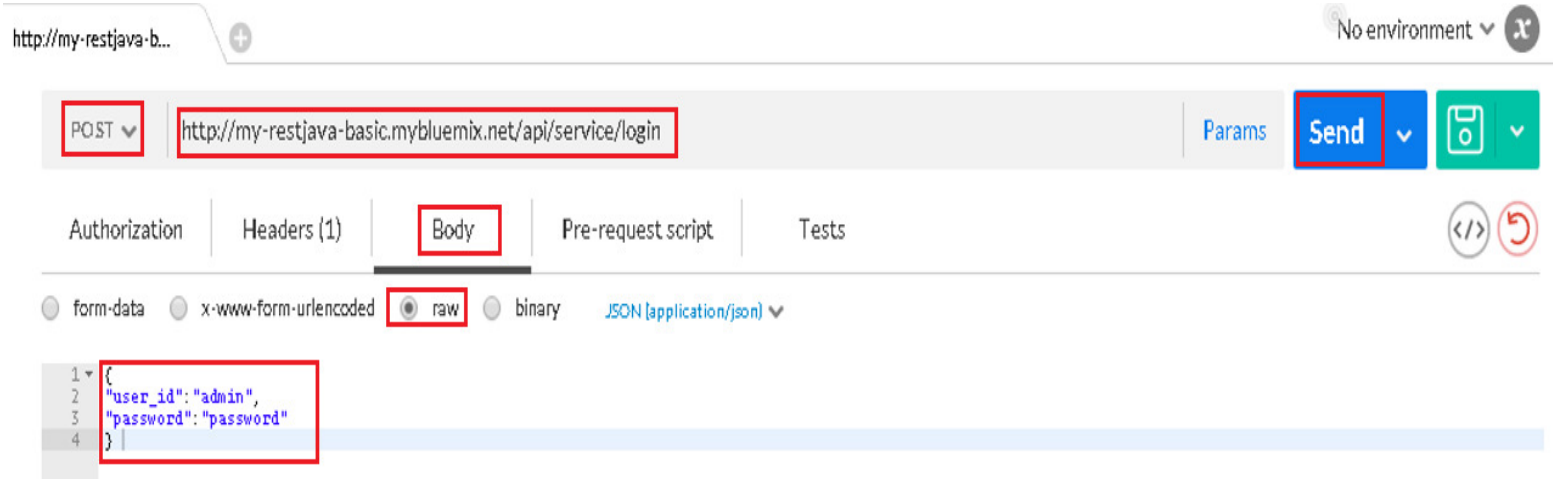


Step 3: Test App with Postman

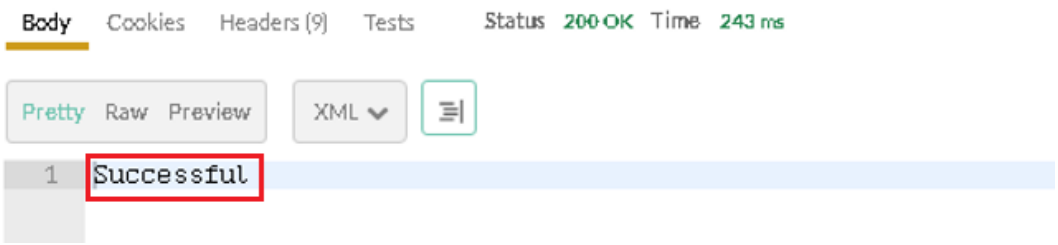
- ❑Open ***Postman*** extension page in Chrome browser
- ❑Change to ***POST*** method
- ❑Enter http://<your hostname>.mybluemix.net/api/service/login
- ❑Click ***Body*** tab
- ❑Select ***raw***
- ❑Enter the following

```
{
        “user_id”: “admin”,
        “password”: “password”
}
```

- ❑Click ***Send***



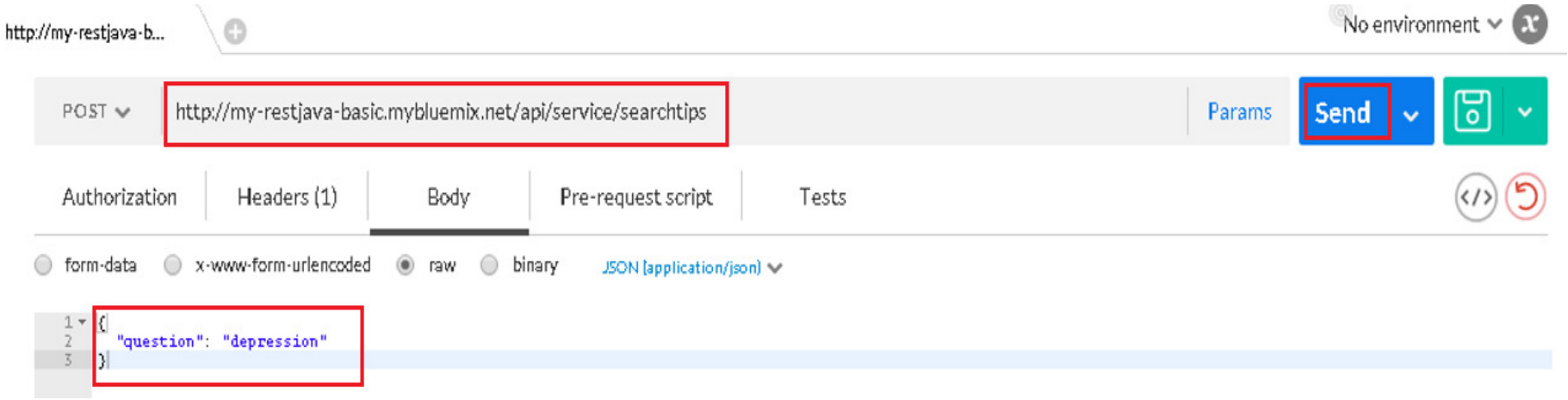
❑Success message



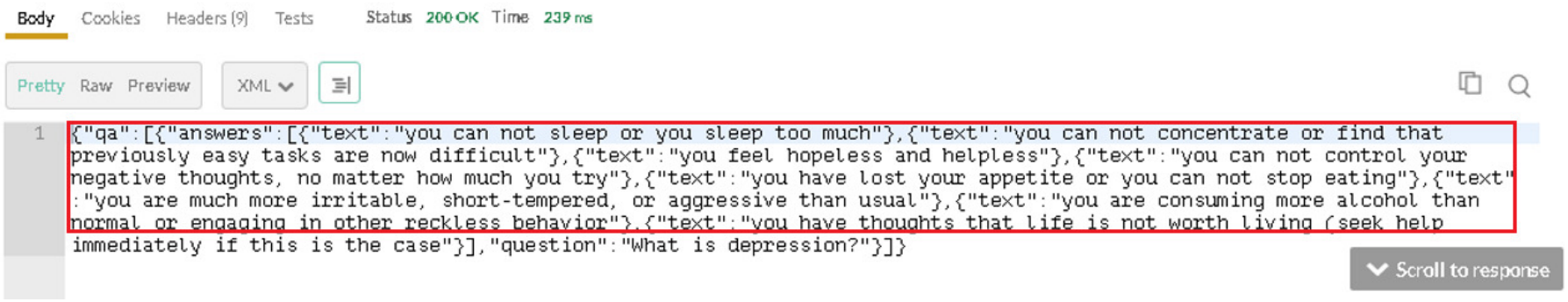
- Change url to http://<your hostname>.mybluemix.net/api/service/searchtips
- Enter the following

```
{
    "question": "depression"
}
```

- Click ***Send***

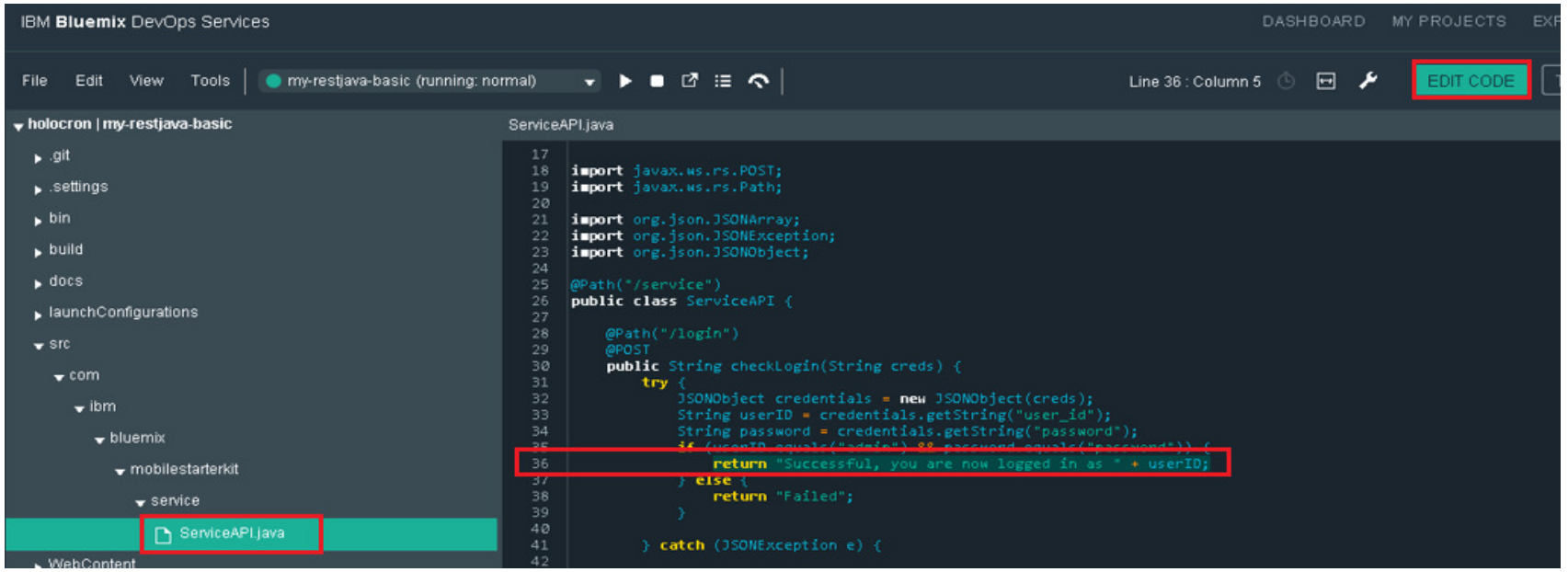


❑Success message

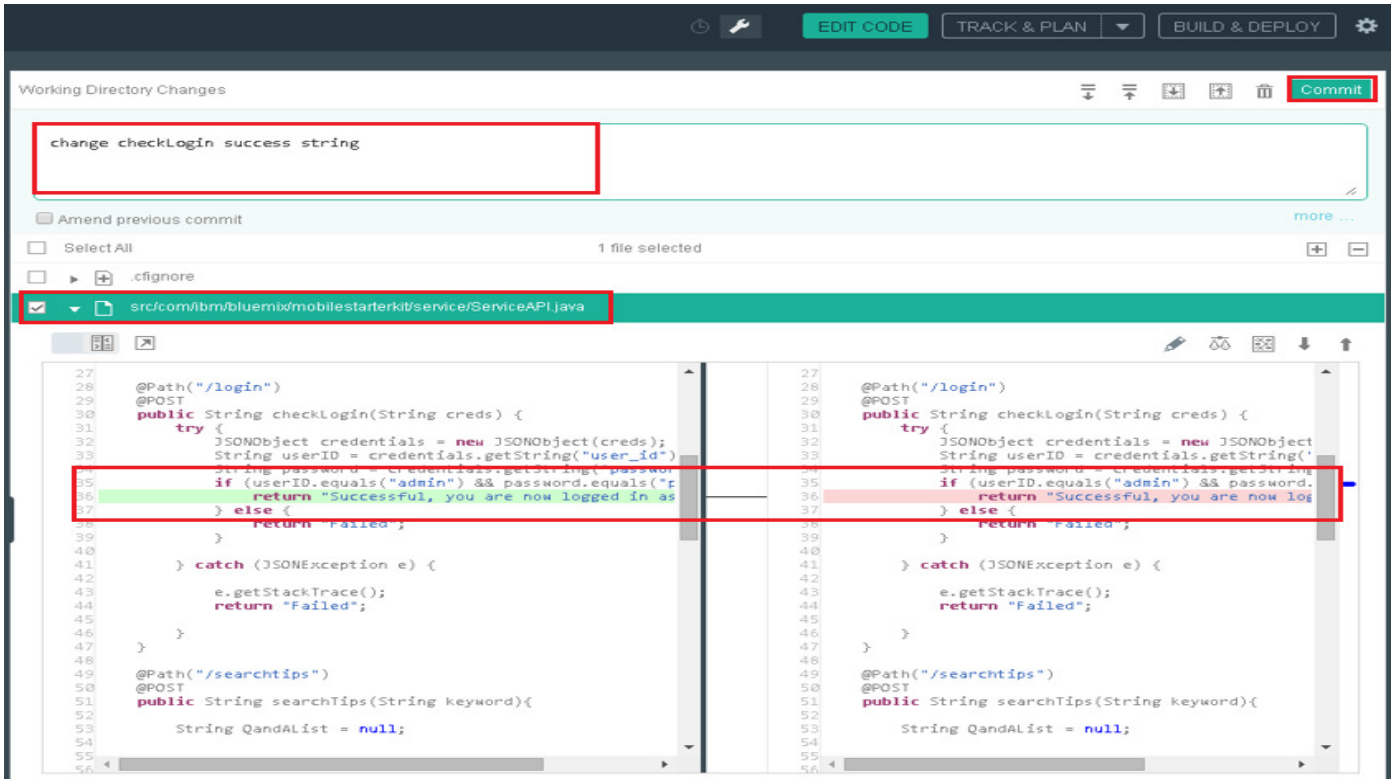


Step 4: Modify Code in DevOps

- ❑Click ***EDIT CODE***
- ❑Go to ***src > com > ibm > bluemix > mobilestarterkit > ServiceAPI.java***
- ❑Edit line 36 to change the success message returned during Postman API POST call
- ❑***Save*** the changes

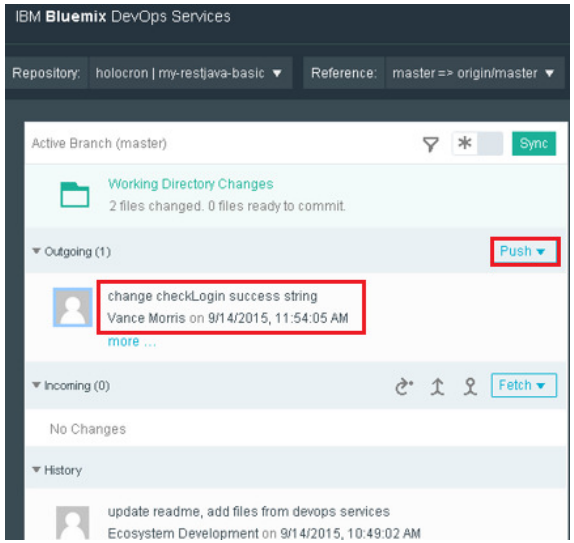


- ❑Click ***Git Repository*** icon
- ❑View and compare **before** and **after** changes
- ❑Add commit message
- ❑Click ***Commit***



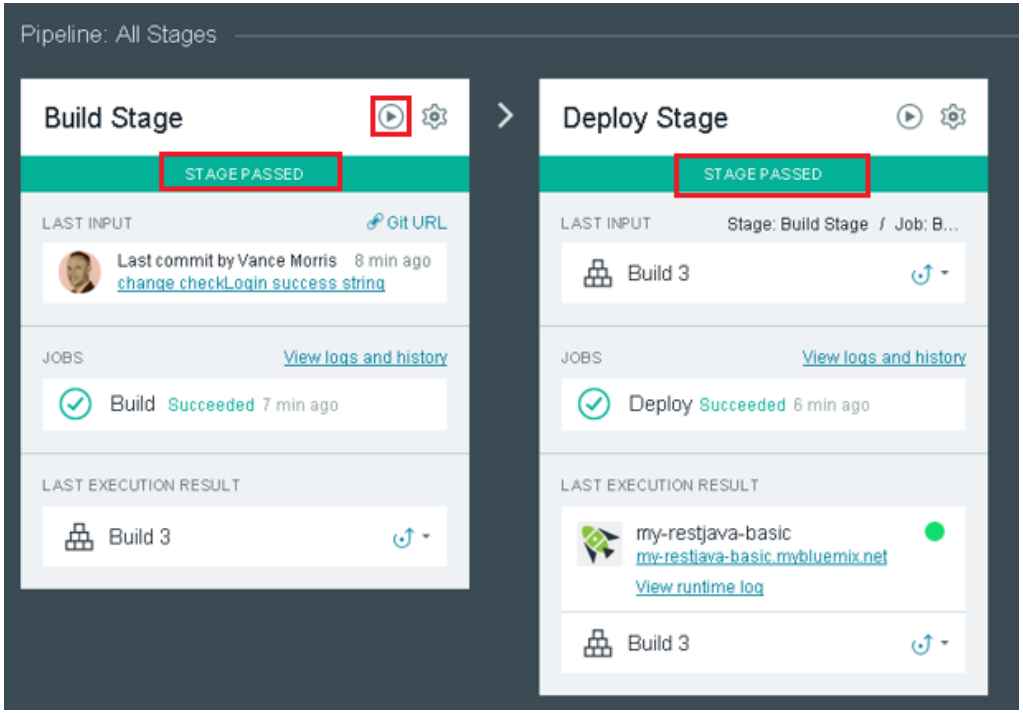
Step 5: Push to Trigger Pipeline

❑Click ***Push***



❑***Success*** *message*

- ❑Click ***BUILD & DEPLOY***
- ❑On the **Build Stage**, click ⊙ (Run Stage button)
- ❑Wait till you see both **Build Stage and Deploy Stage** with status ***STAGE PASSED***



Step 6: Test Modified App with Postman

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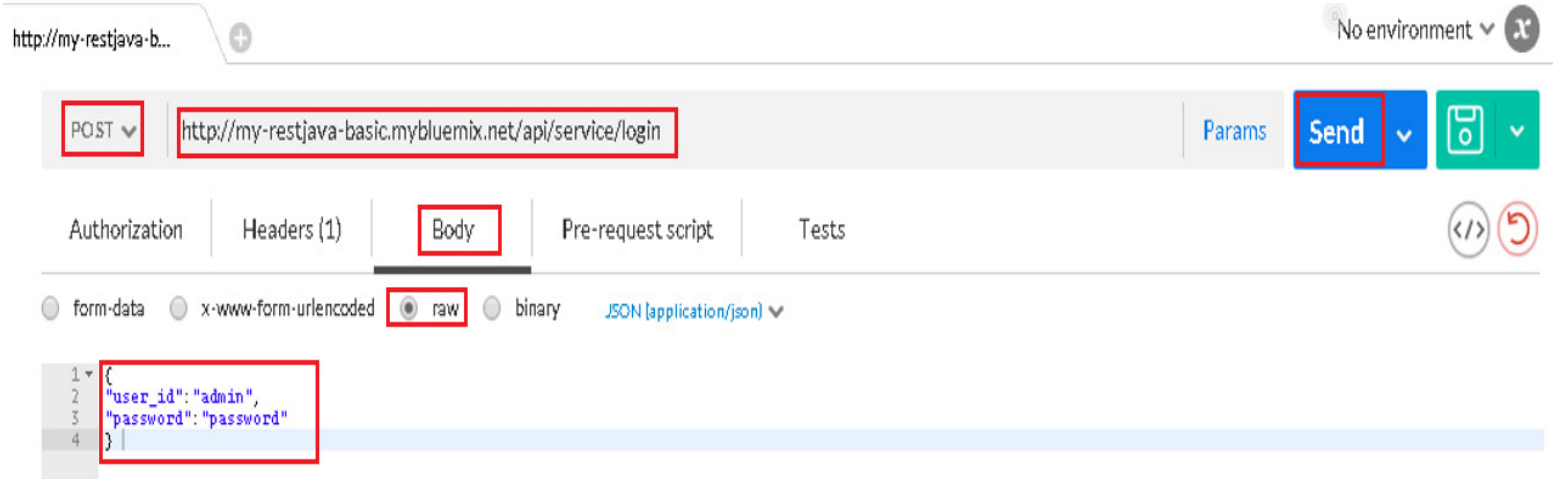
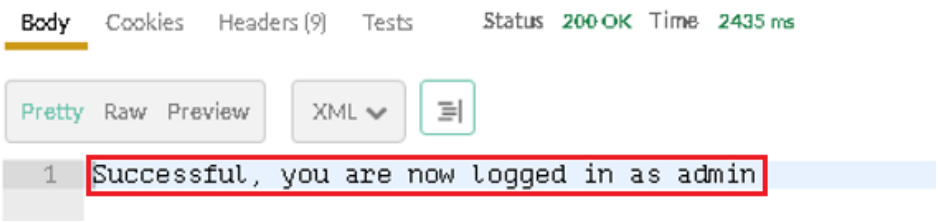
- ❑Click ***Body*** tab
- ❑Select ***raw***
- ❑Enter the following

```
{
        “user_id”: “admin”,
        “password”: “password”
}
```

- ❑Click ***Send***



❑Success message



Summary

In this lab, you learned how to fork a Bluemix project from an existing one, to create the build and deploy stage, to edit the project using DevOps service, to commit and push the changes.

The entire Java application development and deployment cycle can be implemented on a single platform!

This ends the Eclipse Lab 2 Build and Deploy Java Application on Bluemix Server.

Thank you !