

Deployment 4 documentation

First I made my AWS user called test user and gave it Admin access to elastic beanstalk



Once I made my account, I made sure to download the ,CSV file(which contains test user's access key, and secret access key) so I can use it later. If you forget to do that it is ok because you can make a new csv key.

Then I followed the documentation for deployment 4 pdf instructions to create an elastic beanstalk and created a Jenkins freestyle project for the URL shortener.

After I tried using **build now** on my Jenkins to run my app it gave me an error.

Console Output

```
Started by user Bishajit
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/Deployment4
The recommended git tool is: NONE
using credential Deployment4
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Deployment4/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bishajit/DEPLOY4_FLASK_APP # timeout=10
Fetching upstream changes from https://github.com/Bishajit/DEPLOY4_FLASK_APP
> git --version # timeout=10
> git --version # 'git version 2.32.0'
using GIT_ASKPASS to set credentials token for deployment4
> git fetch --tags --force --progress -- https://github.com/Bishajit/DEPLOY4_FLASK_APP +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 428bbca608d84ca57d108478c55730202cace5ae (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 428bbca608d84ca57d108478c55730202cace5ae # timeout=10
Commit message: "Create .gitignore"
> git rev-list --no-walk 428bbca608d84ca57d108478c55730202cace5ae # timeout=10
AWS EB Deployment Plugin Version 0.3.21 (aws-java-sdk version: 1.11.995)
Using region: us-east-2
Zipping contents of Root File Object (Deployment4) into tmp file awseb-2621585403568781514.zip (includes=, excludes=)
Using archive /tmp/awseb-2621585403568781514.zip
bucketName not set. Calling createStorageLocation
Using s3 Bucket elasticbeanstalk-us-east-2-323867645900
Uploading file awseb-2621585403568781514.zip as s3://elasticbeanstalk-us-east-2-323867645900/urlshort1-python-01$(BUILD_ID).zip
Creating application version python-01$(BUILD_ID) for application urlshort1 for path s3://elasticbeanstalk-us-east-2-323867645900/urlshort1-python-01$(BUILD_ID).zip
Cleaning up temporary file /tmp/awseb-2621585403568781514.zip
FATAL: Deployment Failure
com.amazonaws.services.elasticbeanstalk.model.AWSElasticBeanstalkException: Application Version python-01$(BUILD_ID) already exists. (Service: AWSElasticBeanstalk; Status Code: 400; Error Code: InvalidParameterValue; Request ID: d666d20e-36f4-4044-af11-bf416bc988a4; Proxy: null)
```

Application Version python-01\$(BUILD_ID) already exists.

The error I got was because, in my Jenkins, the versioning label format should be python-01\${BUILD_ID} not python-01\$(BUILD_ID).

After I did that, it worked correctly.



Console Output

```
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The recommended git tool is: NONE
using credential Deployment4
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Deployment4/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Bishajit/DEPLOY4_FLASK_APP # timeout=10
Fetching upstream changes from https://github.com/Bishajit/DEPLOY4_FLASK_APP
> git --version # timeout=10
> git --version # 'git version 2.32.0'
using GIT_ASKPASS to set credentials token for deployment4
> git fetch --tags --force --progress -- https://github.com/Bishajit/DEPLOY4_FLASK_APP +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision 428bbca608d84ca57d108478c55730202cace5ae (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 428bbca608d84ca57d108478c55730202cace5ae # timeout=10
Commit message: "Create .gitignore"
> git rev-list --no-walk 428bbca608d84ca57d108478c55730202cace5ae # timeout=10
AWS Deployment Plugin Version 0.3.21 (aws-java-sdk version: 1.11.995)
Using region: us-east-2;
Zipping contents of Root File Object (Deployment4) into tmp file awseb-1263994017558658385.zip (includes=, excludes=)
Using archive /tmp/awseb-1263994017558658385.zip;
bucketName not set. Calling createStorageLocation
Using s3 Bucket elasticbeanstalk-us-east-2-323867645900;
Uploading file awseb-1263994017558658385.zip as s3://elasticbeanstalk-us-east-2-323867645900/url-shortner-python-0130.zip
Creating application version python-0130 for application url-shortner for path s3://elasticbeanstalk-us-east-2-323867645900/url-shortner-python-0130.zip
Created version: python-0130
Using environmentId e-kcv4kupc4m;
No pending Environment Updates. Proceeding.
Checking health/status of environmentId e-kcv4kupc4m attempt 1/30
Environment Status is Ready; Moving on.
Updating environmentId e-kcv4kupc4m; with Version Label set to python-0130;
Checking health/status of environmentId e-kcv4kupc4m attempt 1/30
Versions reported: (current: python-0130, underDeployment: python-0130). Should I move on? false
Checking health/status of environmentId e-kcv4kupc4m attempt 2/30
Versions reported: (current: python-0130, underDeployment: python-0130). Should I move on? false
Environment Status is Ready; and Health is Green; Moving on.
Deployment marked as successful; Starting post-deployment cleanup.
VersionLabels are matching for environmentId e-kcv4kupc4m; and version: python-0130;
Cleaning up temporary file /tmp/awseb-1263994017558658385.zip
Finished: SUCCESS
```

Build #30 (Aug 31, 2021 1:58:15 AM)



No changes.



Started by user [Bishajit](#)



Revision: 428bbca608d84ca57d108478c55730202cace5ae

Repository: https://github.com/Bishajit/DEPLOY4_FLASK_APP

- refs/remotes/origin/main

Also after my Jenkins pipeline was working I checked if the elastic beanstalk url was working. So when I click on the link in elastic beanstalk, this appears which means GitHub code was working properly.

URL Shortener

API [New URL](#)

Website

Short Name

Website URL

[Shorten](#)


Next, I needed to deploy the Todo app

To do app


To deploy the todo app, I had to do the same steps for doing the url shortener. However, When I tried to run the todo app I created prior to this deployment it didn't run because its health would get degraded for some reason when its Jenkins pipeline would finish. I found out this was the case because elastic beanstalk doesn't recognize the file if it isn't called (application.py). My file was called (app.py) so it wasn't running. Not only did I have to change the name but I had to change this command in the newly renamed application.py by adding the command `application = app = Flask(__name__)` which was `app = Flask(_name_)`. When I changed the name to the application.py and changed it, it ran perfectly.


All environments										
<div>Filter results matching the display values</div>										
<div>Actions ▼ Create a new environment</div>										
<div>< 1 > ⌂</div>										
Environment name ▲	Health ▼	Application name ▼	Date created ▼	Last modified ▼	URL ▼	Running versions ▼	Platform ▼	Platform state ▼	Tier name ▼	
<input type="radio"/> Flasktodoapp-env (terminated)	-	FlaskToDoApp	2021-09-04 15:38:58 UTC-0400	2021-09-04 18:04:02 UTC-0400	Flasktodoapp-env.eba-hxkbry2d.us-east-2.elasticbeanstalk.com	python-016	Python 3.8 running on 64bit Amazon Linux 2	Supported	WebServer	
<input type="radio"/> Todo-env	Ok	todo	2021-09-04 18:02:45 UTC-0400	2021-09-04 18:10:32 UTC-0400	Todo-env.eba-p5ly3g2x.us-east-2.elasticbeanstalk.com	python-011	Python 3.8 running on 64bit Amazon Linux 2	Supported	WebServer	

 [Back to Dashboard](#)

 **Status**


 **Changes**


 **Workspace**

 **Build Now**

 **Configure**

 **Delete Project**

 **Rename**

 **Build History** **trend** ^


find ×

 **#1** [Sep 4, 2021 10:07 PM](#)

 [Atom feed for all](#)  [Atom feed for failures](#)

Project todo

 **Workspace**

 **Recent Changes**

Permalinks

- [Last build \(#1\), 47 sec ago](#)

Dashboard

todo

#1

Back to Project

Status

Changes

Console Output

Edit Build Information

Delete build '#1'

Git Build Data

Build #1 (Sep 4, 2021 10:07:53 PM)

No changes.

Started by user [Bishajit](#)

git

Revision: 558a6cd10912e701281dab961f35cdde6235d9eb

Repository: <https://github.com/Bishajit/HW-todo-api>

• refs/remotes/origin/main

documentation for deployment x Elastic Beanstalk Environments x todo-env.eba

Not secure | todo-env.eba-p5iy3g2x.us-east-2.elasticbeanstalk.com

Hello World!

documentation for deployment x Elastic Beanstalk Environments x todo-env.eba-p5iy3g2x.us-east-2 x todo-env.eba-p5iy3g2x.us-east-2 x Elastic Beanstalk Environments x todo #1 [Jenkins] x +

Not secure | todo-env.eba-p5iy3g2x.us-east-2.elasticbeanstalk.com/item/all

```
{
  "count": 0,
  "items": []
}
```

documentation for deployment x Elastic Beanstalk Environments x todo-env.eba-p5iy3g2x.us-east-2 x todo-env.eba-p5iy3g2x.us-east-2 x

Not secure | todo-env.eba-p5iy3g2x.us-east-2.elasticbeanstalk.com/item/all_item

```
[]
```

News custom app

For my custom app, I created an app that can get the headlines from an api and save it in a database.

The api I used is the news API <https://newsapi.org/>

This api allowed me to grab the headline. As a template, I followed this video on how to create an app.

Python Flask Create News Web Application With News API

<https://www.youtube.com/watch?v=l5syfw5zgnc>

This video also helped me understand the new api better

https://www.youtube.com/watch?v=oUuIVJ96Jsl&ab_channel=IzzyAnalytics

I went through a lot of issues with connecting my database to my application.py because I was trying to do it on my own but it was going well. This is where stack overflow helped me

<https://stackoverflow.com/questions/55258575/insert-data-into-sqlite3-database-with-api>

Even after learning how to connect my application and my sqlite database. It was not working with the todo method using post. So instead I just connected my application.py instead of trying to go todo post route.

This is the abandoned method i tried to implement

```
# import sqlite3
# import requests
# from newsapi.newsapi_client import NewsApiClient
# import collections

# DB_PATH = "news.db"
# current_date = dt.date.today
# newsapi = NewsApiClient(api_key="1ec0f2aedee24c70b1eecb0f97e30d26")

# def add_to_list(article):
#     try:
#         conn = sqlite3.connect(DB_PATH)

#         # Once a connection has been established, we use the cursor
#         # object to execute queries
#         api_req = requests.get( "https://newsapi.org/v2/top-headlines?sources=engadget&apiKey=1ec0f2aedee24c70b1eecb0f97e30d26")
#         api_req = api_req.json()

#         extracted_articles = api_req["articles"]["source"]

#         c = conn.cursor()

#         for ex in extracted_articles:
#             article = ex["titles"]
#             DateViewed = current_date
#             sql = 'INSERT INTO news (article, DateViewed) VALUES(?,?)'
#             val = (article,DateViewed)
#             c.execute(sql,val)
```

This is what worked becaUSE i added to my application.py instead of trying to make it a method

```
DB_PATH = "news.db"

conn = sqlite3.connect(DB_PATH)

api_req = requests.get("https://newsapi.org/v2/top-headlines?sources=engadget&apiKey=1ec0f2aedee24c70b1eecb0f97e30d26")
api_req = api_req.json()
extracted_articles = api_req["articles"]

c = conn.cursor()

for ex in extracted_articles:
    article = ex['title']
    publication_date = ex['publishedAt']
    sql = 'INSERT INTO news (article, publication_date) VALUES(?,?)'
    val = (article, publication_date)
    c.execute(sql,val)

conn.commit()

if __name__ == "__main__":
    app.run(debug=True)
```