

Containerize The App

The screenshot shows a web browser displaying the IBM Cloud Kubernetes dashboard for a cluster named 'mycluster-free'. The dashboard indicates the cluster is 'Normal' and 'Expires in 30 days'. A 'Kubernetes dashboard' link is visible. On the left sidebar, 'Worker nodes' is selected. The main area shows a table of worker nodes with one node listed: '000000a6' with status 'Normal', worker pool 'default', zone 'Milan 01', private IP '10.144.194.42', public IP '169.51.205.133', and version '1.24.7_1543'. Below the table, it shows 'Items per page: 25' and '1-1 of 1 item'.

Below the browser window, a Notepad window titled 'Dockerfile - Notepad' is open, showing the following Dockerfile content:

```
File Edit Format View Help
FROM python:alpine3.7
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "demo.py" ]
```

The bottom of the image shows a Windows taskbar with various application icons and a system tray displaying the time as 10:05 PM on 15/11/2022.

```
Command Prompt - docker run --name flask-docker-demo-app -p 5001:5001 flask-docker-demo-app
Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Priya Rajes>cd desktop
C:\Users\Priya Rajes\Desktop>cd flask_docker_demo
C:\Users\Priya Rajes\Desktop\flask_docker_demo>docker build --tag flask-docker-demo-app .
[+] Building 1.1s (9/9) FINISHED
=> [internal] load build definition from Dockerfile                                0.0s
=> => transferring dockerfile: 32B                                              0.0s
=> [internal] load .dockerignore                                                 0.0s
=> => transferring context: 2B                                                  0.0s
=> [internal] load metadata for docker.io/library/python:alpine3.7              0.9s
=> [internal] load build context                                                0.0s
=> => transferring context: 94B                                                 0.0s
=> [1/4] FROM docker.io/library/python:alpine3.7@sha256:35f6f83ab08f90c727dbefd53738e3b3174a48b4571ccb1910bae480 0.0s
=> CACHED [2/4] COPY . /app                                                      0.0s
=> CACHED [3/4] WORKDIR /app                                                     0.0s
=> CACHED [4/4] RUN pip install -r requirements.txt                             0.0s
=> exporting to image                                                            0.0s
=> => exporting layers                                                            0.0s
=> => writing image sha256:c83c66892778f244bce634f70ae43183b02aba73d2e43b0a9b1b7152acbc3985 0.0s
=> => naming to docker.io/library/flask-docker-demo-app                        0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\Priya Rajes\Desktop\flask_docker_demo>docker run --name flask-docker-demo-app -p 5001:5001 flask-docker-demo-app
* Serving Flask app 'demo'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5001
* Running on http://172.17.0.2:5001
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 885-860-695
```

```
Command Prompt
Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Priya Rajes>docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS                    NAMES
cf9cd57f16a6   flask-docker-demo-app   "python demo.py"        About a minute ago   Up About a minute   0.0.0.0:5001->5001/tcp   flask-docker-demo-app

C:\Users\Priya Rajes>
```