### **ASSIGNMENT – 4**

#### **Docker and Kubernetes**

Assignment Date	10 October 2022
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Maximum Marks	2 Marks

# Docker File: FROM python:3.10.6 COPY requirements.txt ./app/requirements.txt WORKDIR /app RUN pip install -r requirements.txt COPY.. EXPOSE 5000 CMD ["python","./app.py"] Requirements: Flask app.py: from flask import Flask, render\_template app = Flask(\_\_name\_\_\_) app.config['SECRET KEY'] = 'df3asd24sfasd4asd26@45tas0331cefc6c2b9a5d0208a726a5d1c0fd37324feba25506' @app.route("/") def home(): return render template("home.html") if \_\_name\_\_ == '\_\_main\_\_': app.run(host='0.0.0.0', port=5000, debug=True) **TEMPLATES:** Index.html: <!doctype html> <html lang="en"> <head> <title>Candidate Dashboard</title> <meta charset="utf-8"> <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1"> <meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, userscalable=0"> k rel="stylesheet" href="assets/vendor/bootstrap/css/bootstrap.min.css"> <link rel="stylesheet" href="assets/vendor/font-awesome/css/font-awesome.min.css"> <link rel="stylesheet" href="assets/vendor/linearicons/style.css">

<link rel="stylesheet" href="assets/vendor/chartist/css/chartist-custom.css">

```
<link rel="stylesheet" href="dashboard.css">
  k rel="stylesheet" href="assets/css/main.css">
  <link rel="stylesheet" href="assets/css/demo.css">
  k ref="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400,600,700"
rel="stylesheet">
  k rel="apple-touch-icon" sizes="76x76" href="assets/img/apple-icon.png">
  k rel="icon" type="image/png" sizes="96x96" href="assets/img/favicon.png">
</head>
<body>
  <div id="wrapper">
          <div id="sidebar-nav" class="sidebar">
                 <div class="sidebar-scroll">
                         <nav>
                                <a href="index.html" class="active"><i class="Inr Inr-
home"></i> <span>Dashboard</span></a>
                                        <a href="page-profile.html" class=""><i class="Inr Inr-
user"></i> <span>Profile</span></a>
                                        <a href="panels.html" class=""><i class="Inr Inr-
cog"></i> <span>Applied Jobs</span></a>
                                        <a href="panels.html" class=""><i class="Inr Inr-
cog"></i> <span>Available Jobs</span></a>
                                        <a href="notifications.html" class=""><i class="Inr Inr-
alarm"></i> <span>Notifications</span></a>
                                </nav>
                 </div>
          </div>
          <div class="main">
          </div>
          <!-- END MAIN -->
          <div class="clearfix"></div>
          <footer>
                 <div class="container-fluid">
                         © 2018 <a href="https://www.themeineed.com"</pre>
target=" blank">Theme I Need</a>. All Rights Reserved.
                 </div>
          </footer>
  </div>
  <!-- END WRAPPER -->
  <!-- Javascript -->
  <script src="assets/vendor/jquery/jquery.min.js"></script>
  <script src="assets/vendor/bootstrap/js/bootstrap.min.js"></script>
  <script src="assets/vendor/jquery-slimscroll/jquery.slimscroll.min.js"></script>
  <script src="assets/vendor/jquery.easy-pie-chart/jquery.easypiechart.min.js"></script>
```

```
<script src="assets/vendor/chartist/js/chartist.min.js"></script>
  <script src="assets/scripts/klorofil-common.js"></script>
</body>
</html>
PageLogin.html:
<!doctype html>
<html lang="en" class="fullscreen-bg">
<head>
  <title>Candidate Login</title>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1">
  <meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-
scalable=0">
  <!-- VENDOR CSS -->
  <link rel="stylesheet" href="login.css">
  k rel="stylesheet" href="assets/css/bootstrap.min.css">
  <link rel="stylesheet" href="assets/vendor/font-awesome/css/font-awesome.min.css">
  <link rel="stylesheet" href="assets/vendor/linearicons/style.css">
  <!-- MAIN CSS -->
  <link rel="stylesheet" href="assets/css/main.css">
  <!-- FOR DEMO PURPOSES ONLY. You should remove this in your project -->
  k rel="stylesheet" href="assets/css/demo.css">
  <!-- GOOGLE FONTS -->
  k href="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400,600,700"
rel="stylesheet">
  <!-- ICONS -->
  k rel="apple-touch-icon" sizes="76x76" href="assets/img/apple-icon.png">
  k rel="icon" type="image/png" sizes="96x96" href="assets/img/favicon.png">
</head>
<body>
  <!-- WRAPPER -->
   <div id="wrapper">
          <div class="vertical-align-wrap">
                  <div class="vertical-align-middle">
                         <div class="auth-box">
                                 <div class="left">
                                         <div class="content">
                                                 <div class="header">
                                                        Login to your account
                                                 </div>
                                                 <form class="form-auth-small" action="index.php">
                                                        <div class="form-group">
                                                                <label for="signin-email"
class="control-label sr-only">Email</label>
```

```
<input type="email" class="form-
control" id="signin-email" placeholder="Enter Email....">
                                                         </div>
                                                         <div class="form-group">
                                                                 <label for="signin-password"
class="control-label sr-only">Password</label>
                                                                 <input type="password"
class="form-control" id="signin-password" placeholder="Enter Password....">
                                                         </div>
                                                         <div class="form-group clearfix">
                                                                 <label class="fancy-checkbox"
element-left">
                                                                         <input type="checkbox">
                                                                         <span>Remember
me</span>
                                                                 </label>
                                                         </div>
                                                         <button type="submit" class="btn btn-
primary btn-lg btn-block">LOGIN</button>
                                                         <div class="bottom">
                                                                 <span><a href="#">Not A member?
SignUp Now!</a></span><br>
                                                                 <span class="helper-text"><i</pre>
class="fa fa-lock"></i> <a href="#">Forgot password?</a></span>
                                                 </form>
                                          </div>
                                  </div>
                                  <div class="right">
                                          <div class="overlay"></div>
                                          <div class="content text">
                                                  <h1 class="heading">Signup for free to experience
your dream job! </h1>
                                                  by Job Portal
                                          </div>
                                  </div>
                                  <div class="clearfix"></div>
                          </div>
                  </div>
          </div>
   </div>
   <!-- END WRAPPER -->
</body>
</html>
```

## **KUBERNETES:**

FlaskDeployment.yaml:

apiVersion: apps/v1 kind: Deployment

```
metadata:
name: flask-app
spec:
replicas: 3
selector:
 matchLabels:
   app: flask-app
template:
  metadata:
  labels:
    app: flask-app
  spec:
  containers:
    - name: job-portal-1
     image: jp.icr.io/ponni_ntp/job
     imagePullPolicy: Always
     ports:
```

- containerPort: 5000

protocol: TCP

## Service.yaml:

apiVersion: v1 kind: Service metadata:

name: flask-app-service

spec:

type: ClusterIP

ports:

- port: 5000 selector:

app: flask-app