

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, user-
scalable=0">

    <link 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">
<link rel="stylesheet" href="assets/css/main.css">

<link rel="stylesheet" href="assets/css/demo.css">

<link href="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400,600,700"
rel="stylesheet">

<link rel="apple-touch-icon" sizes="76x76" href="assets/img/apple-icon.png">
<link 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>
          <ul class="nav">
            <li><a href="index.html" class="active"><i class="lnr lnr-
home"></i> <span>Dashboard</span></a></li>
            <li><a href="page-profile.html" class=""><i class="lnr lnr-
user"></i> <span>Profile</span></a></li>
            <li><a href="panels.html" class=""><i class="lnr lnr-
cog"></i> <span>Applied Jobs</span></a></li>
            <li><a href="panels.html" class=""><i class="lnr lnr-
cog"></i> <span>Available Jobs</span></a></li>
            <li><a href="notifications.html" class=""><i class="lnr lnr-
alarm"></i> <span>Notifications</span></a></li>
          </ul>
        </nav>
      </div>
    </div>

    <div class="main">

    </div>
    <!-- END MAIN -->
    <div class="clearfix"></div>
    <footer>
      <div class="container-fluid">
        <p class="copyright">&copy; 2018 <a href="https://www.themeineed.com"
target="_blank">Theme I Need</a>. All Rights Reserved.</p>
      </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">
```

```
  <link 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 -->
```

```
  <link rel="stylesheet" href="assets/css/demo.css">
```

```
  <!-- GOOGLE FONTS -->
```

```
  <link href="https://fonts.googleapis.com/css?family=Source+Sans+Pro:300,400,600,700"
rel="stylesheet">
```

```
  <!-- ICONS -->
```

```
  <link rel="apple-touch-icon" sizes="76x76" href="assets/img/apple-icon.png">
```

```
  <link 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">
```

```
                <p class="lead">Login to your account</p>
```

```
              </div>
```

```
              <form class="form-auth-small" action="index.php">
```

```
                <div class="form-group">
```

```
                  <label for="signin-email"
```

```
class="control-label sr-only">Email</label>
```

```

control" id="signin-email" placeholder="Enter Email....">
<input type="email" class="form-
</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
class="fa fa-lock"></i> <a href="#">Forgot password?</a></span>
</div>
</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>
    <p>by Job Portal</p>
  </div>
</div>
<div class="clearfix"></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