



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Advanced Python Programming

LAB ASSIGNMENT 19

DOCKER EXPERIMENTATION.


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COURSE CODE: CSI 3007.

QUESTION NUMBER 1:

WORKING AND EXPERIMENTATION ON DOCKER DESKTOP.

 DockerAssessment.java - Notepad

File Edit Format View Help

```
import java.util.*;
class DockerAssessment
{
    public static void main(String[] args)
    {
        String regNo;
        String name;
        String date;
        regNo="22MIC0102";
        name ="Gokulesh";
        date =new Date().toString();
        System.out.println(regNo+"-"+name);
        System.out.println("Compiled at :"+date);
    }
}
```

```
DockerFile - Notepad
File Edit Format View Help
FROM openjdk:17
WORKDIR /app
COPY DockerAssessment.java /app/
RUN javac DockerAssessment.java
CMD ["java", "DockerAssessment"]

Ln 1, Col 1    100%    Windows (CRLF)    UTF-8
```

TERMINAL OUTPUT:

```
C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>javac DockerAssessment.java

C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>java DockerAssessment
22MIC0102-Gokulesh
```

```
C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>docker buildx build -f DockerFile ./ -t dockerassessment:22MIC0102
[+] Building 4.9s (10/10) FINISHED                                docker:desktop-linux
=> [internal] load build definition from DockerFile                0.0s
=> => transferring dockerfile: 171B                                0.0s
=> [internal] load metadata for docker.io/library/openjdk:17      2.3s
=> [auth] library/openjdk:pull token for registry-1.docker.io     0.0s
=> [internal] load .dockerignore                                   0.1s
=> => transferring context: 2B                                       0.0s
=> [1/4] FROM docker.io/library/openjdk:17@sha256:528707081fdb9562eb819128a9f85ae7fe000e2fbaeaf9f87662e7b3f38cb7 0.0s
=> [internal] load build context                                   0.1s
=> => transferring context: 337B                                       0.0s
=> CACHED [2/4] WORKDIR /app                                       0.0s
=> [3/4] COPY DockerAssessment.java /app/                          0.0s
=> [4/4] RUN javac DockerAssessment.java                          2.0s
=> exporting to image                                              0.1s
=> => exporting layers                                                0.1s
=> => writing image sha256:f902e745b9ee27fb76c52236c91b3fcff9bc6be5ab3c1999c9744f278bf91a73 0.0s
=> => naming to docker.io/library/dockerassessment:22MIC0102      0.0s

What's next:
  View a summary of image vulnerabilities and recommendations → docker scout quickview

C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>
```

DOCKER IMAGE STATUS:

```
C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
dockerassessment    22MIC0102          f902e745b9ee       37 seconds ago     471MB
dockerassessment    22MIC0072          25c45f648d1f       10 hours ago       471MB
hellow              latest             b9380dd2893d       2 days ago         7.8MB
hello-world         latest             d2c94e258dcb       16 months ago      13.3kB

C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>docker run
```

```
C:\Users\Lenovo\OneDrive\Desktop\gokuleshda>docker run dockerassessment:22MIC0102
22MIC0102-Gokulesh
```

EXPERIMENT DEMONSTRATED IN CLASS

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My Simple Docker Website</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>

  <header>
    <h1>My Awesome Site</h1>
  </header>

  <main>
    <section class="hero">
      <h2>Welcome Aboard! 🚀</h2>
      <p>This is a simple website deployed using *Docker* and *Nginx*.
```

```

        <a href="#about" class="button">Learn More</a>
    </section>

    <section id="about" class="content-box">
        <h3>About This Project</h3>
        <p>Dockerizing static content makes deployment clean and
repeatabe. No matter where you run this container, the website looks and
functions exactly the same.</p>
    </section>
</main>

<footer>
    <p>&copy; 2025 Simple Web Deployment</p>
</footer>

</body>
</html>

```

Styles.css

```

body {
    font-family: 'Arial', sans-serif;
    margin: 0;
    padding: 0;
    background-color: #f4f4f9;
    color: #333;
    line-height: 1.6;
}

/* Header Styling */
header {
    background-color: #007bff;
    color: white;
    padding: 20px 0;
    text-align: center;
    box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
}

header h1 {
    margin: 0;
    font-size: 2.5em;
}

/* Main Content Area */
main {
    max-width: 900px;
    margin: 40px auto;
    padding: 0 20px;
}

```

```
}

/* Hero Section */
.hero {
  background-color: #ffffff;
  padding: 40px;
  border-radius: 8px;
  text-align: center;
  margin-bottom: 40px;
  border-left: 5px solid #007bff;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.05);
}

.hero h2 {
  color: #007bff;
  font-size: 2em;
  margin-top: 0;
}

/* Button Styling */
.button {
  display: inline-block;
  background-color: #28a745;
  color: white;
  padding: 10px 20px;
  text-decoration: none;
  border-radius: 5px;
  margin-top: 15px;
  transition: background-color 0.3s ease;
}

.button:hover {
  background-color: #218838;
}

/* Content Box Section */
.content-box {
  background-color: #fff;
  padding: 30px;
  border-radius: 8px;
  margin-top: 20px;
  box-shadow: 0 4px 8px rgba(0, 0, 0, 0.05);
}

.content-box h3 {
  border-bottom: 2px solid #ccc;
  padding-bottom: 10px;
  color: #555;
}
```

```
}

/* Footer Styling */
footer {
  text-align: center;
  padding: 20px 0;
  background-color: #333;
  color: white;
  margin-top: 40px;
}
```

OUTPUT:

