

Name-Anant Srivastava

Reg-240958248

CSFT

Roll-68

Aim

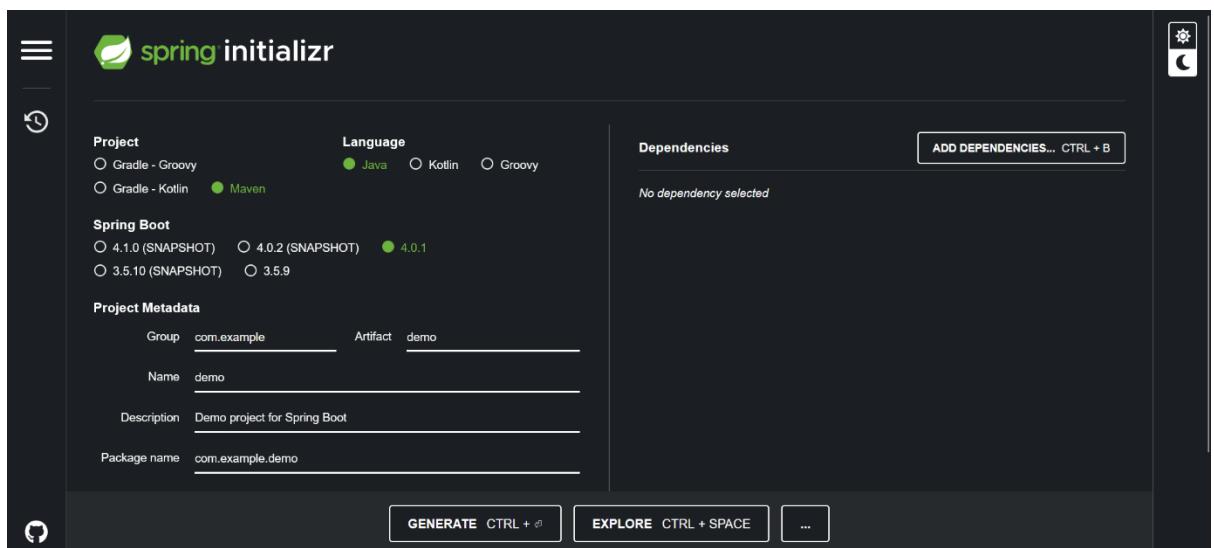
To create a Spring Boot REST API, manage the project using Maven and Git, and deploy the application on Azure Cloud.

Software Requirements

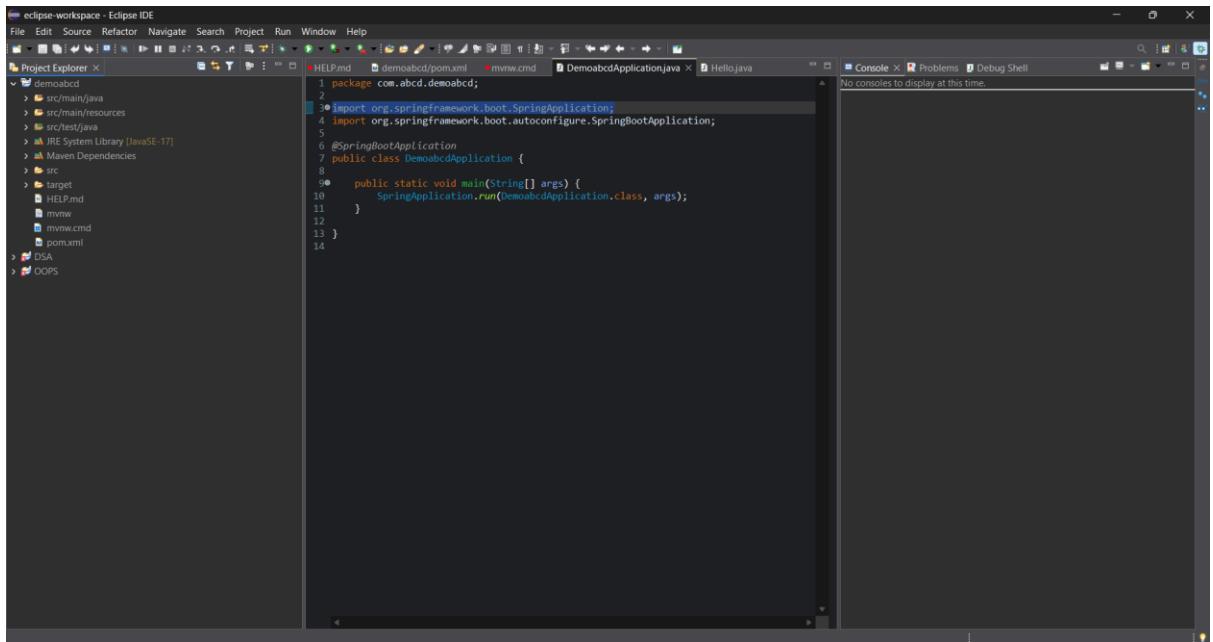
Java (JDK 17), Maven, Eclipse IDE, Git, GitHub, Azure Cloud Shell, MySQL, Postman.

Procedure

1. Create a Spring Boot project using **Spring Initializr** with Maven and Spring Web dependency.



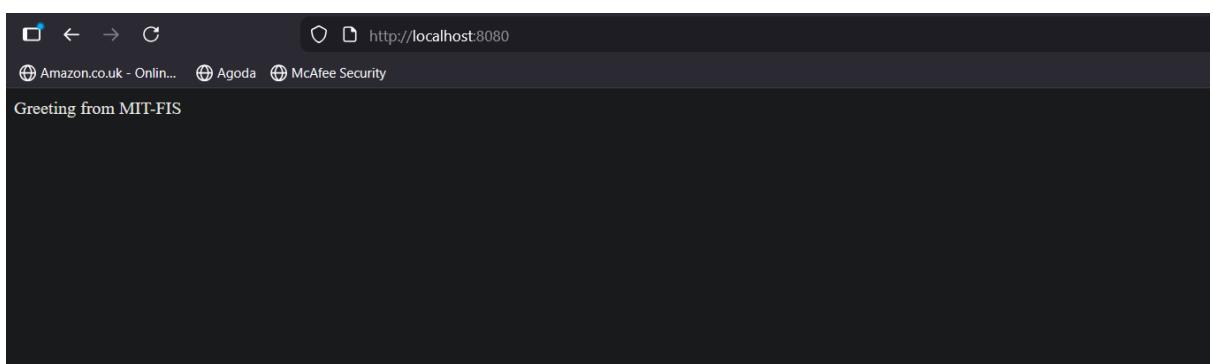
2. Import the project into **Eclipse IDE**.



3. Write a simple REST controller using `@RestController` and `@GetMapping`.

```
1 package com.abcd.demoabcd;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.boot.autoconfigure.SpringBootApplication;
5
6 @SpringBootApplication
7 public class DemoabcdApplication {
8
9     public static void main(String[] args) {
10         SpringApplication.run(DemoabcdApplication.class, args);
11     }
12
13 }
14 |
```

4. Run the application locally on port 8080.



5. Initialize Git, commit the project, and push it to GitHub.

```

PS C:\Users\hp\Downloads\demoabcd> git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
PS C:\Users\hp\Downloads\demoabcd> |

```

```

PS C:\Users\hp\Downloads\demoabcd> git log
commit dc35f3d109e30472369a47a6ce1c60a1ef79fa4 (HEAD -> main, origin/main)
Author: Anant Srivastava <anant1.mitmpl2024@learner.manipal.edu>
Date:   Fri Jan 16 09:45:15 2026 +0530

    updated for submission

commit deed21ecce7facab602c80f05569290587f5109e
Author: Anant Srivastava <anant1.mitmpl2024@learner.manipal.edu>
Date:   Fri Jan 9 09:21:26 2026 +0530

Hello

```

6. Open Azure Cloud Shell, clone the GitHub repository.

```

anant [ ~ ]$ git clone https://github.com/Anxnt111/Demoabcd.git mywebapp
Cloning into 'mywebapp'...
remote: Enumerating objects: 29, done.
remote: Counting objects: 100% (29/29), done.
remote: Compressing objects: 100% (17/17), done.
remote: Total 29 (delta 2), reused 29 (delta 2), pack-reused 0 (from 0)
Receiving objects: 100% (29/29), 10.40 KiB | 5.20 MiB/s, done.
Resolving deltas: 100% (2/2), done.
anant [ ~ ]$ cd mywebapp
anant [ ~/mywebapp ]$ mvn com.microsoft.azure:azure-webapp-maven-plugin:2.13.0:config
[INFO] Scanning for projects...
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-starter-parent/3.2.5/spring-boot-starter-parent-3.2.5.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-starter-parent/3.2.5/spring-boot-starter-parent-3.2.5.pom (13 kB at 25 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-dependencies/3.2.5/spring-boot-dependencies-3.2.5.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-dependencies/3.2.5/spring-boot-dependencies-3.2.5.pom (111 kB at 1.5 MB/s)
)
Downloading from central: https://repo.maven.apache.org/maven2/org/assertj/assertj-bom/3.24.2/assertj-bom-3.24.2.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/assertj/assertj-bom/3.24.2/assertj-bom-3.24.2.pom (3.7 kB at 28 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/io/zipkin/brave/brave-bom/5.16.0/brave-bom-5.16.0.pom
Downloaded from central: https://repo.maven.apache.org/maven2/io/zipkin/brave/brave-bom/5.16.0/brave-bom-5.16.0.pom (12 kB at 358 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/io/zipkin/reporter/zipkin-reporter-bom/2.16.3/zipkin-reporter-bom-2.16.3.pom
Downloaded from central: https://repo.maven.apache.org/maven2/io/zipkin/reporter/zipkin-reporter-bom/2.16.3/zipkin-reporter-bom-2.16.3.pom (6.9 kB at 140 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/com/databricks/java-driver-bom/4.17.0/java-driver-bom-4.17.0.pom

Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/spring-framework-bom/6.1.6/spring-framework-bom-6.1.6.pom (5.8 kB at 357 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/integration/spring-integration-bom/6.2.4/spring-integration-bom-6.2.4.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/integration/spring-integration-bom/6.2.4/spring-integration-bom-6.2.4.pom (10 kB at 308 kB/s)
)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/pulsar/spring-pulsar-bom/1.0.5/spring-pulsar-bom-1.0.5.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/pulsar/spring-pulsar-bom-1.0.5.pom (2.7 kB at 55 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/restdocs/spring-restdocs-bom/3.0.1/spring-restdocs-bom-3.0.1.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/restdocs/spring-restdocs-bom/3.0.1/spring-restdocs-bom-3.0.1.pom (2.6 kB at 74 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/security/spring-security-bom/6.2.4/spring-security-bom-6.2.4.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/security/spring-security-bom/6.2.4/spring-security-bom-6.2.4.pom (5.3 kB at 167 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/session/spring-session-bom/3.2.2/spring-session-bom-3.2.2.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/session/spring-session-bom/3.2.2/spring-session-bom-3.2.2.pom (2.9 kB at 93 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/ws/spring-ws-bom/4.0.19/spring-ws-bom-4.0.19.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/ws/spring-ws-bom/4.0.19/spring-ws-bom-4.0.19.pom (3.5 kB at 103 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/testcontainers/testcontainers-bom/1.19.7/testcontainers-bom-1.19.7.pom
Downloaded from central: https://repo.maven.apache.org/maven2/org/testcontainers/testcontainers-bom/1.19.7/testcontainers-bom-1.19.7.pom (10 kB at 347 kB/s)

[INFO]
[INFO] -----< com.abcd:demoabcd >-----
[INFO] Building demoabcd 0.0.1-SNAPSHOT
[INFO]   from pom.xml
[INFO]   [ jar ]-----
[INFO]
[INFO] --- azure-webapp:2.13.0:config (default-cli) @ demoabcd ---
Please choose which part to config [Application]:
* 1: Application
  2: Runtime
  3: DeploymentSlot
Enter your choice: []

```

7. Configure Azure Web App using Maven plugin.

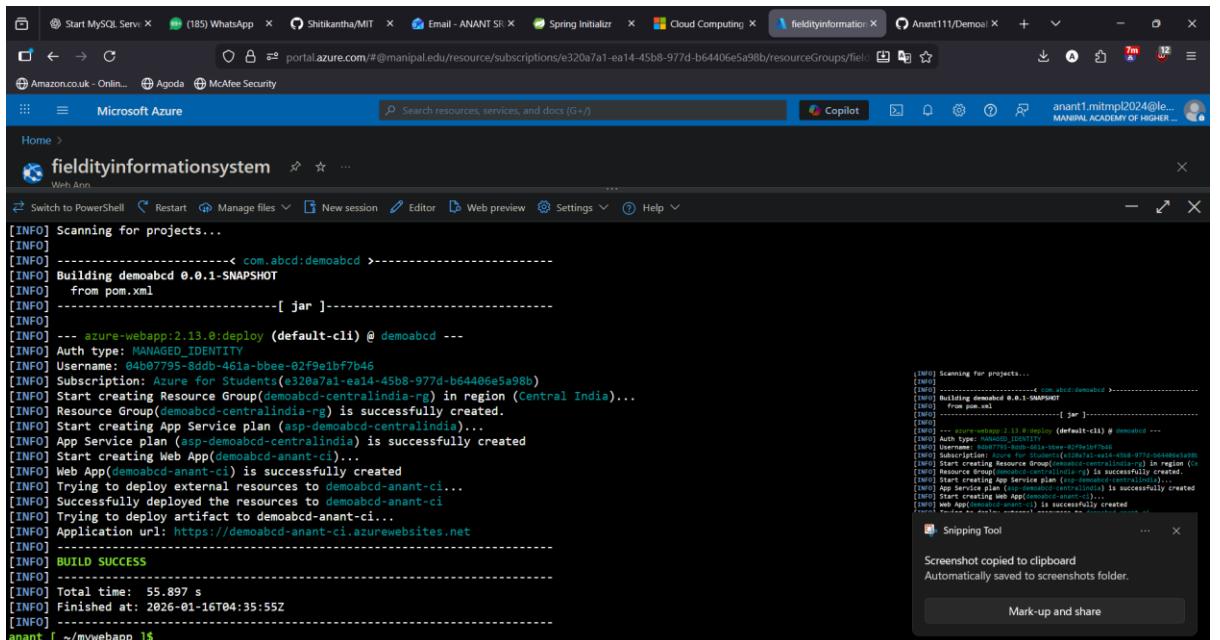
```

Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-shade-plugin/3.5.0/maven-shade-plugin-3.5.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-loader-tools/3.2.5/spring-boot-loader-tools-3.2.5.jar (435 kB at 2.9 MB/s)
)
Downloading from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm/9.5/asm-9.5.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/httpcomponents/core5/httpcore5/5.2.4/httpcore5-5.2.4.jar (855 kB at 5.0 MB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm-commons/9.5/asm-commons-9.5.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm/9.5/asm-9.5.jar (122 kB at 655 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm-tree/9.5/asm-tree-9.5.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-shade-plugin/3.5.0/maven-shade-plugin-3.5.0.jar (147 kB at 810 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-dependency-tree/3.2.1/maven-dependency-tree-3.2.1.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/1.5.8/plexus-utils-1.5.8.jar (268 kB at 1.5 MB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.13.0/commons-io-2.13.0.jar
Downloaded from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm-commons/9.5/asm-commons-9.5.jar (72 kB at 361 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/ow2/asm/asm-tree/9.5/asm-tree-9.5.jar (52 kB at 245 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-dependency-tree/3.2.1/maven-dependency-tree-3.2.1.jar (43 kB at 195 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.13.0/commons-io-2.13.0.jar (484 kB at 2.2 MB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/vafer/jdependency/2.8.0/jdependency-2.8.0.jar (233 kB at 887 kB/s)
[INFO] Replacing main artifact /home/anant/mywebapp/target/demoabcd-0.0.1-SNAPSHOT.jar with repackaged archive, adding nested dependencies in BOOT-INF/.
[INFO] The original artifact has been renamed to /home/anant/mywebapp/target/demoabcd-0.0.1-SNAPSHOT.jar.original
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 23.177 s
[INFO] Finished at: 2026-01-16T04:34:15Z
[INFO] -----
anant [ ~/mywebapp ]$
```

```

[INFO] Scanning for projects...
[INFO]
[INFO] -----< com.abcd:demoabcd >-----
[INFO] Building demoabcd 0.0.1-SNAPSHOT
[INFO]   from pom.xml
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- azure-webapp:2.13.0:deploy (default-cli) @ demoabcd ---
[INFO] Auth type: MANAGED_IDENTITY
[INFO] Username: 04b07795-8ddb-461a-bbee-02f9e1bf7b46
[INFO] Subscription: Azure for Students(e320a7a1-ea14-45b8-977d-b64406e5a98b)
[INFO] Start creating Resource Group(demoabcd-centralindia-rg) in region (Central India)...
[INFO] Resource Group(demoabcd-centralindia-rg) is successfully created.
[INFO] Start creating App Service plan (asp-demoabcd-centralindia)...
[INFO] App Service plan (asp-demoabcd-centralindia) is successfully created
[INFO] Start creating Web App(demoabcd-anant-ci)...
[INFO] Web App(demoabcd-anant-ci) is successfully created
[INFO] Trying to deploy external resources to demoabcd-anant-ci...
[INFO] Successfully deployed the resources to demoabcd-anant-ci
[INFO] Trying to deploy artifact to demoabcd-anant-ci...
[INFO] Application url: https://demoabcd-anant-ci.azurewebsites.net
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 55.897 s
[INFO] Finished at: 2026-01-16T04:35:55Z
[INFO] -----
anant [ ~/mywebapp ]$
```

8. Build and deploy the application to Azure.



The screenshot shows the Microsoft Azure portal interface for the 'fieldityinformationsystem' web application. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Microsoft Defender for Cloud, Events (preview), Log stream, Resource visualizer, Deployment, Settings, Performance, App Service plan, Development Tools, API, and Monitoring. The main content area is titled 'fieldityinformationsystem' and shows the following details:

- Essentials**
 - Resource group (move) : fieldityinformationsystem_group
 - Status : Running
 - Location (move) : Central India
 - Subscription (move) : Azure for Students
 - Subscription ID : e320a7a1-ea14-45b8-977d-b64406e5a98b
 - Tags (edit) : Add tags
- Properties** tab selected.
- Web app** section:
 - Name : fieldityinformationsystem
 - Publishing model : Code
 - Runtime Stack : Java 17 SE
 - Runtime status : Healthy
- Deployment Center** section:
 - Deployment logs
 - Last deployment
 - Deployment provider
 - None
- Domains** section:
 - Default domain : fieldityinformationsystem-bvarh8bzbcbsd9e3.centralindia-01.azurewebsites.net
- Application Insights** section:
 - Name : fieldityinformationsystem
 - Region : Central India

At the bottom of the main content, it says "Add or remove favorites by pressing Ctrl+Shift+F+F+F". The browser's address bar shows the URL as `fieldityinformationsystem-bvarh8bzbcbsd9e3.centralindia-01.azurewebsites.net`. The system tray at the bottom right shows the date as 16-01-2026, the time as 10:08 AM, and various system icons.