# EC2 Instance Setup for Spring Boot Deployment (Full Guide)

## PHASE 1 — Create EC2 Instance (AWS Console)

1. Open AWS Console → Search EC2 → Launch Instance
2. Name your instance (example: mis-backend-server)
3. Select AMI: Ubuntu Server 22.04 LTS
4. Instance type: t2.micro (Free Tier)
5. Create Key Pair: mis-backend.pem
6. Configure Network: Allow SSH (22) + Custom TCP (8080)
7. Storage: Default 8 GB
8. Click Launch Instance

## PHASE 2 — Connect to EC2

9. Copy Public IPv4 address

```
10. chmod 400 mis-backend.pem
11. ssh -i mis-backend.pem ubuntu@EC2_PUBLIC_IP
```

## PHASE 3 — Setup Environment

```
12. sudo apt update
13. sudo apt install openjdk-17-jdk git maven -y
```

## PHASE 4 — Deploy Spring Boot App

```
14. git clone https://github.com/YOUR_USERNAME/YOUR_REPO.git
15. cd mis
16. mvn clean package -DskipTests
```

## PHASE 5 — Connect to AWS RDS MySQL

```
17. export DB_URL='jdbc:mysql://RDS-ENDPOINT:3306/misdb'
18. export DB_USER='admin'
19. export DB_PASS='YOUR_PASSWORD'
20. export JWT_SECRET='YOUR_SECRET'
```

## PHASE 6 — Run App

```
21. java -jar target/mis-0.0.1-SNAPSHOT.jar --spring.profiles.active=prod
```

## PHASE 7 — Run Forever with systemd

```
22. sudo nano /etc/systemd/system/gepl.service
23. sudo systemctl daemon-reload
24. sudo systemctl reset-failed gepl
25. sudo systemctl start gepl
26. sudo systemctl enable gepl
```

Useful Commands:

```
sudo systemctl status gepl
sudo journalctl -u gepl -f
```

Swagger URL:

http://EC2_PUBLIC_IP:8080/swagger-ui/index.html

Deployment Complete ■