

Creating Microservices for account and loan

AccountController.java:

```
package com.cognizant.account.controller;

import org.springframework.web.bind.annotation.*;

@RestController
@RequestMapping("/accounts")

public class AccountController {

    @GetMapping("/{number}")

    public Account getAccountDetails(@PathVariable String number) {

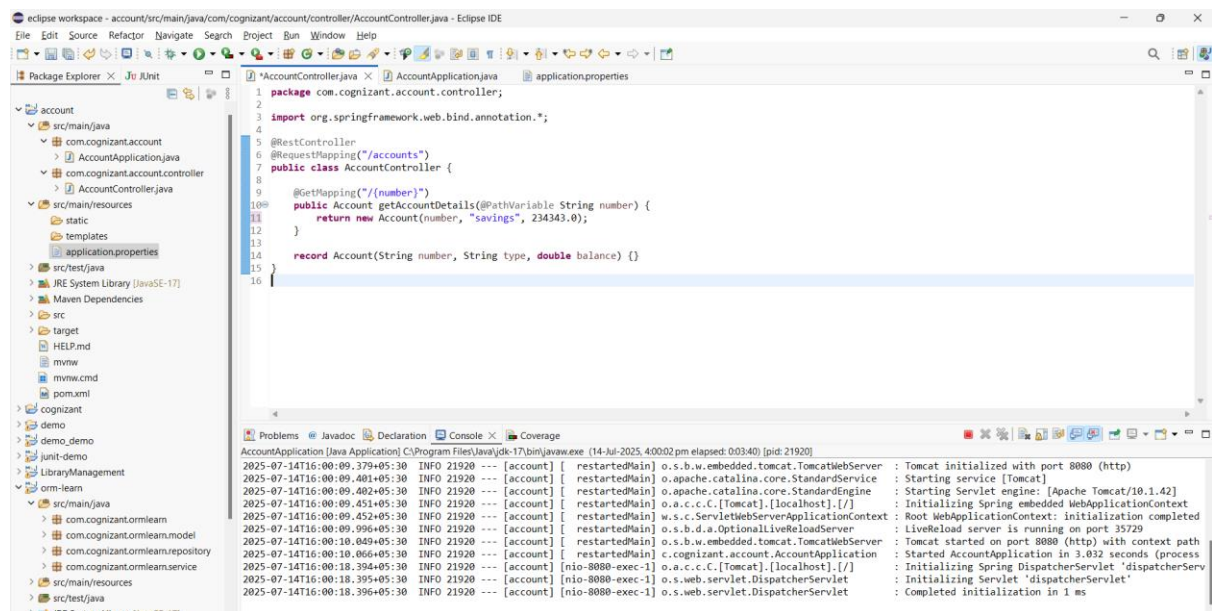
        return new Account(number, "savings", 234343.0);

    }

    record Account(String number, String type, double balance) {}

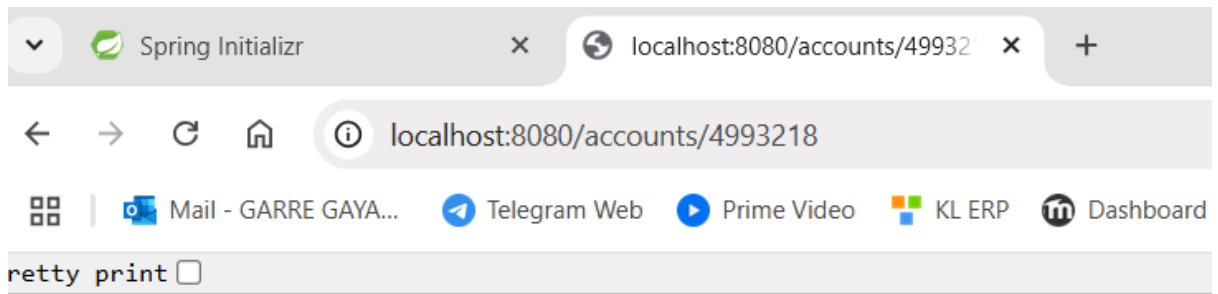
}
```

OUTPUTS:



The screenshot displays the Eclipse IDE environment. The Package Explorer on the left shows the project structure, including the 'account' package and its sub-packages. The main editor window shows the 'AccountController.java' file, which contains the code for the 'AccountController' class. The console window at the bottom shows the output of the application, including the startup of the Tomcat server and the initialization of the Spring application context.

```
AccountApplication [Java Application] C:\Program Files\Java\jdk-17\bin\java.exe (14-Jul-2025, 4:00:02 pm elapsed: 0:03:40) [pid: 21920]
2025-07-14T16:00:09.379+05:30 INFO 21920 --- [account] [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8080 (http)
2025-07-14T16:00:09.401+05:30 INFO 21920 --- [account] [ restartedMain] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2025-07-14T16:00:09.402+05:30 INFO 21920 --- [account] [ restartedMain] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.42]
2025-07-14T16:00:09.451+05:30 INFO 21920 --- [account] [ restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2025-07-14T16:00:09.452+05:30 INFO 21920 --- [account] [ restartedMain] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed
2025-07-14T16:00:09.996+05:30 INFO 21920 --- [account] [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729
2025-07-14T16:00:10.049+05:30 INFO 21920 --- [account] [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8080 (http) with context path
2025-07-14T16:00:10.066+05:30 INFO 21920 --- [account] [ restartedMain] c.cognizant.account.AccountApplication : Started AccountApplication in 3.032 seconds (process
2025-07-14T16:00:18.394+05:30 INFO 21920 --- [account] [ nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServ
2025-07-14T16:00:18.395+05:30 INFO 21920 --- [account] [ nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2025-07-14T16:00:18.396+05:30 INFO 21920 --- [account] [ nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms
```



```
"number":"4993218","type":"savings","balance":234343.0}
```

LoanController:

```
package com.cognizant.loan.controller;

import org.springframework.web.bind.annotation.*;

@RestController
@RequestMapping("/loans")
public class LoanController {

    @GetMapping("/{number}")
    public Loan getLoanDetails(@PathVariable String number) {

        return new Loan(number, "car", 400000, 3258, 18);
    }

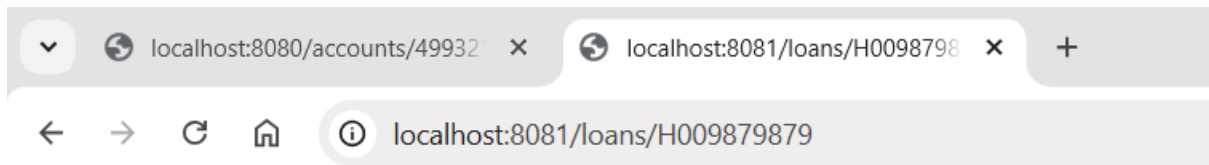
    record Loan(String number, String type, double loan, double emi, int tenure) {}
}
```

The screenshot shows the Eclipse IDE with the `LoanController.java` file open. The code defines a `LoanController` class with a `getLoanDetails` method that returns a `Loan` object. The console output shows the application running on port 8081, with logs indicating the successful initialization of the Spring application context and the `LoanApplication` class.

```
1 package com.cognizant.loan.controller;
2
3 import org.springframework.web.bind.annotation.*;
4
5 @RestController
6 @RequestMapping("/loans")
7 public class LoanController {
8
9     @GetMapping("/{number}")
10    public Loan getLoanDetails(@PathVariable String number) {
11        return new Loan(number, "car", 400000, 3258, 18);
12    }
13
14    record Loan(String number, String type, double loan, double emi, int tenure) {}
15
16 }
```

Console Output:

```
LoanApplication [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (14-Jul-2025, 4:10:44 pm elapsed: 0:01:28) [pid: 1828]
2025-07-14T16:10:49.390+05:30 INFO 1828 --- [loan] [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8081 (http)
2025-07-14T16:10:49.409+05:30 INFO 1828 --- [loan] [ restartedMain] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2025-07-14T16:10:49.409+05:30 INFO 1828 --- [loan] [ restartedMain] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.42]
2025-07-14T16:10:49.457+05:30 INFO 1828 --- [loan] [ restartedMain] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2025-07-14T16:10:49.459+05:30 INFO 1828 --- [loan] [ restartedMain] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 1
2025-07-14T16:10:49.986+05:30 WARN 1828 --- [loan] [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : Unable to start LiveReload server
2025-07-14T16:10:50.029+05:30 INFO 1828 --- [loan] [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8081 (http) with context path '/'
2025-07-14T16:10:50.046+05:30 INFO 1828 --- [loan] [ restartedMain] com.cognizant.loan.LoanApplication : Started LoanApplication in 2.704 seconds (process running)
2025-07-14T16:10:57.096+05:30 INFO 1828 --- [loan] [nio-8081-exec-2] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2025-07-14T16:10:57.097+05:30 INFO 1828 --- [loan] [nio-8081-exec-2] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2025-07-14T16:10:57.099+05:30 INFO 1828 --- [loan] [nio-8081-exec-2] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms
```



Pretty print ☒

```
{
  "number": "H009879879",
  "type": "car",
  "loan": 400000,
  "emi": 3258,
  "tenure": 18
}
```