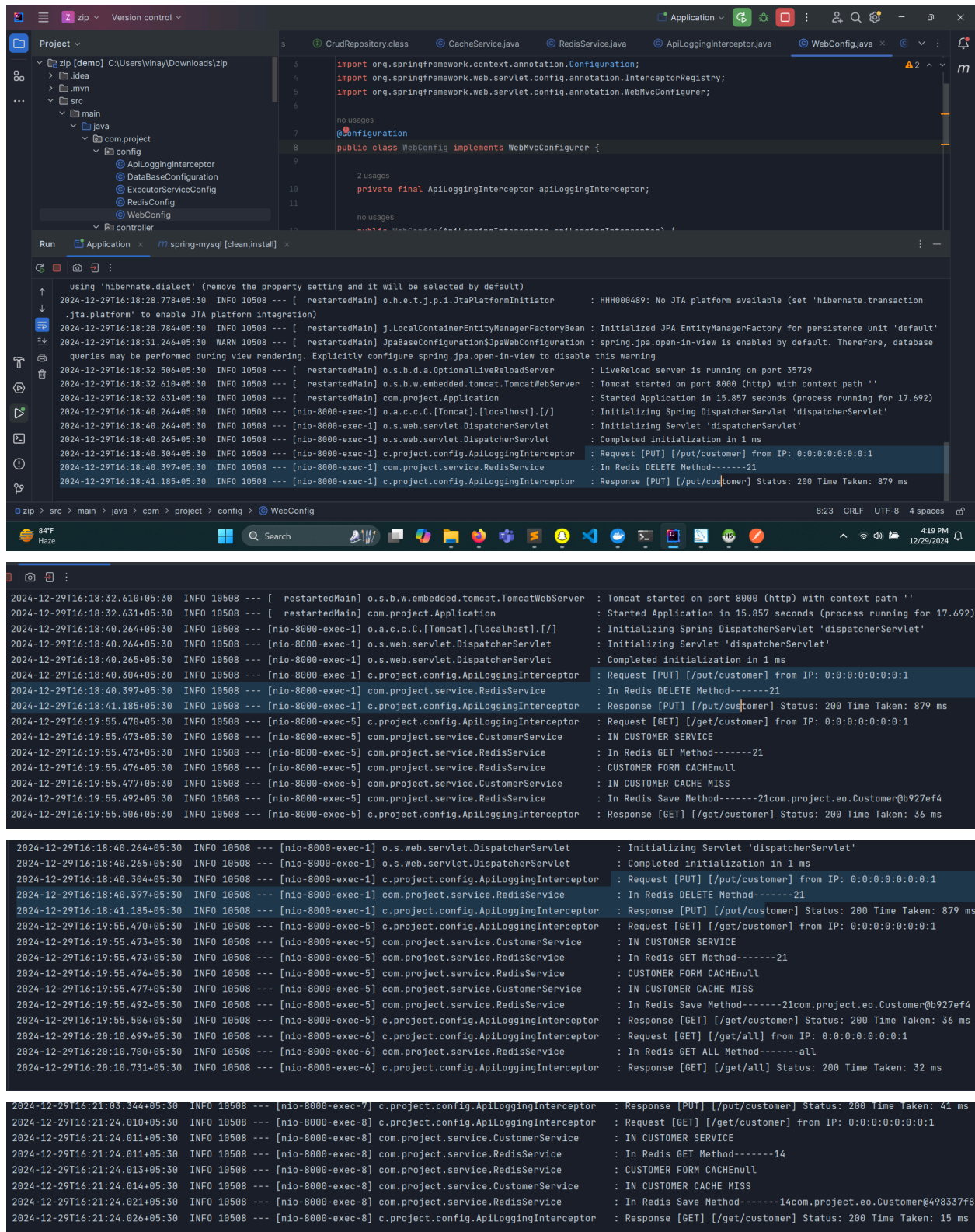


SEQUENTIAL:



The screenshot displays an IDE with a project named 'zip' and a file 'WebConfig.java' open. The code defines a 'WebConfig' class implementing 'WebMvcConfigurer'. The 'Run' console shows a sequential log of application events and HTTP requests. The log includes messages for JPA initialization, Tomcat startup, and various REST API calls (PUT, GET, DELETE) to endpoints like '/put/customer', '/get/customer', and '/get/all'. The log is organized into three distinct blocks, each containing a series of timestamped events and their corresponding log messages.

```
2024-12-29T16:18:28.778+05:30 INFO 10508 --- [ restartedMain] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000489: No JTA platform available (set 'hibernate.transaction
2024-12-29T16:18:28.784+05:30 INFO 10508 --- [ restartedMain] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'
2024-12-29T16:18:31.246+05:30 WARN 10508 --- [ restartedMain] JpaBaseConfiguration$JpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database
queries may be performed during view rendering. Explicitly configure spring.jpa.open-in-view to disable this warning
2024-12-29T16:18:32.610+05:30 INFO 10508 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729
2024-12-29T16:18:32.610+05:30 INFO 10508 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8080 (http) with context path ''
2024-12-29T16:18:32.631+05:30 INFO 10508 --- [ restartedMain] com.project.Application : Started Application in 15.857 seconds (process running for 17.692)
2024-12-29T16:18:40.264+05:30 INFO 10508 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2024-12-29T16:18:40.264+05:30 INFO 10508 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2024-12-29T16:18:40.265+05:30 INFO 10508 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms
2024-12-29T16:18:40.304+05:30 INFO 10508 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:18:41.185+05:30 INFO 10508 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : In Redis DELETE Method-----21
2024-12-29T16:18:41.185+05:30 INFO 10508 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Response [PUT] [/put/customer] Status: 200 Time Taken: 879 ms
2024-12-29T16:19:55.470+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:19:55.473+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : IN CUSTOMER SERVICE
2024-12-29T16:19:55.473+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : In Redis GET Method-----21
2024-12-29T16:19:55.476+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : CUSTOMER FORM CACHENull
2024-12-29T16:19:55.477+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : IN CUSTOMER CACHE MISS
2024-12-29T16:19:55.492+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : In Redis Save Method-----21com.project.eo.Customer@b927ef4
2024-12-29T16:19:55.506+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Response [GET] [/get/customer] Status: 200 Time Taken: 36 ms
2024-12-29T16:18:40.264+05:30 INFO 10508 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2024-12-29T16:18:40.265+05:30 INFO 10508 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms
2024-12-29T16:18:40.304+05:30 INFO 10508 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:18:40.397+05:30 INFO 10508 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : In Redis DELETE Method-----21
2024-12-29T16:18:41.185+05:30 INFO 10508 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Response [PUT] [/put/customer] Status: 200 Time Taken: 879 ms
2024-12-29T16:19:55.470+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:19:55.473+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : IN CUSTOMER SERVICE
2024-12-29T16:19:55.473+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : In Redis GET Method-----21
2024-12-29T16:19:55.476+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : CUSTOMER FORM CACHENull
2024-12-29T16:19:55.477+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : IN CUSTOMER CACHE MISS
2024-12-29T16:19:55.492+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : In Redis Save Method-----21com.project.eo.Customer@b927ef4
2024-12-29T16:19:55.506+05:30 INFO 10508 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Response [GET] [/get/customer] Status: 200 Time Taken: 36 ms
2024-12-29T16:20:10.699+05:30 INFO 10508 --- [nio-8080-exec-6] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/all] from IP: 0:0:0:0:0:0:1
2024-12-29T16:20:10.700+05:30 INFO 10508 --- [nio-8080-exec-6] c.project.config.ApiLoggingInterceptor : In Redis GET ALL Method-----all
2024-12-29T16:20:10.731+05:30 INFO 10508 --- [nio-8080-exec-6] c.project.config.ApiLoggingInterceptor : Response [GET] [/get/all] Status: 200 Time Taken: 32 ms
2024-12-29T16:21:03.344+05:30 INFO 10508 --- [nio-8080-exec-7] c.project.config.ApiLoggingInterceptor : Response [PUT] [/put/customer] Status: 200 Time Taken: 41 ms
2024-12-29T16:21:24.010+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:21:24.011+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : IN CUSTOMER SERVICE
2024-12-29T16:21:24.011+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : In Redis GET Method-----14
2024-12-29T16:21:24.013+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : CUSTOMER FORM CACHENull
2024-12-29T16:21:24.014+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : IN CUSTOMER CACHE MISS
2024-12-29T16:21:24.021+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : In Redis Save Method-----14com.project.eo.Customer@498337f8
2024-12-29T16:21:24.026+05:30 INFO 10508 --- [nio-8080-exec-8] c.project.config.ApiLoggingInterceptor : Response [GET] [/get/customer] Status: 200 Time Taken: 15 ms
```

PARALLEL:

PUT:

```
Project
├── com.project
│   ├── config
│   │   ├── ApiLoggingInterceptor
│   │   ├── DataBaseConfiguration
│   │   ├── ExecutorServiceConfig
│   │   ├── RedisConfig
│   │   └── WebConfig
│   ├── controller
│   │   ├── CustomerController
│   │   └── eo
│   ├── Customer
│   ├── repository
│   │   ├── CustomerRepository
│   │   └── RedisController.java
│   └── service
│       └── CustomerService
└── ...

CustomerRepository.java
7  import java.util.List;
8  import java.util.concurrent.CompletableFuture;
9
10 public interface CustomerRepository extends JpaRepository<Customer, Long> {
11
12     @Async
13     CompletableFuture<List<Customer>> findByName(String name);
14
15     @Async
16     CompletableFuture<Customer> findById(Long id);
17 }
```

```
Run
Application x spring-mysql [clean,install] x
2024-12-29T16:42:06.774+05:30 INFO 15112 --- [ restartedMain] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'
2024-12-29T16:42:09.091+05:30 WARN 15112 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performed during view rendering. Explicitly configure spring.jpa.open-in-view to disable this warning
2024-12-29T16:42:10.428+05:30 INFO 15112 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729
2024-12-29T16:42:10.454+05:30 INFO 15112 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8080 (http) with context path ''
2024-12-29T16:42:10.454+05:30 INFO 15112 --- [ restartedMain] com.project.Application : Started Application in 15.883 seconds (process running for 17.434)
2024-12-29T16:42:37.856+05:30 INFO 15112 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
2024-12-29T16:42:37.856+05:30 INFO 15112 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
2024-12-29T16:42:37.861+05:30 INFO 15112 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 2 ms
2024-12-29T16:42:37.910+05:30 INFO 15112 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:42:38.035+05:30 INFO 15112 --- [AsyncExecutor-1] com.project.service.RedisService : In Redis DELETE Method-----23
2024-12-29T16:42:38.316+05:30 INFO 15112 --- [nio-8080-exec-3] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:42:38.380+05:30 INFO 15112 --- [nio-8080-exec-3] c.project.config.ApiLoggingInterceptor : Response [PUT] [/put/customer] Status: 200 Time Taken: 63 ms
```

GET:

```
Project
├── com.project
│   ├── config
│   │   ├── ApiLoggingInterceptor
│   │   ├── DataBaseConfiguration
│   │   ├── ExecutorServiceConfig
│   │   ├── RedisConfig
│   │   └── WebConfig
│   ├── controller
│   │   ├── CustomerController
│   │   └── eo
│   ├── Customer
│   ├── repository
│   │   ├── CustomerRepository
│   │   └── RedisController.java
│   └── service
│       └── CustomerService
└── ...

CustomerRepository.java
7  import java.util.List;
8  import java.util.concurrent.CompletableFuture;
9
10 public interface CustomerRepository extends JpaRepository<Customer, Long> {
11
12     @Async
13     CompletableFuture<List<Customer>> findByName(String name);
14
15     @Async
16     CompletableFuture<Customer> findById(Long id);
17 }
```

```
Run
Application x spring-mysql [clean,install] x
2024-12-29T16:42:37.861+05:30 INFO 15112 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 2 ms
2024-12-29T16:42:37.910+05:30 INFO 15112 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:42:38.035+05:30 INFO 15112 --- [AsyncExecutor-1] com.project.service.RedisService : In Redis DELETE Method-----23
2024-12-29T16:42:38.316+05:30 INFO 15112 --- [nio-8080-exec-3] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:42:38.380+05:30 INFO 15112 --- [nio-8080-exec-3] c.project.config.ApiLoggingInterceptor : Response [PUT] [/put/customer] Status: 200 Time Taken: 63 ms
2024-12-29T16:43:16.297+05:30 INFO 15112 --- [nio-8080-exec-4] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:43:16.298+05:30 INFO 15112 --- [nio-8080-exec-4] com.project.service.CustomerService : IN CUSTOMER SERVICE
2024-12-29T16:43:16.299+05:30 INFO 15112 --- [AsyncExecutor-2] com.project.service.RedisService : In Redis GET Method-----17
2024-12-29T16:43:16.303+05:30 INFO 15112 --- [AsyncExecutor-2] com.project.service.RedisService : CUSTOMER FROM CACHE: null
2024-12-29T16:43:16.303+05:30 INFO 15112 --- [AsyncExecutor-2] com.project.service.CustomerService : IN CUSTOMER CACHE MISS
2024-12-29T16:43:16.325+05:30 INFO 15112 --- [AsyncExecutor-4] com.project.service.RedisService : In Redis Save Method-----17com.project.eo.Customer@1002e922
2024-12-29T16:43:16.325+05:30 INFO 15112 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:43:16.327+05:30 INFO 15112 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Response [GET] [/get/customer] Status: 200 Time Taken: 1 ms
```

GETALL:

The screenshot displays an IDE with the following components:

- Project Explorer:** Shows a project structure with packages like `com.project.config`, `com.project.controller`, `com.project.service`, and `com.project.repository`. The `CustomerRepository` interface is selected.
- Code Editor:** Displays the `CustomerRepository` interface with the following code:

```
7 import java.util.List;
8 import java.util.concurrent.CompletableFuture;
9
10 public interface CustomerRepository extends JpaRepository<Customer, Long> {
11
12     no usages
13     @Async
14     CompletableFuture<List<Customer>> findByName(String name);
15     1 usage
16     @Async
17     CompletableFuture<Customer> findById(Long id);
18 }
```
- Run Console:** Shows the application log for `spring-mysql [clean,install]`. The log includes the following entries:

```
2024-12-29T16:42:37.861+05:30 INFO 15112 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed initialization in 2 ms
2024-12-29T16:42:37.910+05:30 INFO 15112 --- [nio-8080-exec-1] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:42:38.035+05:30 INFO 15112 --- [AsyncExecutor-1] com.project.service.RedisService : In Redis DELETE Method-----23
2024-12-29T16:42:38.316+05:30 INFO 15112 --- [nio-8080-exec-3] c.project.config.ApiLoggingInterceptor : Request [PUT] [/put/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:42:38.380+05:30 INFO 15112 --- [nio-8080-exec-3] c.project.config.ApiLoggingInterceptor : Response [PUT] [/put/customer] Status: 200 Time Taken: 63 ms
2024-12-29T16:43:16.297+05:30 INFO 15112 --- [nio-8080-exec-4] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:43:16.298+05:30 INFO 15112 --- [nio-8080-exec-4] com.project.service.CustomerService : IN CUSTOMER SERVICE
2024-12-29T16:43:16.299+05:30 INFO 15112 --- [AsyncExecutor-2] com.project.service.RedisService : In Redis GET Method-----17
2024-12-29T16:43:16.303+05:30 INFO 15112 --- [AsyncExecutor-2] com.project.service.RedisService : CUSTOMER FROM CACHE: null
2024-12-29T16:43:16.303+05:30 INFO 15112 --- [AsyncExecutor-2] com.project.service.CustomerService : IN CUSTOMER CACHE MISS
2024-12-29T16:43:16.325+05:30 INFO 15112 --- [AsyncExecutor-4] com.project.service.RedisService : In Redis Save Method-----17com.project.eo.Customer@1002e922
2024-12-29T16:43:16.325+05:30 INFO 15112 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Request [GET] [/get/customer] from IP: 0:0:0:0:0:0:1
2024-12-29T16:43:16.327+05:30 INFO 15112 --- [nio-8080-exec-5] c.project.config.ApiLoggingInterceptor : Response [GET] [/get/customer] Status: 200 Time Taken: 1 ms
```
- Bottom Bar:** Shows the file path `zip > src > main > java > com > project > repository > CustomerRepository > findById`, the time `14:11`, the encoding `CRLF`, the character set `UTF-8`, and the number of spaces `4 spaces`.