Customer Management

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1 Hierarchical Index 1

1.1 Class Hierarchy . . . 1

2 Class Index 3

2.1 Class List . . . 3

3 Class Documentation 5

3.1 org.example.customer_management.rest.BaseController Class Reference . . . 5

3.1.1 Detailed Description . . . 5

3.2 org.example.customer_management.entity.Customer Class Reference . . . 6

3.3 org.example.customer_management.controller.CustomerController Class Reference . . . 6

3.4 org.example.customer_management.dto.CustomerDto Class Reference . . . 7

3.5 org.example.customer_management.CustomerManagementApplication Class Reference . . . 8

3.6 org.example.customer_management.repository.CustomerRepository Interface Reference . . . 8

3.7 org.example.customer_management.request.CustomerRequest Class Reference . . . 9

3.8 org.example.customer_management.response.CustomerResponse Class Reference . . . 10

3.9 org.example.customer_management.service.CustomerService Interface Reference . . . 10

3.10 org.example.customer_management.service.impl.CustomerServiceImpl Class Reference . . . 11

3.10.1 Member Function Documentation . . . 12

3.10.1.1 createCustomer() . . . 12

3.10.1.2 deleteCustomer() . . . 12

3.10.1.3 getCustomerByEmail() . . . 13

3.10.1.4 getCustomerById() . . . 13

3.10.1.5 getCustomerByName() . . . 13

3.10.1.6 updateCustomer() . . . 13

3.11 org.example.customer_management.enums.CustomerTier Enum Reference . . . 13

3.12 org.example.customer_management.rest.DataResponse< T > Class Template Reference . . . 14

3.12.1 Detailed Description . . . 14

3.13 org.example.customer_management.mapper.Mapper Class Reference . . . 14

3.14 org.example.customer_management.enums.MessageCodes Enum Reference . . . 14

3.15 org.example.customer_management.rest.MetaResponse Class Reference . . . 15

3.15.1 Detailed Description . . . 15

3.16 org.example.customer_management.rest.PageResponse< T > Class Template Reference . . . 15

3.16.1 Detailed Description . . . 15

3.17 org.example.customer_management.rest.Response< T > Class Template Reference . . . 16

3.17.1 Detailed Description . . . 16

3.18 org.example.customer_management.rest.ResponseBuilder Class Reference . . . 16

3.18.1 Detailed Description . . . 16

3.19 org.example.customer_management.config.SwaggerConfig Class Reference . . . 17

3.20 org.example.customer_management.config.WebConfig Class Reference . . . 17

Index 19

Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

org.example.customer_management.rest.BaseController 5
  org.example.customer_management.controller.CustomerController 6
org.example.customer_management.entity.Customer 6
org.example.customer_management.dto.CustomerDto 7
org.example.customer_management.CustomerManagementApplication 8
org.example.customer_management.request.CustomerRequest 9
org.example.customer_management.response.CustomerResponse 10
org.example.customer_management.service.CustomerService 10
  org.example.customer_management.service.impl.CustomerServiceImpl 11
org.example.customer_management.enums.CustomerTier 13
org.example.customer_management.rest.DataResponse< T > 14
JpaRepository
  org.example.customer_management.repository.CustomerRepository 8
org.example.customer_management.mapper.Mapper 14
org.example.customer_management.enums.MessageCodes 14
org.example.customer_management.rest.MetaResponse 15
org.example.customer_management.rest.PageResponse< T > 15
org.example.customer_management.rest.Response< T > 16
org.example.customer_management.rest.ResponseBuilder 16
org.example.customer_management.config.SwaggerConfig 17
WebMvcConfigurer
  org.example.customer_management.config.WebConfig 17

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

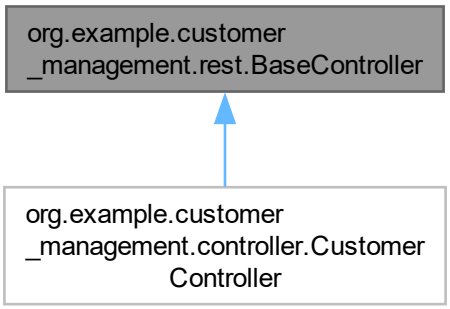
org.example.customer_management.rest.BaseController 5
org.example.customer_management.entity.Customer 6
org.example.customer_management.controller.CustomerController 6
org.example.customer_management.dto.CustomerDto 7
org.example.customer_management.CustomerManagementApplication 8
org.example.customer_management.repository.CustomerRepository 8
org.example.customer_management.request.CustomerRequest 9
org.example.customer_management.response.CustomerResponse 10
org.example.customer_management.service.CustomerService 10
org.example.customer_management.service.impl.CustomerServiceImpl 11
org.example.customer_management.enums.CustomerTier 13
org.example.customer_management.rest.DataResponse< T > 14
org.example.customer_management.mapper.Mapper 14
org.example.customer_management.enums.MessageCodes 14
org.example.customer_management.rest.MetaResponse 15
org.example.customer_management.rest.PageResponse< T > 15
org.example.customer_management.rest.Response< T > 16
org.example.customer_management.rest.ResponseBuilder 16
org.example.customer_management.config.SwaggerConfig 17
org.example.customer_management.config.WebConfig 17

Chapter 3

Class Documentation

3.1 org.example.customer_management.rest.BaseController Class Reference

Inheritance diagram for org.example.customer_management.rest.BaseController:



Protected Member Functions

- Response< MetaResponse > **respond** (MetaResponse metaResponse)

3.1.1 Detailed Description

Base controller class that provides common response handling methods. This class simplifies API response generation by using `ResponseBuilder`.

Instead of manually calling `ResponseBuilder` in each controller, controllers can extend this class and use the `respond()` methods directly.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/rest/BaseController.↩ java

3.2 org.example.customer_management.entity.Customer Class Reference

Public Member Functions

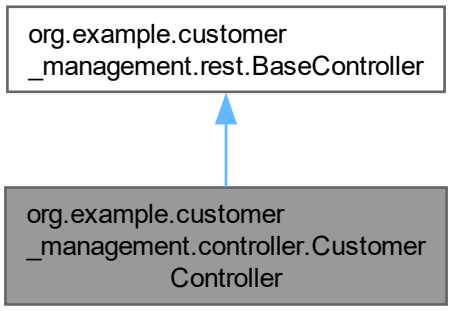
- **Customer** (UUID id, String name, String email, BigDecimal annualSpend, LocalDateTime lastPurchaseDate)
- **Customer** (String name, String email, BigDecimal annualSpend, LocalDateTime lastPurchaseDate)
- UUID **getId** ()
- void **setId** (UUID id)
- String **getName** ()
- void **setName** (@NotBlank(message="Name is required") String name)
- String **getEmail** ()
- void **setEmail** (@NotBlank(message="Email is required") @Email(message="Email should be valid") String email)
- BigDecimal **getAnnualSpend** ()
- void **setAnnualSpend** (BigDecimal annualSpend)
- LocalDateTime **getLastPurchaseDate** ()
- void **setLastPurchaseDate** (LocalDateTime lastPurchaseDate)

The documentation for this class was generated from the following file:

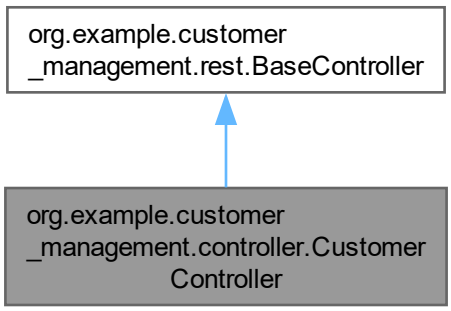
- IdeaProjects/customer_management/src/main/java/org/example/customer_management/entity/Customer.↩ java

3.3 org.example.customer_management.controller.CustomerController Class Reference

Inheritance diagram for org.example.customer_management.controller.CustomerController:



Collaboration diagram for org.example.customer_management.controller.CustomerController:



Public Member Functions

- **CustomerController** (CustomerService customerService)
- Response< CustomerResponse > **createCustomer** (@Valid @RequestBody CustomerRequest request)
- Response< CustomerResponse > **getCustomerById** (@PathVariable UUID id)
- Response< CustomerResponse > **getCustomerByEmail** (@RequestParam String email)
- Response< CustomerResponse > **getCustomerByName** (@RequestParam String name)
- Response< CustomerResponse > **updateCustomer** (@PathVariable UUID id, @Valid @RequestBody CustomerRequest request)
- Response< Void > **deleteCustomer** (@PathVariable UUID id)

Additional Inherited Members

Protected Member Functions inherited from org.example.customer_management.rest.BaseController

- Response< MetaResponse > **respond** (MetaResponse metaResponse)

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/controller/Customer↩ Controller.java

3.4 org.example.customer_management.dto.CustomerDto Class Reference

Public Member Functions

- **CustomerDto** (UUID id, String name, String email, BigDecimal annualSpend, LocalDateTime lastPurchase↩ Date, CustomerTier tier)

- **CustomerDto** (String invalidUser, String s, BigDecimal bigDecimal, LocalDateTime now)
- UUID **getId** ()
- void **setId** (UUID id)
- String **getName** ()
- void **setName** (String name)
- String **getEmail** ()
- void **setEmail** (String email)
- BigDecimal **getAnnualSpend** ()
- void **setAnnualSpend** (BigDecimal annualSpend)
- LocalDateTime **getLastPurchaseDate** ()
- void **setLastPurchaseDate** (LocalDateTime lastPurchaseDate)
- CustomerTier **getTier** ()
- void **setTier** (CustomerTier tier)

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/dto/Customer↩ Dto.java

3.5 org.example.customer_management.CustomerManagement↩ Application Class Reference

Static Public Member Functions

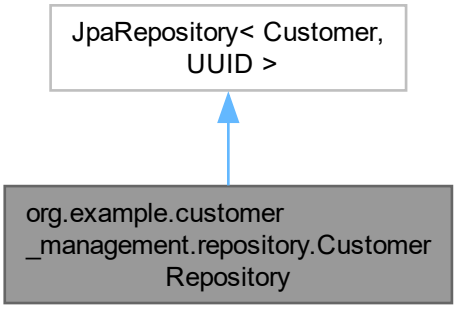
- static void **main** (String[ ] args)

The documentation for this class was generated from the following file:

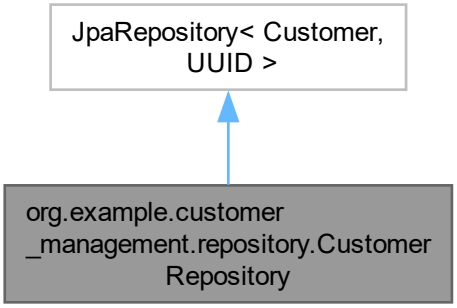
- IdeaProjects/customer_management/src/main/java/org/example/customer_management/Customer↩ ManagementApplication.java

3.6 org.example.customer_management.repository.CustomerRepository Interface Reference

Inheritance diagram for org.example.customer_management.repository.CustomerRepository:



Collaboration diagram for org.example.customer_management.repository.CustomerRepository:



Public Member Functions

- Optional< Customer > **findByEmail** (String email)
- Optional< Customer > **findByName** (String name)

The documentation for this interface was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/repository/Customer↩ Repository.java

3.7 org.example.customer_management.request.CustomerRequest Class Reference

Public Member Functions

- **CustomerRequest** (String name, String email, BigDecimal annualSpend, LocalDateTime lastPurchaseDate)
- String **getName** ()
- void **setName** (@NotBlank(message="Name is required") String name)
- String **getEmail** ()
- void **setEmail** (@NotBlank(message="Email is required") @Email(message="Email should be valid") String email)
- BigDecimal **getAnnualSpend** ()
- void **setAnnualSpend** (BigDecimal annualSpend)
- LocalDateTime **getLastPurchaseDate** ()
- void **setLastPurchaseDate** (LocalDateTime lastPurchaseDate)

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/request/Customer↩ Request.java

3.8 org.example.customer_management.response.CustomerResponse Class Reference

Public Member Functions

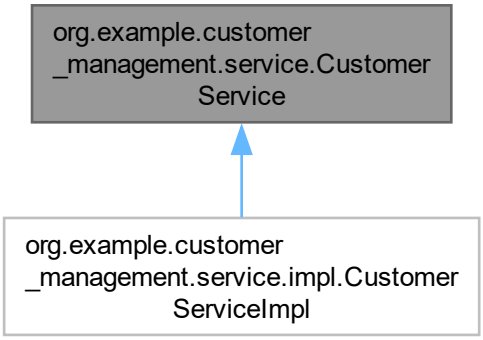
- **CustomerResponse** (UUID id, String name, String email, BigDecimal annualSpend, LocalDateTime last↩ PurchaseDate, CustomerTier tier)
- UUID **getId** ()
- void **setId** (UUID id)
- String **getName** ()
- void **setName** (String name)
- String **getEmail** ()
- void **setEmail** (String email)
- BigDecimal **getAnnualSpend** ()
- void **setAnnualSpend** (BigDecimal annualSpend)
- LocalDateTime **getLastPurchaseDate** ()
- void **setLastPurchaseDate** (LocalDateTime lastPurchaseDate)
- CustomerTier **getTier** ()
- void **setTier** (CustomerTier tier)

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/response/Customer↩ Response.java

3.9 org.example.customer_management.service.CustomerService Interface Reference

Inheritance diagram for org.example.customer_management.service.CustomerService:



Public Member Functions

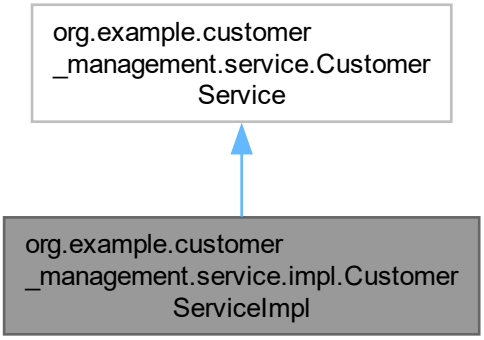
- CustomerDto **createCustomer** (CustomerDto dto)
- CustomerDto **getCustomerById** (UUID id)
- CustomerDto **getCustomerByEmail** (String email)
- CustomerDto **getCustomerByName** (String name)
- CustomerDto **updateCustomer** (UUID id, CustomerDto dto)
- void **deleteCustomer** (UUID id)

The documentation for this interface was generated from the following file:

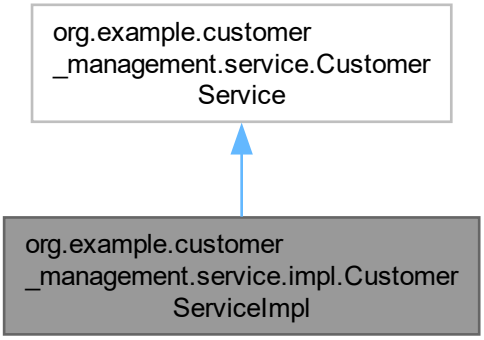
- IdeaProjects/customer_management/src/main/java/org/example/customer_management/service/Customer↩ Service.java

3.10 org.example.customer_management.service.impl.Customer↩ ServiceImpl Class Reference

Inheritance diagram for org.example.customer_management.service.impl.CustomerServiceImpl:



Collaboration diagram for org.example.customer_management.service.impl.CustomerServiceImpl:



Public Member Functions

- **CustomerServiceImpl** (CustomerRepository customerRepository)
- CustomerDto createCustomer (CustomerDto dto)
- CustomerDto getCustomerById (UUID id)
- CustomerDto getCustomerByEmail (String email)
- CustomerDto getCustomerByName (String name)
- CustomerDto updateCustomer (UUID id, CustomerDto dto)
- void deleteCustomer (UUID id)

Static Public Member Functions

- static CustomerTier **calculateTier** (BigDecimal spend, LocalDateTime lastPurchaseDate)

3.10.1 Member Function Documentation

3.10.1.1 createCustomer()

```
CustomerDto org.example.customer_management.service.impl.CustomerServiceImpl.createCustomer (
            CustomerDto dto)  [inline]
```

Implements org.example.customer_management.service.CustomerService.

3.10.1.2 deleteCustomer()

```
void org.example.customer_management.service.impl.CustomerServiceImpl.deleteCustomer (
            UUID id)  [inline]
```

Implements org.example.customer_management.service.CustomerService.

3.10.1.3 getCustomerByEmail()

```
CustomerDto org.example.customer_management.service.impl.CustomerServiceImpl.getCustomerBy↩
Email (
            String email)  [inline]
```

Implements org.example.customer_management.service.CustomerService.

3.10.1.4 getCustomerById()

```
CustomerDto org.example.customer_management.service.impl.CustomerServiceImpl.getCustomerById (
            UUID id)  [inline]
```

Implements org.example.customer_management.service.CustomerService.

3.10.1.5 getCustomerByName()

```
CustomerDto org.example.customer_management.service.impl.CustomerServiceImpl.getCustomerByName
(
            String name)  [inline]
```

Implements org.example.customer_management.service.CustomerService.

3.10.1.6 updateCustomer()

```
CustomerDto org.example.customer_management.service.impl.CustomerServiceImpl.updateCustomer (
            UUID id,
            CustomerDto dto)  [inline]
```

Implements org.example.customer_management.service.CustomerService.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/service/impl/Customer↩ ServiceImpl.java

3.11 org.example.customer_management.enums.CustomerTier Enum Reference

Public Attributes

- **SILVER**
- **GOLD**
- **PLATINUM**

The documentation for this enum was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/enums/Customer↩ Tier.java

3.12 org.example.customer_management.rest.DataResponse< T > Class Template Reference

Public Member Functions

- String **toString** ()

3.12.1 Detailed Description

Generic response model for handling lists of data items. Uses a generic type parameter <T> to support various data types. Implements a custom toString() method for better readability.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/rest/DataResponse.↩ java

3.13 org.example.customer_management.mapper.Mapper Class Reference

Static Public Member Functions

- static CustomerDto **toDto** (@Valid CustomerRequest request)
- static CustomerResponse **toResponse** (CustomerDto dto)
- static CustomerDto **toDto** (Customer customer)
- static Customer **toEntity** (CustomerDto dto)

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/mapper/Mapper.↩ java

3.14 org.example.customer_management.enums.MessageCodes Enum Reference

Public Member Functions

- String **getCode** ()
- String **getMessage** ()
- **MessageCodes** (String code, String message)

Public Attributes

- **SUCCESS** =("200", "general.success")
- **FAIL** =("500", "general.fail")
- **ENTITY_ALREADY_EXISTS** =("409", "general.entityAlreadyExists")
- **TOKEN_EXPIRED** =("1025", "general.tokenExpired")

The documentation for this enum was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/enums/Message↩ Codes.java

3.15 org.example.customer_management.rest.MetaResponse Class Reference

Static Public Member Functions

- static MetaResponse **of** (String code, String description)
- static MetaResponse **success** ()
- static MetaResponse **fail** (String description)

3.15.1 Detailed Description

MetaResponse model class that represents a standardized response structure. It includes a description and a response code. Provides utility methods for success and failure responses.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/rest/MetaResponse.↩ java

3.16 org.example.customer_management.rest.PageResponse< T > Class Template Reference

Public Member Functions

- String **toString** ()

3.16.1 Detailed Description

Generic response model for paginated data. Uses a generic type parameter <T> to support various data types. Wraps data in a Page<T> structure to handle pagination efficiently. Implements a custom toString() method for better readability.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/rest/PageResponse.↩ java

3.17 org.example.customer_management.rest.Response< T > Class Template Reference

Public Member Functions

- **Response** (MetaResponse meta)
- **Response** (T data)
- String **toString** ()

3.17.1 Detailed Description

Generic response model for API responses. This class encapsulates both the actual response data and metadata about the response.

Parameters

<T>	The type of the response data.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/rest/Response.java

3.18 org.example.customer_management.rest.ResponseBuilder Class Reference

Static Public Member Functions

- static< T > Response< DataResponse< T > > **build** (List< T > items)
- static< T > Response< PageResponse< T > > **build** (Page< T > items)
- static< T > Response< T > **build** (T item)
- static Response< MetaResponse > **build** (MetaResponse metaResponse)

3.18.1 Detailed Description

Utility class for building standardized API responses. Provides static methods to create `Response<T>` objects from different data structures.

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/rest/Response↩ Builder.java

3.19 org.example.customer_management.config.SwaggerConfig Class Reference

Public Member Functions

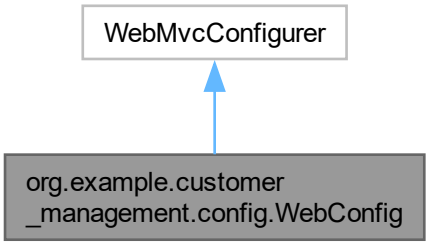
- OpenAPI **customOpenAPI** ()

The documentation for this class was generated from the following file:

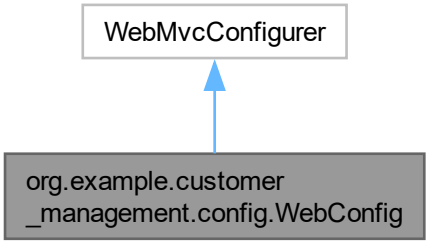
- IdeaProjects/customer_management/src/main/java/org/example/customer_management/config/Swagger↩ Config.java

3.20 org.example.customer_management.config.WebConfig Class Reference

Inheritance diagram for org.example.customer_management.config.WebConfig:



Collaboration diagram for org.example.customer_management.config.WebConfig:



Public Member Functions

- void **addCorsMappings** (CorsRegistry registry)

The documentation for this class was generated from the following file:

- IdeaProjects/customer_management/src/main/java/org/example/customer_management/config/Web↩ Config.java

Index

createCustomer
org.example.customer_management.service.impl.CustomerServiceImpl, 12

deleteCustomer
org.example.customer_management.service.impl.CustomerServiceImpl, 12

getCustomerByEmail
org.example.customer_management.service.impl.CustomerServiceImpl, 12
getCustomerById
org.example.customer_management.service.impl.CustomerServiceImpl, 13
getCustomerByName
org.example.customer_management.service.impl.CustomerServiceImpl, 13

org.example.customer_management.config.SwaggerConfig, 17
org.example.customer_management.config.WebConfig, 17
org.example.customer_management.controller.CustomerController, 6
org.example.customer_management.CustomerManagementApplication, 8
org.example.customer_management.dto.CustomerDto, 7
org.example.customer_management.entity.Customer, 6
org.example.customer_management.enums.CustomerTier, 13
org.example.customer_management.enums.MessageCodes, 14
org.example.customer_management.mapper.Mapper, 14
org.example.customer_management.repository.CustomerRepository, 8
org.example.customer_management.request.CustomerRequest, 9
org.example.customer_management.response.CustomerResponse, 10
org.example.customer_management.rest.BaseController, 5
org.example.customer_management.rest.DataResponse< T >, 14
org.example.customer_management.rest.MetaResponse, 15
org.example.customer_management.rest.PageResponse< T >, 15
org.example.customer_management.rest.Response< T >, 16
org.example.customer_management.rest.ResponseBuilder, 16
org.example.customer_management.service.CustomerService, 10
org.example.customer_management.service.impl.CustomerServiceImpl, 11
createCustomer, 12
deleteCustomer, 12
getCustomerByEmail, 12
getCustomerById, 13
getCustomerByName, 13
updateCustomer, 13
org.example.customer_management.service.impl.CustomerServiceImpl, 13
updateCustomer