

MyBattery

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

com.batteryworkshop.repositories	
Repository interface for Battery entity	7

Chapter 2

Hierarchical Index

2.1 Class Hierarchy

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

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Chapter 3

Class Index

3.1 Class List

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

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Chapter 4

Namespace Documentation

4.1 Package com.batteryworkshop.repositories

Repository interface for [Battery](#) entity.

Classes

- interface [BatteryRepository](#)
- interface [ItemReparacionRepository](#)
- interface [ReporteRepository](#)

4.1.1 Detailed Description

Repository interface for [Battery](#) entity.

Repository interface for repair reports.

Repository interface for repair items.

Extends JpaRepository to provide CRUD operations and JPA functionality for [Battery](#) entities. The Long parameter represents the type of the primary key.

Since

1.0

Extends JpaRepository to provide CRUD operations and JPA functionality for [ItemReparacion](#) entities. The Long parameter represents the type of the primary key.

Since

1.0

Extends JpaRepository to provide CRUD operations and JPA functionality for [RepairReport](#) entities. The Long parameter represents the type of the primary key.

Since

1.0

Chapter 5

Class Documentation

5.1 `com.batteryworkshop.models.Battery` Class Reference

[Battery](#) entity registered in the workshop system.

Collaboration diagram for com.batteryworkshop.models.Battery:

com.batteryworkshop.models. Battery
<div>+ Battery(String model, String description, BigDecimal baseCost)</div> <div>+ Long getId()</div> <div>+ String getModel()</div> <div>+ String getDescription()</div> <div>+ BigDecimal getBaseCost()</div> <div>+ List< RepairReport > getRepairReports()</div> <div>+ RepairReport addRepairReport()</div> <div>+ void setAmperaje(BigDecimal newAmpere)</div> <div>+ void setCarga(boolean carga)</div> <div>+ void setDescarga(boolean descarga)</div> <div>+ void setVoltaje(BigDecimal newVoltaje)</div> <div>+ BigDecimal getVoltage()</div> <div>+ BigDecimal getAmpere()</div> <div>+ boolean isCharge()</div> <div>+ boolean isDischarge()</div> <div># Battery()</div>

Public Member Functions

- [Battery](#) (String model, String description, BigDecimal baseCost)
Creates a new [Battery](#) instance with required basic data.
- Long [getId](#) ()
Gets the unique identifier of the battery.
- String [getModel](#) ()
Gets the battery model.
- String [getDescription](#) ()
Gets the battery description.
- BigDecimal [getBaseCost](#) ()
Gets the base repair cost of the battery.

- List< [RepairReport](#) > [getRepairReports](#) ()
Gets an immutable list of repair reports associated with this battery.
- [RepairReport](#) [addRepairReport](#) ()
Creates and adds a new repair report to the battery.
- void [setAmperaje](#) (BigDecimal newAmpere)
Sets the ampere of the battery.
- void [setCarga](#) (boolean carga)
Sets the charging state of the battery.
- void [setDescarga](#) (boolean descarga)
Sets the discharging state of the battery.
- void [setVoltaje](#) (BigDecimal newVoltaje)
Sets the voltage of the battery.
- BigDecimal [getVoltage](#) ()
Gets the voltage of the battery.
- BigDecimal [getAmpere](#) ()
Gets the ampere rating of the battery.
- boolean [isCharge](#) ()
Checks if the battery is in a charging state.
- boolean [isDischarge](#) ()
Checks if the battery is in a discharging state.

Protected Member Functions

- [Battery](#) ()
Protected no-args constructor required by JPA.

5.1.1 Detailed Description

[Battery](#) entity registered in the workshop system.

This entity stores the basic battery information and its associated repair reports. The battery has a predefined model, description and base repair cost.

Since

1.0

5.1.2 Constructor & Destructor Documentation

5.1.2.1 [Battery](#)() [1/2]

```
com.batteryworkshop.models.Battery.Battery () [inline], [protected]
```

Protected no-args constructor required by JPA.

Should not be used directly in application code.

5.1.2.2 [Battery](#)() [2/2]

```
com.batteryworkshop.models.Battery.Battery (
    String model,
    String description,
    BigDecimal baseCost) [inline]
```

Creates a new [Battery](#) instance with required basic data.

Parameters

<i>model</i>	The battery model or type (cannot be null)
<i>description</i>	The detailed battery description (can be null)
<i>baseCost</i>	The base repair cost (cannot be null)

Exceptions

<i>IllegalArgumentException</i>	if model or baseCost are null
---------------------------------	-------------------------------

5.1.3 Member Function Documentation

5.1.3.1 addRepairReport()

`RepairReport` `com.batteryworkshop.models.Battery.addRepairReport ()` [inline]

Creates and adds a new repair report to the battery.

Returns

The newly created and added repair report

Maintains bidirectional consistency of the relationship between [Battery](#) and [RepairReport](#). Here is the caller graph for this function:



5.1.3.2 getAmpere()

`BigDecimal` `com.batteryworkshop.models.Battery.getAmpere ()` [inline]

Gets the ampere rating of the battery.

Returns

The ampere rating of the battery.

5.1.3.3 getBaseCost()

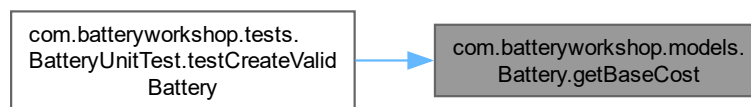
```
BigDecimal com.batteryworkshop.models.Battery.getBaseCost () [inline]
```

Gets the base repair cost of the battery.

Returns

The base repair cost

Here is the caller graph for this function:



5.1.3.4 getDescription()

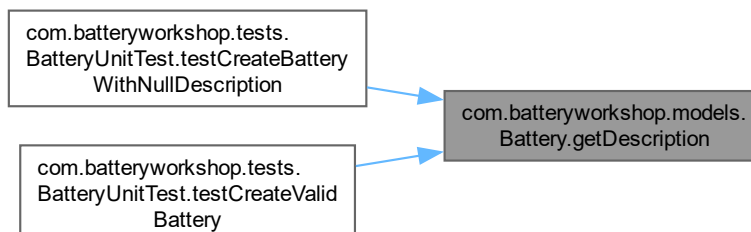
```
String com.batteryworkshop.models.Battery.getDescription () [inline]
```

Gets the battery description.

Returns

The battery description, can be null

Here is the caller graph for this function:



5.1.3.5 getId()

```
Long com.batteryworkshop.models.Battery.getId () [inline]
```

Gets the unique identifier of the battery.

Returns

The battery ID

5.1.3.6 getModel()

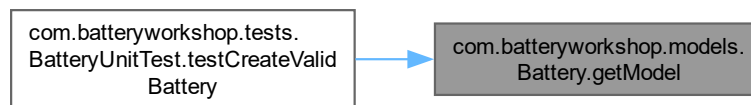
```
String com.batteryworkshop.models.Battery.getModel () [inline]
```

Gets the battery model.

Returns

The battery model

Here is the caller graph for this function:



5.1.3.7 getRepairReports()

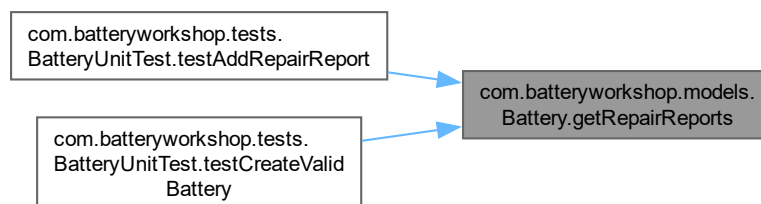
```
List< RepairReport > com.batteryworkshop.models.Battery.getRepairReports () [inline]
```

Gets an immutable list of repair reports associated with this battery.

Returns

Immutable list of repair reports

The returned list cannot be modified to maintain encapsulation. Here is the caller graph for this function:



5.1.3.8 getVoltage()

```
BigDecimal com.batteryworkshop.models.Battery.getVoltage () [inline]
```

Gets the voltage of the battery.

Returns

The voltage of the battery.

5.1.3.9 isCharge()

```
boolean com.batteryworkshop.models.Battery.isCharge () [inline]
```

Checks if the battery is in a charging state.

Returns

True if the battery is charging, otherwise false.

5.1.3.10 isDischarge()

```
boolean com.batteryworkshop.models.Battery.isDischarge () [inline]
```

Checks if the battery is in a discharging state.

Returns

True if the battery is discharging, otherwise false.

5.1.3.11 setAmperaje()

```
void com.batteryworkshop.models.Battery.setAmperaje (  
    BigDecimal newAmpere) [inline]
```

Sets the ampere of the battery.

Parameters

<i>newAmpere</i>	The new value for the ampere of the battery.
------------------	--

5.1.3.12 setCarga()

```
void com.batteryworkshop.models.Battery.setCarga (  
    boolean carga) [inline]
```

Sets the charging state of the battery.

Parameters

<i>carga</i>	The new charging state of the battery.
--------------	--

5.1.3.13 setDescarga()

```
void com.batteryworkshop.models.Battery.setDescarga (  
    boolean descarga) [inline]
```

Sets the discharging state of the battery.

Parameters

<i>descarga</i>	The new discharging state of the battery.
-----------------	---

5.1.3.14 setVoltaje()

```
void com.batteryworkshop.models.Battery.setVoltaje (  
    BigDecimal newVoltaje) [inline]
```

Sets the voltage of the battery.

Parameters

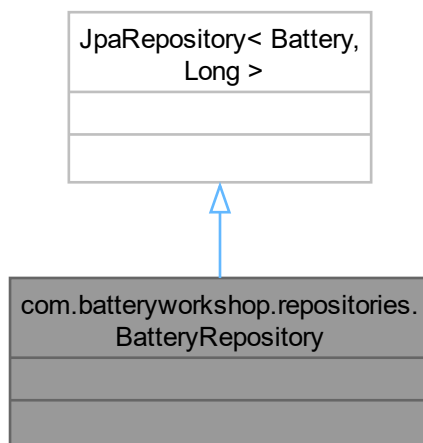
<i>newVoltaje</i>	The new voltage of the battery.
-------------------	---------------------------------

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

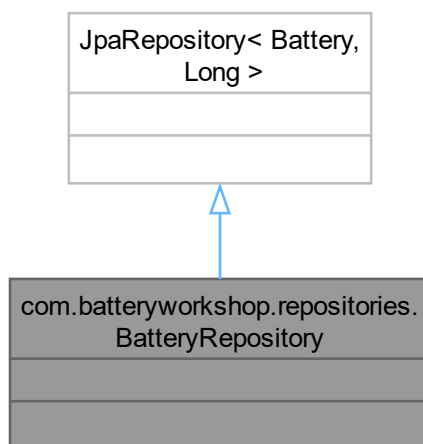
- src/main/java/com/batteryworkshop/models/Battery.java

5.2 com.batteryworkshop.repositories.BatteryRepository Interface Reference

Inheritance diagram for com.batteryworkshop.repositories.BatteryRepository:



Collaboration diagram for com.batteryworkshop.repositories.BatteryRepository:



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

- `src/main/java/com/batteryworkshop/repositories/BatteryRepository.java`

5.3 com.batteryworkshop.tests.BatteryUnitTest Class Reference

Pruebas unitarias para la clase [Battery](#).

Collaboration diagram for com.batteryworkshop.tests.BatteryUnitTest:

com.batteryworkshop.tests. BatteryUnitTest
<div>+ void testCreateValidBattery() + void testCreateBatteryWith NullModel() + void testCreateBatteryWith NullBaseCost() + void testCreateBatteryWith NullDescription() + void testAddRepairReport()</div>

Public Member Functions

- void [testCreateValidBattery](#) ()
Prueba la creación exitosa de una batería con todos los campos válidos.
- void [testCreateBatteryWithNullModel](#) ()
Prueba que se lance una excepción al crear una batería con modelo null.
- void [testCreateBatteryWithNullBaseCost](#) ()
Prueba que se lance una excepción al crear una batería con un coste base null.
- void [testCreateBatteryWithNullDescription](#) ()
Prueba la creación de una batería con una descripción null.
- void [testAddRepairReport](#) ()
Prueba la adición de reportes de reparación a una batería.

5.3.1 Detailed Description

Pruebas unitarias para la clase [Battery](#).

Verifican el correcto funcionamiento de la creación y gestión de objetos [Battery](#).

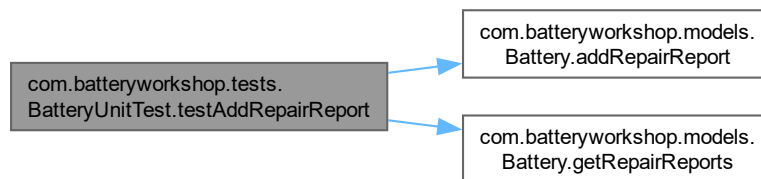
5.3.2 Member Function Documentation

5.3.2.1 testAddRepairReport()

```
void com.batteryworkshop.tests.BatteryUnitTest.testAddRepairReport () [inline]
```

Prueba la adición de reportes de reparación a una batería.

Verifica que al añadir reportes de reparación, se actualice correctamente la lista en la batería. Here is the call graph for this function:



5.3.2.2 testCreateBatteryWithNullBaseCost()

```
void com.batteryworkshop.tests.BatteryUnitTest.testCreateBatteryWithNullBaseCost () [inline]
```

Prueba que se lance una excepción al crear una batería con un coste base null.

Exceptions

<code>IllegalArgumentException</code>	Si el coste base es null.
---------------------------------------	---------------------------

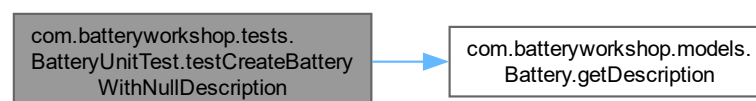
Verifica que la clase [Battery](#) valide correctamente el coste base durante su creación.

5.3.2.3 testCreateBatteryWithNullDescription()

```
void com.batteryworkshop.tests.BatteryUnitTest.testCreateBatteryWithNullDescription () [inline]
```

Prueba la creación de una batería con una descripción null.

Verifica que las descripciones nulas sean permitidas por la clase [Battery](#). Here is the call graph for this function:



5.3.2.4 testCreateBatteryWithNullModel()

```
void com.batteryworkshop.tests.BatteryUnitTest.testCreateBatteryWithNullModel () [inline]
```

Prueba que se lance una excepción al crear una batería con modelo null.

Exceptions

<i>IllegalArgumentException</i>	Si el modelo es null.
---------------------------------	-----------------------

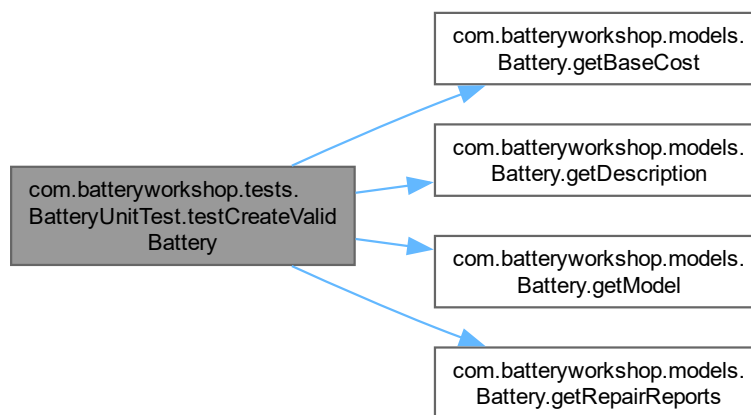
Verifica que la clase [Battery](#) valide correctamente el modelo durante su creación.

5.3.2.5 testCreateValidBattery()

```
void com.batteryworkshop.tests.BatteryUnitTest.testCreateValidBattery () [inline]
```

Prueba la creación exitosa de una batería con todos los campos válidos.

Verifica que el modelo, la descripción y el coste base se almacenen correctamente y que inicialmente no haya reportes asociados. Here is the call graph for this function:

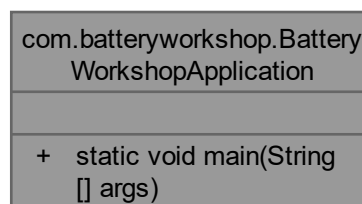


The documentation for this class was generated from the following file:

- `src/test/java/com/batteryworkshop/tests/BatteryUnitTest.java`

5.4 com.batteryworkshop.BatteryWorkshopApplication Class Reference

Collaboration diagram for `com.batteryworkshop.BatteryWorkshopApplication`:



Static Public Member Functions

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

5.4.1 Detailed Description

Main class that initializes the Battery Workshop application. This class configures and boots up the Spring Boot context, initializing all components and services required for the application.

5.4.2 Member Function Documentation

5.4.2.1 `main()`

```
static void com.batteryworkshop.BatteryWorkshopApplication.main (  
    String[] args)    [inline], [static]
```

Main entry point of the application. Initializes the Spring Boot context and configures the application.

Parameters

<code>args</code>	Command line arguments passed to the application
-------------------	--

Exceptions

<code>RuntimeException</code>	if there is an error during application startup
-------------------------------	---

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

- `src/main/java/com/batteryworkshop/BatteryWorkshopApplication.java`

5.5 `com.batteryworkshop.models.ItemReparacion` Class Reference

Repair item used during battery repairs.

Collaboration diagram for com.batteryworkshop.models.ItemReparacion:

com.batteryworkshop.models. ItemReparacion
<ul style="list-style-type: none"> + ItemReparacion(String nombre, BigDecimal precio) + ItemReparacion(String nombre, BigDecimal precio, RepairReport reporte) + Long getId() + String getNombre() + BigDecimal getPrecio() + String getDescripcion() + void setDescripcion (String descripcion) + RepairReport getReporte() + boolean equals(Object o) + int hashCode() + void setReporte(RepairReport repairReport) # ItemReparacion()

Public Member Functions

- [ItemReparacion](#) (String nombre, BigDecimal precio)
Creates a new repair item instance without an associated report.
- [ItemReparacion](#) (String nombre, BigDecimal precio, [RepairReport](#) reporte)
Creates a new repair item instance.
- Long [getId](#) ()
Gets the unique identifier of the item.
- String [getNombre](#) ()
Gets the name of the item.
- BigDecimal [getPrecio](#) ()
Gets the price of the item.
- String [getDescripcion](#) ()
Gets the description of the item.
- void [setDescripcion](#) (String descripcion)
Sets the description of the item.
- [RepairReport](#) [getReporte](#) ()
Gets the associated repair report.
- boolean [equals](#) (Object o)

Checks if two repair items are equal.

- int `hashCode` ()

Generates hash code for the repair item.

- void `setReporte` (`RepairReport` repairReport)

Sets the associated repair report.

Protected Member Functions

- `ItemReparacion` ()

Protected no-args constructor required by JPA.

5.5.1 Detailed Description

Repair item used during battery repairs.

Each item has an identifying name and price that contributes to the total report cost. Items can be components like BMS, casing or cells.

Since

1.0

5.5.2 Constructor & Destructor Documentation

5.5.2.1 `ItemReparacion()` [1/2]

```
com.batteryworkshop.models.ItemReparacion.ItemReparacion (
    String nombre,
    BigDecimal precio) [inline]
```

Creates a new repair item instance without an associated report.

Parameters

<i>nombre</i>	Name of the item (cannot be null or empty)
<i>precio</i>	Price of the item (cannot be null or negative)

Exceptions

<code>IllegalArgumentException</code>	if <i>nombre</i> or <i>precio</i> parameters are invalid
---------------------------------------	--

5.5.2.2 `ItemReparacion()` [2/2]

```
com.batteryworkshop.models.ItemReparacion.ItemReparacion (
    String nombre,
    BigDecimal precio,
    RepairReport reporte) [inline]
```

Creates a new repair item instance.

Parameters

<i>nombre</i>	Name of the item (cannot be null or empty)
<i>precio</i>	Price of the item (cannot be null or negative)
<i>reporte</i>	Associated repair report (optional)

Exceptions

<i>IllegalArgumentException</i>	if nombre or precio parameters are invalid
---------------------------------	--

5.5.3 Member Function Documentation

5.5.3.1 equals()

```
boolean com.batteryworkshop.models.ItemReparacion.equals (  
    Object o) [inline]
```

Checks if two repair items are equal.

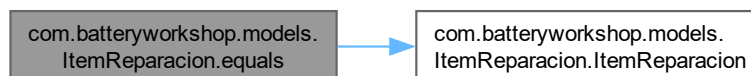
Parameters

<i>o</i>	Object to compare with
----------	------------------------

Returns

true if items have same ID, false otherwise

Here is the call graph for this function:



5.5.3.2 getDescripcion()

```
String com.batteryworkshop.models.ItemReparacion.getDescripcion () [inline]
```

Gets the description of the item.

Returns

Description of the repair item

5.5.3.3 getId()

```
Long com.batteryworkshop.models.ItemReparacion.getId () [inline]
```

Gets the unique identifier of the item.

Returns

ID of the repair item

5.5.3.4 getNombre()

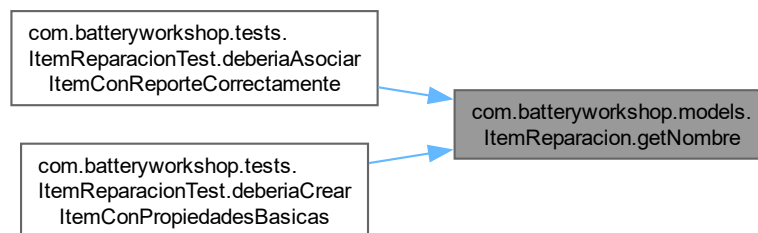
```
String com.batteryworkshop.models.ItemReparacion.getNombre () [inline]
```

Gets the name of the item.

Returns

Name of the repair item

Here is the caller graph for this function:



5.5.3.5 getPrecio()

```
BigDecimal com.batteryworkshop.models.ItemReparacion.getPrecio () [inline]
```

Gets the price of the item.

Returns

Price of the repair item

Here is the caller graph for this function:



5.5.3.6 getReporte()

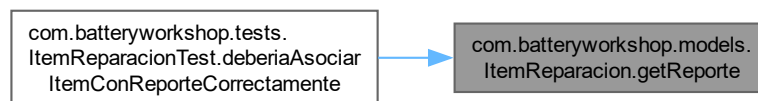
```
RepairReport com.batteryworkshop.models.ItemReparacion.getReporte () [inline]
```

Gets the associated repair report.

Returns

Associated repair report

Here is the caller graph for this function:



5.5.3.7 hashCode()

```
int com.batteryworkshop.models.ItemReparacion.hashCode () [inline]
```

Generates hash code for the repair item.

Returns

Hash code based on item ID

5.5.3.8 setDescription()

```
void com.batteryworkshop.models.ItemReparacion.setDescription (
    String descripcion) [inline]
```

Sets the description of the item.

Parameters

<i>descripcion</i>	New description for the item
--------------------	------------------------------

5.5.3.9 setReporte()

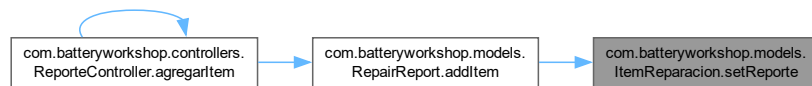
```
void com.batteryworkshop.models.ItemReparacion.setReporte (
    RepairReport repairReport) [inline]
```

Sets the associated repair report.

Parameters

<i>repairReport</i>	Report to associate with this item
---------------------	------------------------------------

Here is the caller graph for this function:

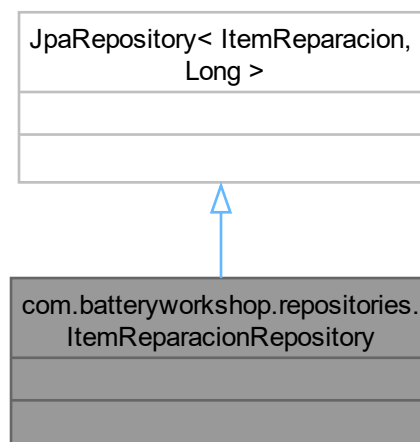


The documentation for this class was generated from the following file:

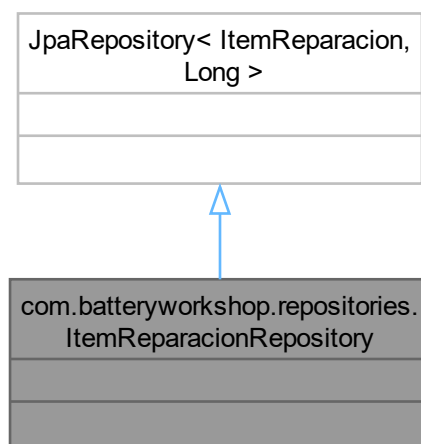
- src/main/java/com/batteryworkshop/models/ItemReparacion.java

5.6 com.batteryworkshop.repositories.ItemReparacionRepository Interface Reference

Inheritance diagram for com.batteryworkshop.repositories.ItemReparacionRepository:



Collaboration diagram for com.batteryworkshop.repositories.ItemReparacionRepository:

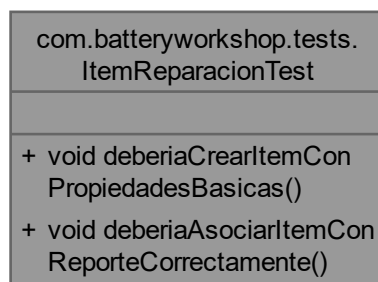


The documentation for this interface was generated from the following file:

- `src/main/java/com/batteryworkshop/repositories/ItemReparacionRepository.java`

5.7 com.batteryworkshop.tests.ItemReparacionTest Class Reference

Collaboration diagram for com.batteryworkshop.tests.ItemReparacionTest:



Public Member Functions

- void [deberiaCrearItemConPropiedadesBasicas](#) ()
- void [deberiaAsociarItemConReporteCorrectamente](#) ()

5.7.1 Detailed Description

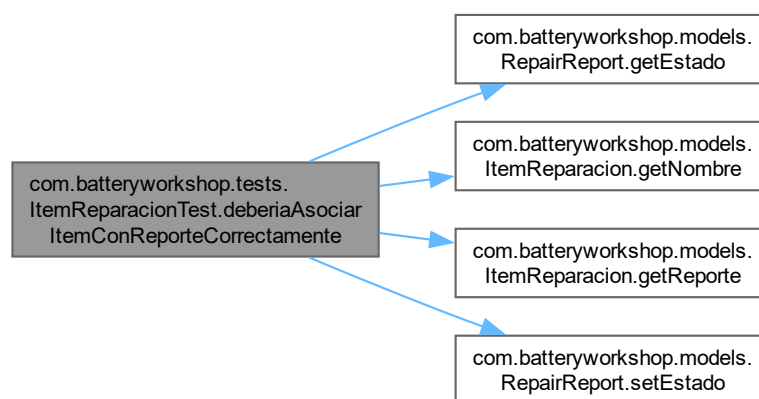
Pruebas unitarias para validar el comportamiento de [ItemReparacion](#).

5.7.2 Member Function Documentation

5.7.2.1 `deberiaAsociarItemConReporteCorrectamente()`

```
void com.batteryworkshop.tests.ItemReparacionTest.deberiaAsociarItemConReporteCorrectamente ()  
[inline]
```

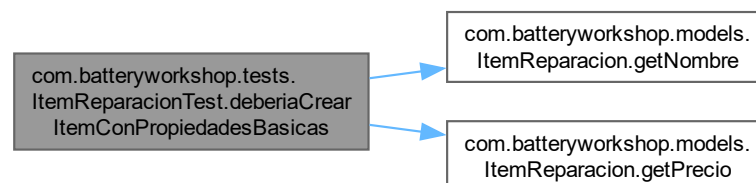
Verifica la correcta asociación entre un [ItemReparacion](#) y su [RepairReport](#). Here is the call graph for this function:



5.7.2.2 `deberiaCrearItemConPropiedadesBasicas()`

```
void com.batteryworkshop.tests.ItemReparacionTest.deberiaCrearItemConPropiedadesBasicas ()  
[inline]
```

Verifica la creación correcta de un [ItemReparacion](#) con sus propiedades básicas. Here is the call graph for this function:



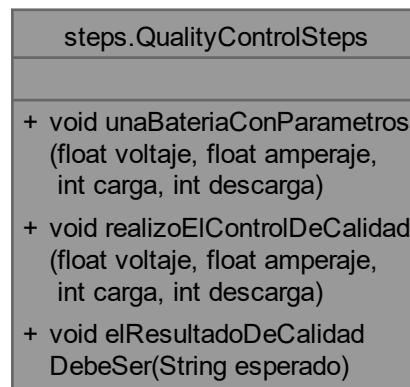
The documentation for this class was generated from the following file:

- `src/test/java/com/batteryworkshop/tests/ItemReparacionTest.java`

5.8 steps.QualityControlSteps Class Reference

Step definitions for quality control scenarios in Cucumber.

Collaboration diagram for steps.QualityControlSteps:



Public Member Functions

- void [unaBateriaConParametros](#) (float voltaje, float amperaje, int carga, int descarga)
Initializes a battery with specified parameters for testing.
- void [realizoElControlDeCalidad](#) (float voltaje, float amperaje, int carga, int descarga)
Performs the quality control test with specified parameters.
- void [elResultadoDeCalidadDebeSer](#) (String esperado)
Verifies the result of the quality control test.

5.8.1 Detailed Description

Step definitions for quality control scenarios in Cucumber.

Defines actions and validations to perform quality control processes on batteries using Gherkin scenarios.

5.8.2 Member Function Documentation

5.8.2.1 elResultadoDeCalidadDebeSer()

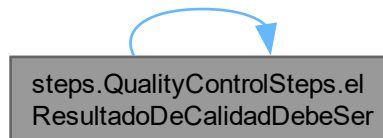
```
void steps.QualityControlSteps.elResultadoDeCalidadDebeSer (  
    String esperado) [inline]
```

Verifies the result of the quality control test.

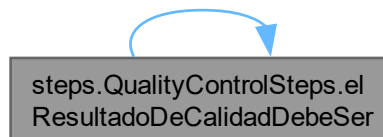
Parameters

<i>esperado</i>	Expected result ("true" for passing, "false" for failing).
-----------------	--

Here is the call graph for this function:



Here is the caller graph for this function:

**5.8.2.2 realizoElControlDeCalidad()**

```

void steps.QualityControlSteps.realizoElControlDeCalidad (
    float voltaje,
    float amperaje,
    int carga,
    int descarga) [inline]
  
```

Performs the quality control test with specified parameters.

Parameters

<i>voltaje</i>	Expected voltage to test against.
<i>amperaje</i>	Expected ampere rating to test against.
<i>carga</i>	Expected charging state (1 for true, 0 for false).
<i>descarga</i>	Expected discharging state (1 for true, 0 for false).

Here is the call graph for this function:



Here is the caller graph for this function:



5.8.2.3 unaBateriaConParametros()

```
void steps.QualityControlSteps.unaBateriaConParametros (
    float voltaje,
    float amperaje,
    int carga,
    int descarga) [inline]
```

Initializes a battery with specified parameters for testing.

Parameters

<i>voltaje</i>	Voltage of the battery.
<i>amperaje</i>	Ampere rating of the battery.
<i>carga</i>	Charging state of the battery (1 for true, 0 for false).
<i>descarga</i>	Discharging state of the battery (1 for true, 0 for false).

Here is the call graph for this function:



Here is the caller graph for this function:



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

- `src/test/java/steps/QualityControlSteps.java`

5.9 com.batteryworkshop.models.RepairReport Class Reference

Collaboration diagram for com.batteryworkshop.models.RepairReport:

com.batteryworkshop.models. RepairReport
<ul style="list-style-type: none"> + RepairReport() + RepairReport(Battery battery) + BigDecimal TotalCalculator() + String generateJsonSummary() + Long getId() + int getCurrentStep() + String getStatus() + boolean isCustomerApproved() + BigDecimal getExtraCost() + BigDecimal getTotal() and 15 more... + static boolean isQualityOk(Battery battery, BigDecimal voltaje, BigDecimal amperaje, boolean carga, boolean descarga)

Public Member Functions

- [RepairReport](#) ()
- [RepairReport](#) (Battery battery)
Creates a new repair report for a specific battery.
- BigDecimal [TotalCalculator](#) ()
- String [generateJsonSummary](#) ()
- Long [getId](#) ()
- int [getCurrentStep](#) ()
- String [getStatus](#) ()
- boolean [isCustomerApproved](#) ()
- BigDecimal [getExtraCost](#) ()
- BigDecimal [getTotal](#) ()
- Battery [getBattery](#) ()
- List< [ItemReparacion](#) > [getItems](#) ()
- void [addItem](#) (ItemReparacion item)
- void [setCurrentStep](#) (int currentStep)
- void [setStatus](#) (String status)

- void [setCancellationReason](#) (String reason)
- void [setCustomerApproved](#) (boolean approved)
- void [setExtraCost](#) (BigDecimal cost)
- void [setExtraReason](#) (String reason)
- void [setTotal](#) (BigDecimal total)
- String [getEstado](#) ()
- void [setEstado](#) (String newStatus)
- void [setPasoActual](#) (int currentStep)
- String [getExtraReason](#) ()
- String [getCancellationReason](#) ()

Static Public Member Functions

- static boolean [isQualityOk](#) ([Battery](#) battery, BigDecimal voltaje, BigDecimal amperaje, boolean carga, boolean descarga)

5.9.1 Detailed Description

Repair report entity for batteries. Contains complete repair process information including current status, costs and service details.

Since

1.0

5.9.2 Constructor & Destructor Documentation

5.9.2.1 [RepairReport\(\)](#) [1/2]

```
com.batteryworkshop.models.RepairReport.RepairReport () [inline]
```

Protected no-args constructor required by JPA. Should not be used directly in application code.

5.9.2.2 [RepairReport\(\)](#) [2/2]

```
com.batteryworkshop.models.RepairReport.RepairReport (
    Battery battery) [inline]
```

Creates a new repair report for a specific battery.

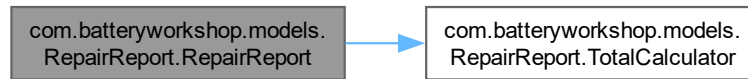
Parameters

<i>battery</i>	Battery associated with report
----------------	--

Exceptions

<i>IllegalArgumentException</i>	if battery is null
---------------------------------	--------------------

Initializes a repair report with zero extra cost and total cost. Here is the call graph for this function:



5.9.3 Member Function Documentation

5.9.3.1 addItem()

```
void com.batteryworkshop.models.RepairReport.addItem (
    ItemReparacion item) [inline]
```

Adds new repair item to the repair report.

Parameters

<i>item</i>	The repair item to add.
-------------	-------------------------

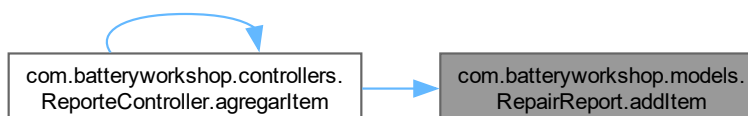
Exceptions

<i>IllegalArgumentException</i>	if item is null.
---------------------------------	------------------

Here is the call graph for this function:



Here is the caller graph for this function:



5.9.3.2 generateJsonSummary()

```
String com.batteryworkshop.models.RepairReport.generateJsonSummary () [inline]
```

Generates a JSON summary of the repair report. Includes battery information, costs, and repair items.

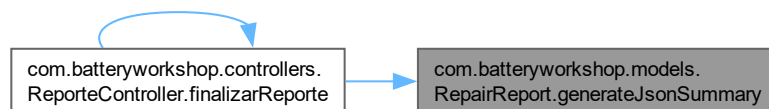
Returns

JSON string containing the repair report summary.

Here is the call graph for this function:



Here is the caller graph for this function:



5.9.3.3 getBattery()

```
Battery com.batteryworkshop.models.RepairReport.getBattery () [inline]
```

Retrieves the battery associated with the repair report.

Returns

The associated [Battery](#) object.

5.9.3.4 getCancellationReason()

```
String com.batteryworkshop.models.RepairReport.getCancellationReason () [inline]
```

Retrieves the reason for repair cancellation.

Returns

Cancellation reason as a string.

5.9.3.5 getCurrentStep()

```
int com.batteryworkshop.models.RepairReport.getCurrentStep () [inline]
```

Retrieves the current step in the repair process.

Returns

The current repair step as an integer.

5.9.3.6 getEstado()

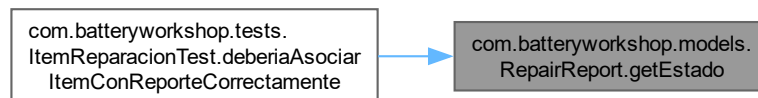
```
String com.batteryworkshop.models.RepairReport.getEstado () [inline]
```

Retrieves the repair status.

Returns

Repair status as a string.

Here is the caller graph for this function:



5.9.3.7 getExtraCost()

```
BigDecimal com.batteryworkshop.models.RepairReport.getExtraCost () [inline]
```

Retrieves the additional costs incurred during the repair.

Returns

Extra costs as a `BigDecimal`.

5.9.3.8 getExtraReason()

```
String com.batteryworkshop.models.RepairReport.getExtraReason () [inline]
```

Retrieves the justification for extra repair costs.

Returns

Reason for extra costs as a string.

5.9.3.9 getId()

```
Long com.batteryworkshop.models.RepairReport.getId () [inline]
```

Retrieves the report ID.

Returns

The unique report identifier as a Long.

5.9.3.10 getItems()

```
List< ItemReparacion > com.batteryworkshop.models.RepairReport.getItems () [inline]
```

Retrieves an immutable view of the list of repair items.

Returns

An unmodifiable list of repair items.

5.9.3.11 getStatus()

```
String com.batteryworkshop.models.RepairReport.getStatus () [inline]
```

Retrieves the repair status.

Returns

The current status of the repair as a string.

5.9.3.12 getTotal()

```
BigDecimal com.batteryworkshop.models.RepairReport.getTotal () [inline]
```

Retrieves the total repair cost.

Returns

Total cost as a BigDecimal.

5.9.3.13 isCustomerApproved()

```
boolean com.batteryworkshop.models.RepairReport.isCustomerApproved () [inline]
```

Checks whether the customer approved the repair process.

Returns

True if customer approved the repair; false otherwise.

5.9.3.14 isQualityOk()

```
static boolean com.batteryworkshop.models.RepairReport.isQualityOk (  
    Battery battery,  
    BigDecimal voltaje,  
    BigDecimal amperaje,  
    boolean carga,  
    boolean descarga) [inline], [static]
```

Verifies the quality of a battery using parameters such as voltage and amperage differences, and charging/discharging statuses.

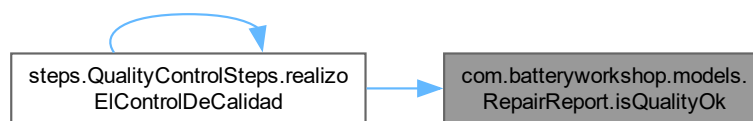
Parameters

<i>battery</i>	The battery to verify.
<i>voltaje</i>	Voltage to compare with battery's voltage.
<i>amperaje</i>	Amperage to compare with battery's amperage.
<i>carga</i>	Expected charging status.
<i>descarga</i>	Expected discharging status.

Returns

True if battery quality meets the defined criteria; false otherwise.

Here is the caller graph for this function:



5.9.3.15 setCancellationReason()

```
void com.batteryworkshop.models.RepairReport.setCancellationReason (
    String reason) [inline]
```

Updates the cancellation reason of the repair.

Parameters

<i>reason</i>	The reason for cancellation.
---------------	------------------------------

5.9.3.16 setCurrentStep()

```
void com.batteryworkshop.models.RepairReport.setCurrentStep (
    int currentStep) [inline]
```

Updates the current step in the repair process.

Parameters

<i>currentStep</i>	New step value to set.
--------------------	------------------------

5.9.3.17 setCustomerApproved()

```
void com.batteryworkshop.models.RepairReport.setCustomerApproved (
    boolean approved) [inline]
```

Updates the customer's approval status.

Parameters

<i>approved</i>	True if customer approved; false otherwise.
-----------------	---

5.9.3.18 setEstado()

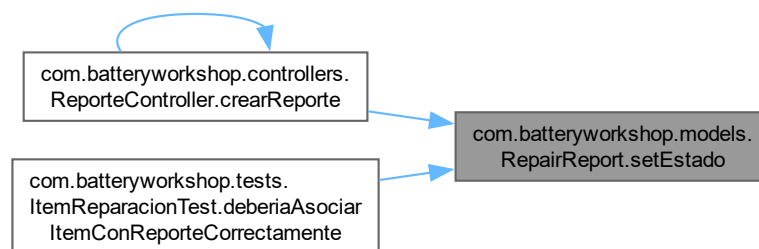
```
void com.batteryworkshop.models.RepairReport.setEstado (
    String newStatus) [inline]
```

Updates the repair status.

Parameters

<i>newStatus</i>	New status value to update.
------------------	-----------------------------

Here is the caller graph for this function:

**5.9.3.19 setExtraCost()**

```
void com.batteryworkshop.models.RepairReport.setExtraCost (
    BigDecimal cost) [inline]
```

Updates the extra cost value for the repair.

Parameters

<i>cost</i>	New extra cost as a BigDecimal.
-------------	---------------------------------

5.9.3.20 setExtraReason()

```
void com.batteryworkshop.models.RepairReport.setExtraReason (
    String reason) [inline]
```

Updates the reason provided for additional repair costs.

Parameters

<i>reason</i>	Reason for extra costs.
---------------	-------------------------

5.9.3.21 setPasoActual()

```
void com.batteryworkshop.models.RepairReport.setPasoActual (  
    int currentStep) [inline]
```

Updates the current step in the repair process.

Parameters

<i>currentStep</i>	New step value to set.
--------------------	------------------------

5.9.3.22 setStatus()

```
void com.batteryworkshop.models.RepairReport.setStatus (  
    String status) [inline]
```

Updates the repair status.

Parameters

<i>status</i>	New status value to set.
---------------	--------------------------

5.9.3.23 setTotal()

```
void com.batteryworkshop.models.RepairReport.setTotal (  
    BigDecimal total) [inline]
```

Updates the total repair cost.

Parameters

<i>total</i>	New total value to set as a BigDecimal.
--------------	---

5.9.3.24 TotalCalculator()

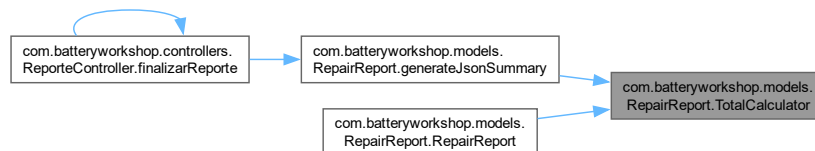
```
BigDecimal com.batteryworkshop.models.RepairReport.TotalCalculator () [inline]
```

Calculates total repair cost by adding battery base cost, repair items cost, and extra costs if any.

Returns

Total cost of the repair work in euros.

Here is the caller graph for this function:

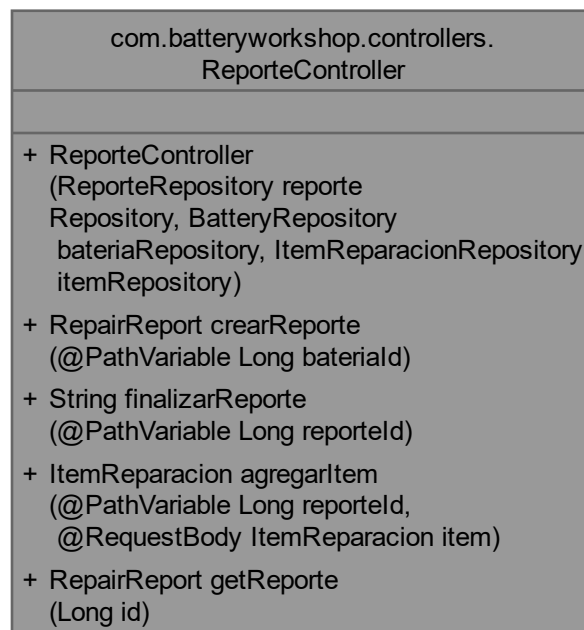


The documentation for this class was generated from the following file:

- src/main/java/com/batteryworkshop/models/RepairReport.java

5.10 com.batteryworkshop.controllers.ReporteController Class Reference

Collaboration diagram for com.batteryworkshop.controllers.ReporteController:



Public Member Functions

- [ReporteController](#) ([ReporteRepository](#) reporteRepository, [BatteryRepository](#) bateriaRepository, [ItemReparacionRepository](#) itemRepository)
- [RepairReport](#) [crearReporte](#) (@PathVariable Long bateriaId)
- String [finalizarReporte](#) (@PathVariable Long reportId)
- [ItemReparacion](#) [agregarItem](#) (@PathVariable Long reportId, @RequestBody [ItemReparacion](#) item)
- [RepairReport](#) [getReporte](#) (Long id)

5.10.1 Detailed Description

Controller class for managing repair reports

5.10.2 Constructor & Destructor Documentation

5.10.2.1 ReporteController()

```
com.batteryworkshop.controllers.ReporteController.ReporteController (
    ReporteRepository reporteRepository,
    BatteryRepository bateriaRepository,
    ItemReparacionRepository itemRepository) [inline]
```

Constructor for [ReporteController](#)

Parameters

<i>reporteRepository</i>	Repository for repair reports
<i>bateriaRepository</i>	Repository for batteries
<i>itemRepository</i>	Repository for repair items

5.10.3 Member Function Documentation

5.10.3.1 agregarItem()

```
ItemReparacion com.batteryworkshop.controllers.ReporteController.agregarItem (
    @PathVariable Long reporteId,
    @RequestBody ItemReparacion item) [inline]
```

Adds a repair item to a report

Parameters

<i>reporteId</i>	ID of the report
<i>item</i>	Repair item to add

Returns

The saved repair item

Exceptions

<i>NoSuchElementException</i>	if report is not found
-------------------------------	------------------------

Here is the call graph for this function:



Here is the caller graph for this function:



5.10.3.2 crearReporte()

```
RepairReport com.batteryworkshop.controllers.ReportController.crearReporte (
    @PathVariable Long bateriaId) [inline]
```

Creates a new repair report for a battery

Parameters

<i>bateriaId</i>	ID of the battery
------------------	-------------------

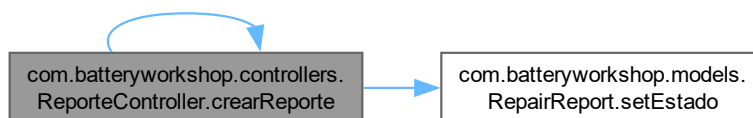
Returns

The created repair report

Exceptions

<i>NoSuchElementException</i>	if battery is not found
-------------------------------	-------------------------

Here is the call graph for this function:



Here is the caller graph for this function:



5.10.3.3 finalizarReporte()

```
String com.batteryworkshop.controllers.ReporteController.finalizarReporte (  
    @PathVariable Long reporteId) [inline]
```

Finalizes a repair report

Parameters

<i>reporteId</i>	ID of the report to finalize
------------------	------------------------------

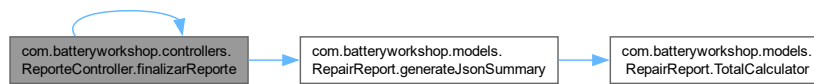
Returns

JSON summary of the finalized report

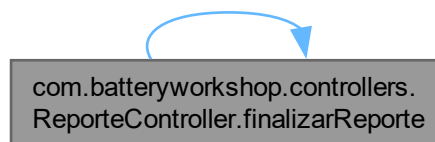
Exceptions

<i>NoSuchElementException</i>	if report is not found
-------------------------------	------------------------

Here is the call graph for this function:



Here is the caller graph for this function:

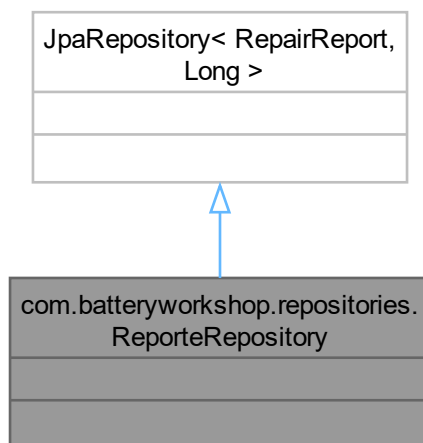


The documentation for this class was generated from the following file:

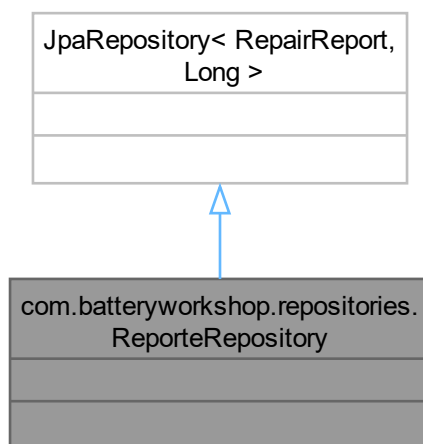
- `src/main/java/com/batteryworkshop/controllers/ReporteController.java`

5.11 com.batteryworkshop.repositories.ReporteRepository Interface Reference

Inheritance diagram for com.batteryworkshop.repositories.ReporteRepository:



Collaboration diagram for com.batteryworkshop.repositories.ReporteRepository:



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

- `src/main/java/com/batteryworkshop/repositories/ReporteRepository.java`

5.12 com.batteryworkshop.tests.ReportTest Class Reference

Collaboration diagram for com.batteryworkshop.tests.ReportTest:

com.batteryworkshop.tests. ReportTest
<ul style="list-style-type: none">~ void setUp()~ void testCreacionReporteBasico()~ void testActualizacionEstado()~ void testCalculoCosteTotal()~ void testValidacionCostesNegativos()~ void testValidacionPasosInvalidos()~ void testGeneracionJson()

5.12.1 Detailed Description

Pruebas unitarias para la clase [RepairReport](#). Verifica el correcto funcionamiento de la creación y gestión de reportes de reparación.

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

- src/test/java/com/batteryworkshop/tests/ReportTest.java

5.13 runners.RunCucumberTest Class Reference

Collaboration diagram for runners.RunCucumberTest:

runners.RunCucumberTest

5.13.1 Detailed Description

Test runner for Cucumber tests.

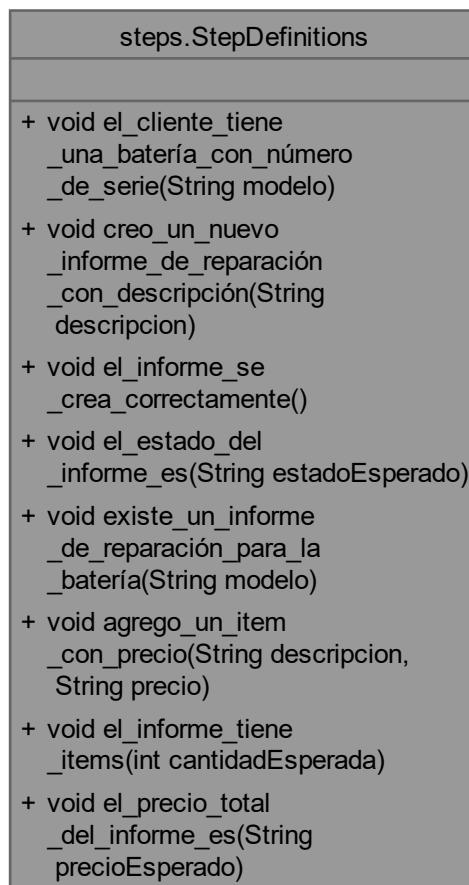
This test runner is configured to use the JUnit Platform and the Cucumber engine. It looks for feature files located in the "features" directory on the classpath and defines the glue code location and reporting format.

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

- src/test/java/runners/RunCucumberTest.java

5.14 steps.StepDefinitions Class Reference

Collaboration diagram for steps.StepDefinitions:



Public Member Functions

- void [el_cliente_tiene_una_batería_con_número_de_serie](#) (String modelo)
- void [creo_un_nuevo_informe_de_reparación_con_descripción](#) (String descripcion)
- void [el_informe_se_crea_correctamente](#) ()
- void [el_estado_del_informe_es](#) (String estadoEsperado)
- void [existe_un_informe_de_reparación_para_la_batería](#) (String modelo)
- void [agrego_un_item_con_precio](#) (String descripcion, String precio)
- void [el_informe_tiene_items](#) (int cantidadEsperada)
- void [el_precio_total_del_informe_es](#) (String precioEsperado)

5.14.1 Detailed Description

Class containing step definitions for Cucumber tests related to battery repair reports.

5.14.2 Member Function Documentation

5.14.2.1 [agrego_un_item_con_precio\(\)](#)

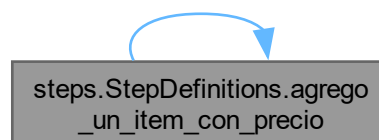
```
void steps.StepDefinitions.agrego_un_item_con_precio (
    String descripcion,
    String precio) [inline]
```

Adds an item with a description and price to the repair report.

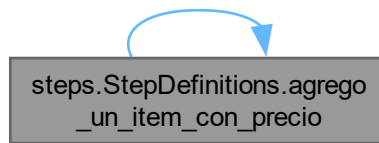
Parameters

<i>descripcion</i>	Description of the item.
<i>precio</i>	Price of the item in string format.

Here is the call graph for this function:



Here is the caller graph for this function:



5.14.2.2 `creo_un_nuevo_informe_de_reparación_con_descripción()`

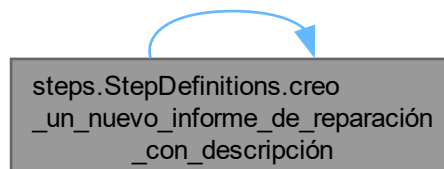
```
void steps.StepDefinitions.creo_un_nuevo_informe_de_reparación_con_descripción (  
    String descripcion) [inline]
```

Creates a new repair report with a description.

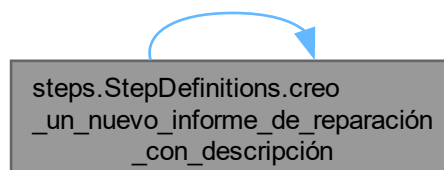
Parameters

<i>descripcion</i>	Description of the repair report.
--------------------	-----------------------------------

Here is the call graph for this function:



Here is the caller graph for this function:



5.14.2.3 el_cliente_tiene_una_batería_con_número_de_serie()

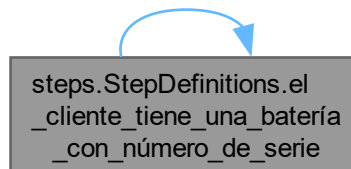
```
void steps.StepDefinitions.el_cliente_tiene_una_batería_con_número_de_serie (  
    String modelo) [inline]
```

Registers a client with a battery model and a fixed base cost.

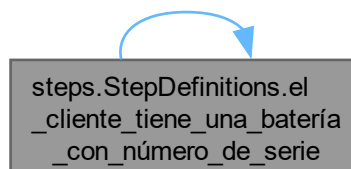
Parameters

<i>modelo</i>	Battery model provided by the client.
---------------	---------------------------------------

Here is the call graph for this function:



Here is the caller graph for this function:



5.14.2.4 el_estado_del_informe_es()

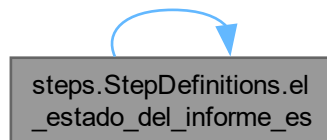
```
void steps.StepDefinitions.el_estado_del_informe_es (  
    String estadoEsperado) [inline]
```

Validates the status of the repair report.

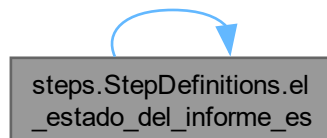
Parameters

<i>estadoEsperado</i>	Expected status of the repair report.
-----------------------	---------------------------------------

Here is the call graph for this function:



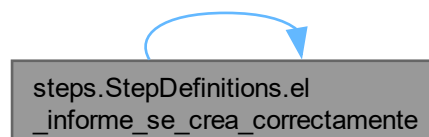
Here is the caller graph for this function:



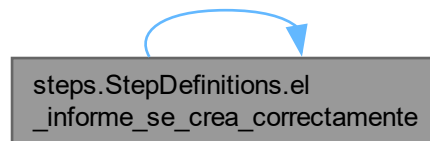
5.14.2.5 el_informe_se_crea_correctamente()

```
void steps.StepDefinitions.el_informe_se_crea_correctamente () [inline]
```

Verifies that the repair report is created correctly. Here is the call graph for this function:



Here is the caller graph for this function:



5.14.2.6 `el_informe_tiene_items()`

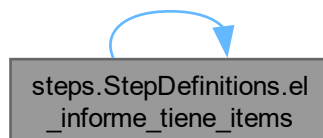
```
void steps.StepDefinitions.el_informe_tiene_items (  
    int cantidadEsperada) [inline]
```

Validates the number of items in the repair report.

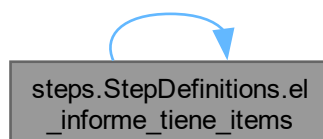
Parameters

<i>cantidadEsperada</i>	Expected number of items in the report.
-------------------------	---

Here is the call graph for this function:



Here is the caller graph for this function:



5.14.2.7 el_precio_total_del_informe_es()

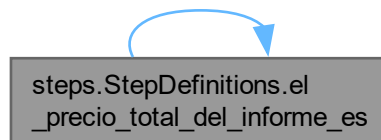
```
void steps.StepDefinitions.el_precio_total_del_informe_es (  
    String precioEsperado) [inline]
```

Validates the total price of the repair report.

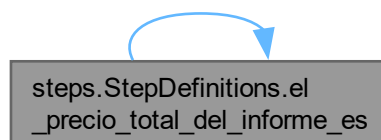
Parameters

<i>precioEsperado</i>	Expected total price of the repair report.
-----------------------	--

Here is the call graph for this function:



Here is the caller graph for this function:



5.14.2.8 existe_un_informe_de_reparación_para_la_batería()

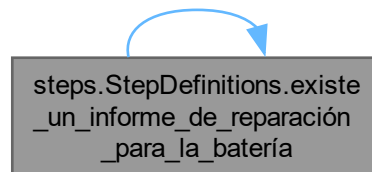
```
void steps.StepDefinitions.existe_un_informe_de_reparación_para_la_batería (  
    String modelo) [inline]
```

Creates a repair report for a specific battery model.

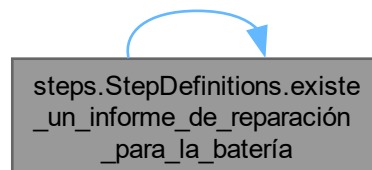
Parameters

<i>modelo</i>	Model of the battery for which the repair report is created.
---------------	--

Here is the call graph for this function:



Here is the caller graph for this function:



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

- `src/test/java/steps/StepDefinitions.java`