

HatPluginMySql

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English version

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Description

HatPluginMySql

HatPluginMySql - a plugin for the Hat browser that allows you to perform automated testing of data in a MySQL database.

System requirements:

the plugin is compatible with the Hat browser starting from version 1.4

The official page: <https://somovstudio.github.io/>

Download the app from GitHub: <https://github.com/SomovStudio/Hat>

The version of this documentation corresponds to the browser version 1.5.0.3 (update 03/27/2026)

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Plugins

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HatPluginMySql

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Installing the plugin

Installing the plugin HatPluginMySql

1. Download and install the browser **Hat**

link: <https://github.com/SomovStudio/Hat/releases>

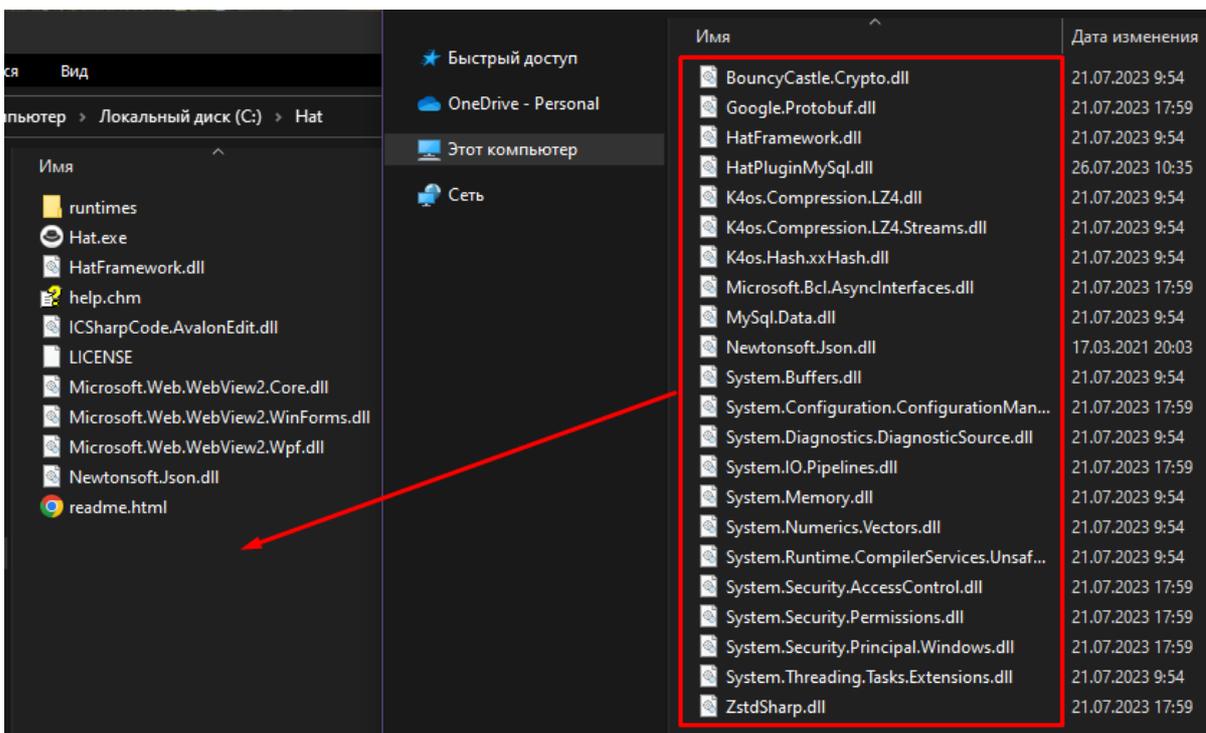
2. Download the plugin **HatPluginMySql**

link: <https://github.com/SomovStudio/HatPluginMySql/releases>

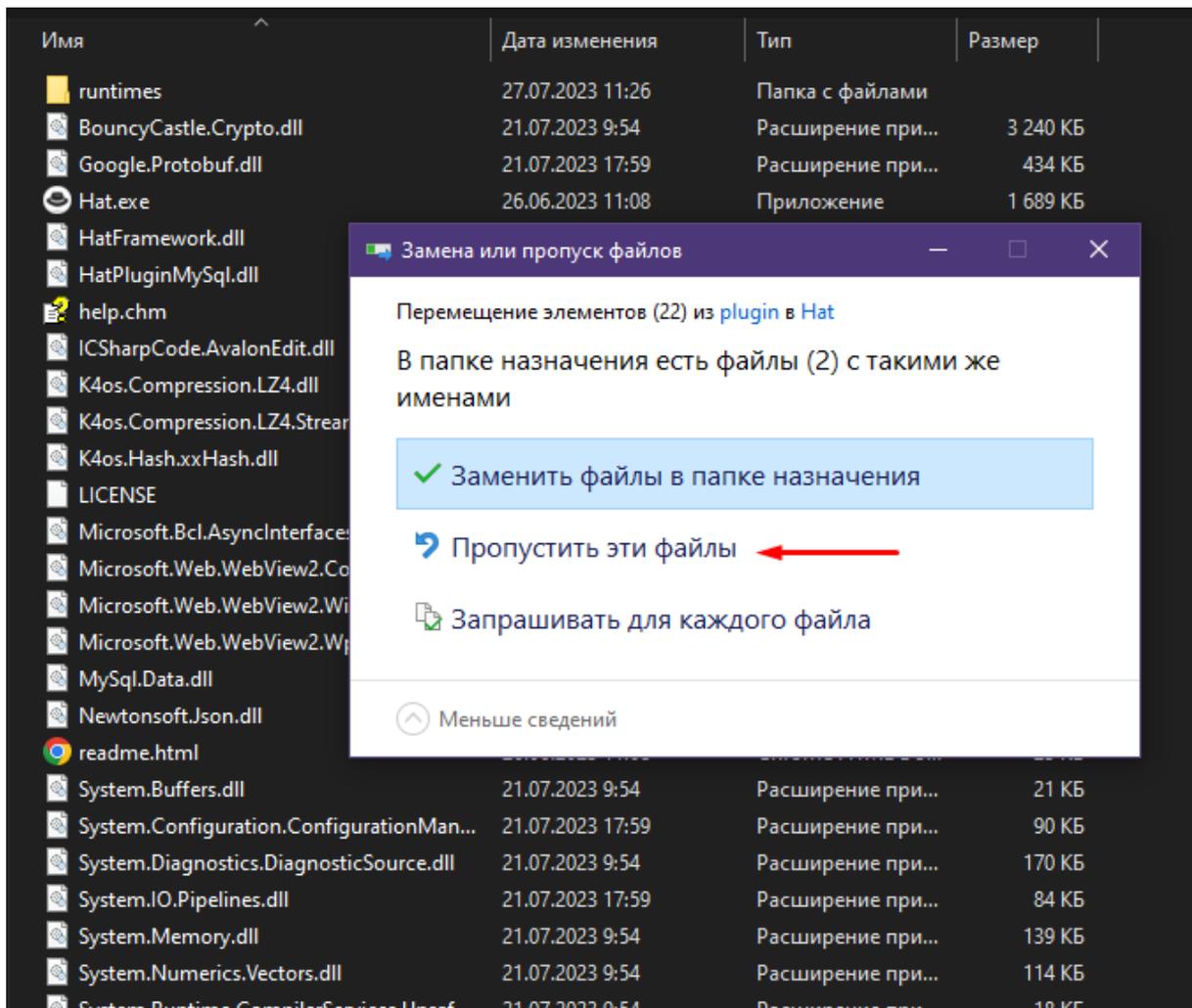
3. Unpack the archive **HatPluginMySql-1.0.0.zip**

Имя	Дата изменения	Тип	Размер
plugin	26.07.2023 10:45	Папка с файлами	
LICENSE	18.07.2023 11:34	Файл	18 КБ
Readme.txt	26.07.2023 10:46	Файл "ТХТ"	1 КБ

4. Copy the contents of the **plugin** folder to the root of the **Hat** browser folder



When copying, you may be asked about replacing existing files. In this case, it is recommended to select "Skip these files".



As a result, the following files should be in the root of the folder

Имя	Дата изменения	Тип	Размер
runtimes	27.07.2023 11:26	Папка с файлами	
BouncyCastle.Crypto.dll	21.07.2023 9:54	Расширение при...	3 240 КБ
Google.Protobuf.dll	21.07.2023 17:59	Расширение при...	434 КБ
Hat.exe	26.06.2023 11:08	Приложение	1 689 КБ
HatFramework.dll	26.06.2023 11:06	Расширение при...	325 КБ
HatPluginMySql.dll	26.07.2023 10:35	Расширение при...	26 КБ
help.chm	26.06.2023 11:28	Скомпилирован...	3 308 КБ
ICSharpCode.AvalonEdit.dll	03.04.2023 9:54	Расширение при...	606 КБ
K4os.Compression.LZ4.dll	21.07.2023 9:54	Расширение при...	66 КБ
K4os.Compression.LZ4.Streams.dll	21.07.2023 9:54	Расширение при...	73 КБ
K4os.Hash.xxHash.dll	21.07.2023 9:54	Расширение при...	13 КБ
LICENSE	28.02.2023 14:56	Файл	2 КБ
Microsoft.Bcl.AsyncInterfaces.dll	21.07.2023 17:59	Расширение при...	27 КБ
Microsoft.Web.WebView2.Core.dll	28.05.2023 11:30	Расширение при...	462 КБ
Microsoft.Web.WebView2.WinForms.dll	28.05.2023 11:30	Расширение при...	38 КБ
Microsoft.Web.WebView2.Wpf.dll	28.05.2023 11:30	Расширение при...	44 КБ
MySql.Data.dll	21.07.2023 9:54	Расширение при...	1 144 КБ
Newtonsoft.Json.dll	16.03.2023 13:00	Расширение при...	696 КБ
readme.html	26.06.2023 11:08	Chrome HTML Do...	25 КБ
System Buffers.dll	21.07.2023 9:54	Расширение при...	21 КБ
System.Configuration.ConfigurationMan...	21.07.2023 17:59	Расширение при...	90 КБ
System.Diagnostics.DiagnosticSource.dll	21.07.2023 9:54	Расширение при...	170 КБ
System.IO.Pipelines.dll	21.07.2023 17:59	Расширение при...	84 КБ
System.Memory.dll	21.07.2023 9:54	Расширение при...	139 КБ
System.Numerics.Vectors.dll	21.07.2023 9:54	Расширение при...	114 КБ
System.Runtime.CompilerServices.Unsaf...	21.07.2023 9:54	Расширение при...	18 КБ
System.Security.AccessControl.dll	21.07.2023 17:59	Расширение при...	36 КБ
System.Security.Permissions.dll	21.07.2023 17:59	Расширение при...	30 КБ
System.Security.Principal.Windows.dll	21.07.2023 17:59	Расширение при...	18 КБ
System.Threading.Tasks.Extensions.dll	21.07.2023 9:54	Расширение при...	26 КБ
ZstdSharp.dll	21.07.2023 17:59	Расширение при...	427 КБ

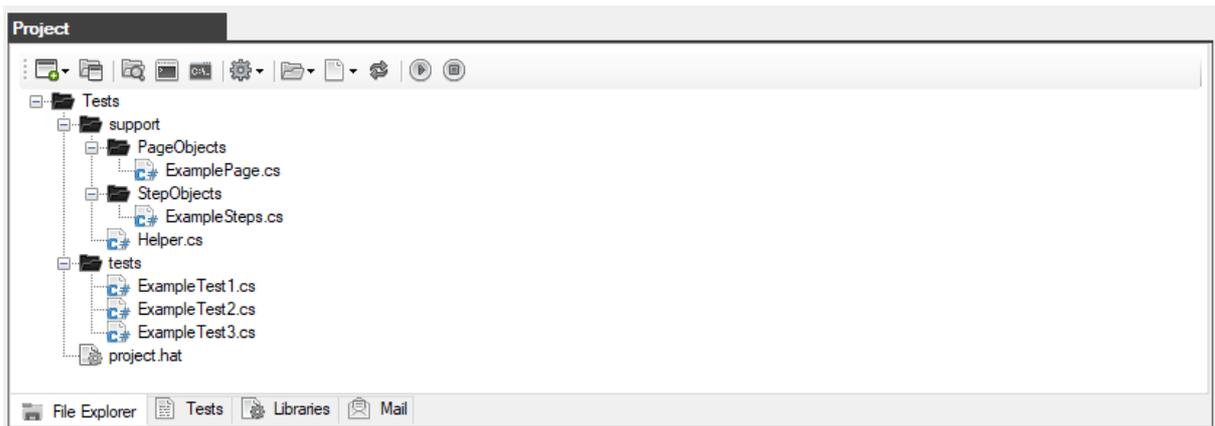
This completes the installation of the plugin!

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Connecting the plugin to the project

Connecting the HatPluginMySql plugin to the autotest project

1. Launch the browser **Hat**
2. Create a new project or open an existing project



3. Go to the Libraries tab and enter the name of one file at the end of the list
HatPluginMySql.dll



4. Click the "Save" button.

This completes the plug-in connection to the project

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[An example of an autotest](#)

An example of an autotest

After the plugin has been installed and connected to the project, let's consider a simple autotest.

We have created a simple database in MySQL named **test_db**
There is one **test_table** table in this database with the fields: **id**, **name**, **age**, **post**

The screenshot shows the phpMyAdmin interface. On the left, the database structure is visible, including 'test_db' and 'test_table'. The main area displays a successful query: 'SELECT * FROM `test_table`'. Below the query, there are controls for 'Показать все' (Show all), 'Количество строк' (Number of rows) set to 25, and 'Фильтровать строки' (Filter rows). A table of results is shown with columns 'id', 'name', 'age', and 'post'.

	id	name	age	post
<input type="checkbox"/>	1	John	30	Driver
<input type="checkbox"/>	2	Dave	35	Manager
<input type="checkbox"/>	3	Paul	45	Director

Now let's describe a simple autotest that will add, modify and delete data in the database while checking the correctness of the results.

```

: ExampleTest3.cs

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Windows.Forms;
using System.Threading;
using System.Threading.Tasks;
using System.IO;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Text.RegularExpressions;
using System.Net;
using System.Net.Http;
using System.Net.Http.Headers;
using System.Reflection;
using Newtonsoft.Json;
using HatFramework;
using HatPluginMySql;

namespace Hat
{
    public class ExampleTest3
    {
        Tester tester;

        public async void Main(Form browserWindow)
        {
            tester = new Tester(browserWindow);
        }
    }
}

```

```

        await setUp();
        await test();
        await tearDown();
    }

    public async Task setUp()
    {
        tester.Description("Test #3 checking the
database");
        await tester.BrowserFullScreenAsync();
    }

    public async Task test()
    {
        DataTable dataTable;
        List<List<string>> entries = new
List<List<string>>();
        TesterMySql testerMySql =
TesterMySql(tester);

        await tester.TestBeginAsync();

        await
testerMySql.ConnectionOpenAsync
("server=127.0.0.1;uid=root;pwd=;database=test_db");

        int count = await
testerMySql.GetCountEntriesAsync("SELECT * FROM test_table");
        if (count > 0)
        {
            await =
testerMySql.GetEntriesAsync("SELECT * FROM test_table");
            dataTable =
testerMySql.GetDataTableAsync("SELECT * FROM test_table");
            foreach (DataRow row in dataTable.Rows)
                foreach (DataColumn col in
dataTable.Columns)
                    tester.ConsoleMsg(row[col].ToString()
);
        }

        await testerMySql.SetEntryAsync("INSERT INTO
test_table VALUES(NULL, 'I am Tester', 100, 'My post QA')");
        bool result = await
testerMySql.FindEntryAsync("test_table", "name", "'I am
Tester'");
        await
testerMySql.AssertHaveInTableAsync("test_table", "name", "'I
am Tester'");
    }

```

```

        entries = await
testerMySql.GetEntriesFromTableAsync("test_table");
        if (entries != null){
            foreach(List<string> entry in entries)
                foreach(string value in entry)
                    tester.ConsoleMsg(value);
        }

        await testerMySql.EditEntryAsync("UPDATE
test_table SET age = 111 WHERE name = 'I am Tester'");
        result = await
testerMySql.FindEntryAsync("test_table", "age", "111");
        await
testerMySql.AssertHaveInTableAsync("test_table", "age",
"111");

        await testerMySql.RemoveEntryAsync("DELETE FROM
test_table WHERE name = 'I am Tester'");
        result = await
testerMySql.FindEntryAsync("test_table", "name", "'I am
Tester'");
        await
testerMySql.AssertDontHaveInTableAsync("test_table", "name",
"'I am Tester'");

        await testerMySql.ConnectionCloseAsync();

        await tester.TestEndAsync();
    }

    public async Task tearDown()
    {
        // await tester.BrowserCloseAsync();
    }
}
}

```

Please note that for the autotests to work correctly, you need to connect the library

```
using HatPluginMySql;
```

First, there is a connection to the database

```

TesterMySql testerMySql = new TesterMySql(tester);
await
testerMySql.ConnectionOpenAsync
("server=127.0.0.1;uid=root;pwd=;database=test_db");

```

Data manipulation is performed using different methods

```
await testerMySql.GetCountEntriesAsync("SELECT * FROM
```

```

test_table");
await testerMySql.GetEntriesAsync("SELECT * FROM
test_table");
await testerMySql.GetEntriesFromTableAsync("test_table");
await testerMySql.GetDataTableAsync("SELECT * FROM
test_table");
await testerMySql.SetEntryAsync("INSERT INTO test_table
VALUES(NULL, 'I am Tester', 100, 'My post QA')");
await testerMySql.FindEntryAsync("test_table", "name", "'I
am Tester'");
await testerMySql.EditEntryAsync("UPDATE test_table SET age
= 111 WHERE name = 'I am Tester'");
await testerMySql.RemoveEntryAsync("DELETE FROM test_table
WHERE name = 'I am Tester'");

```

Special methods for checking the presence or absence of data in the database

```

await testerMySql.AssertHaveInTableAsync("test_table",
"name", "'I am Tester'");
await testerMySql.AssertDontHaveInTableAsync("test_table",
"name", "'I am Tester'")

```

At the end, the work with the database is completed by closing the connection to it

```

await testerMySql.ConnectionCloseAsync();

```

Let's run the autotest and look at the progress of the check and the result

Действие	Статус	Комментарий
Сообщение	В процессе	Запуск автотеста
Сообщение	В процессе	Запущен автотест из файла: ExampleTest3.cs
BrowserFullScreenAsync()	Выполнено	Размер браузера изменён
Тестирование началось	Выполнено	Инициализация теста
Инициализация теста	Выполнено	Выполнена инициализация теста
ConnectionOpenAsync("server=127.0.0.1;uid=root;pwd=database=test_db")	В процессе	Подключение к базе данных и открытие соединения
ConnectionOpenAsync("server=127.0.0.1;uid=root;pwd=database=test_db")	Успешно	Подключение к базе данных открыто
GetCountEntriesAsync("SELECT * FROM test_table")	Успешно	В таблице 3 записей
GetEntriesAsync("SELECT * FROM test_table")	Успешно	Получены записи из таблицы
GetDataTableAsync("SELECT * FROM test_table")	Успешно	Получена таблица записей
SetEntryAsync("INSERT INTO test_table VALUES(NULL, 'I am Tester', 100, 'My post QA')")	Успешно	Данные успешно добавлены в базу данных
FindEntryAsync("test_table", "name", "'I am Tester'")	Выполнено	В таблице test_table присутствует запись со значением 'I am Tester' в колонке name
AssertHaveInTableAsync("test_table", "name", "'I am Tester'")	Успешно	В таблице test_table присутствует запись со значением 'I am Tester' в колонке name
GetEntriesFromTableAsync("test_table")	Успешно	Получены все записи из таблицы 'test_table'
EditEntryAsync("UPDATE test_table SET age = 111 WHERE name = 'I am Tester'")	Успешно	Данные успешно обновлены в базу данных
FindEntryAsync("test_table", "age", "'111'")	Выполнено	В таблице test_table присутствует запись со значением 111 в колонке age
AssertHaveInTableAsync("test_table", "age", "'111'")	Успешно	В таблице test_table присутствует запись со значением 111 в колонке age
RemoveEntryAsync("DELETE FROM test_table WHERE name = 'I am Tester'")	Успешно	Данные успешно удалены из базы данных
FindEntryAsync("test_table", "name", "'I am Tester'")	Выполнено	В таблице test_table в колонке name нет записи со значением 'I am Tester'
AssertDontHaveInTableAsync("test_table", "name", "'I am Tester'")	Успешно	В таблице test_table в колонке name нет записи со значением 'I am Tester'
ConnectionCloseAsync()	Успешно	Подключение к базе данных закрыто
Тестирование завершено	Успешно	Тест завершен - все шаги выполнены успешно

All actions were completed, all checks were successful.

The test was completed successfully.

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Class: TesterMySql

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Constructor

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TesterMySql

TesterMySql

Description: the main class of working with a MySQL database

Syntax: TesterMySql(Tester tester)

Example:

```
Tester tester = new Tester(browserWindow);
```

```
TesterMySql testerMySql = new TesterMySql(tester);
```

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Methods

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ConnectionOpenAsync

ConnectionOpenAsync

Description: the method opens a connection to the MySQL database

Syntax: ConnectionOpenAsync(string connectionString)

Return value: no return value

Example:

```
await testerMySql.ConnectionOpenAsync("server=127.0.0.1;uid=root;pwd=;database=test_db");
```

ConnectionCloseAsync

ConnectionCloseAsync

Description: the method closes the connection to the MySQL database

Syntax: ConnectionCloseAsync()

Return value: no return value

Example:

```
await testerMySql.ConnectionCloseAsync();
```

GetCountEntriesAsync

GetCountEntriesAsync

Description: the method returns the number of records in the table after executing the query

Syntax: GetCountEntriesAsync(string sqlQuerySelect)

Return value: int

Example:

```
int count = await testerMySql.GetCountEntriesAsync("SELECT * FROM test_table");
```

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GetEntriesAsync

GetEntriesAsync

Description: the method returns a list of records from the table after executing the query

Syntax: GetEntriesAsync(string sqlQuerySelect)

Return value: List

Example:

```
List<List<string>> entries = new List<List<string>>();  
entries = await testerMySql.GetEntriesAsync("SELECT * FROM test_table");
```

```
foreach(List<string> entry in entries)  
    foreach(string value in entry)  
        tester.ConsoleMsg(value);
```

GetEntriesFromTableAsync

GetEntriesFromTableAsync

Description: the method returns a list of records from the specified database table

Syntax: GetEntriesFromTableAsync(string tableName)

Return value: List

Example:

```
List<List<string>> entries = new List<List<string>>();  
entries = await testerMySql.GetEntriesFromTableAsync("test_table");
```

```
foreach(List<string> entry in entries)  
    foreach(string value in entry)  
        tester.ConsoleMsg(value);
```

GetDataTableAsync

GetDataTableAsync

Description: the method returns a table of records from the database table after executing the query

Syntax: GetDataTableAsync(string sqlQuerySelect)

Return value: DataTable

Example:

```
DataTable dataTable = null;
```

```
dataTable = await testerMySql.GetDataTableAsync("SELECT * FROM test_table");
```

```
foreach (DataRow row in dataTable.Rows)
```

```
    foreach (DataColumn col in dataTable.Columns)
```

```
        tester.ConsoleMsg(row[col].ToString());
```

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SetEntryAsync

SetEntryAsync

Description: the method executes a query that adds data to the database table and returns the record number

Syntax: SetEntryAsync(string sqlQueryInsert)

Return value: int

Example:

```
int result = await testerMySql.SetEntryAsync("INSERT INTO test_table VALUES(NULL, 'I am Tester', 100, 'My post QA');");
```

EditEntryAsync

EditEntryAsync

Description: the method executes a query that modifies the data in the database table and returns the record number

Syntax: EditEntryAsync(string sqlQuertUpdate)

Return value: int

Example:

```
int result = await testerMySql.EditEntryAsync("UPDATE test_table SET age = 111 WHERE name = 'I am Tester'");
```

RemoveEntryAsync

RemoveEntryAsync

Description: the method executes a query that deletes the data in the database table and returns the record number

Syntax: RemoveEntryAsync(string sqlQueryDelete)

Return value: int

Example:

```
int result = await testerMySql.RemoveEntryAsync("DELETE FROM test_table WHERE name = 'I am Tester'");
```

FindEntryAsync

FindEntryAsync

Description: the method searches for data in the specified database table and returns the boolean value of the search result

Syntax: FindEntryAsync(string tableName, string columnName, string value)

Return value: bool (true or false)

Example:

```
bool result = await testerMySql.FindEntryAsync("test_table", "name", "I am Tester");
```

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AssertHaveInTableAsync

AssertHaveInTableAsync

Description: the method checks the data in the specified database table and returns the boolean value of the search result, in case of a negative result, the check will be considered a failure

Syntax: AssertHaveInTableAsync(string tableName, string columnName, string value)

Return value: bool (true or false)

Example:

```
bool result = await testerMySql.AssertHaveInTableAsync("test_table", "name", "I am Tester");
```

AssertDontHaveInTableAsync

AssertDontHaveInTableAsync

Description: the method checks the data in the specified database table and returns the boolean value of the search result, in case of a positive result, the check will be considered a failure

Syntax: AssertDontHaveInTableAsync(string tableName, string columnName, string value)

Return value: bool (true or false)

Example:

```
bool result = await testerMySql.AssertDontHaveInTableAsync("test_table", "name", "I am Tester");
```