

1o | Mobile REST *Summit*


Migration

Sua estrutura de banco sempre atualizada

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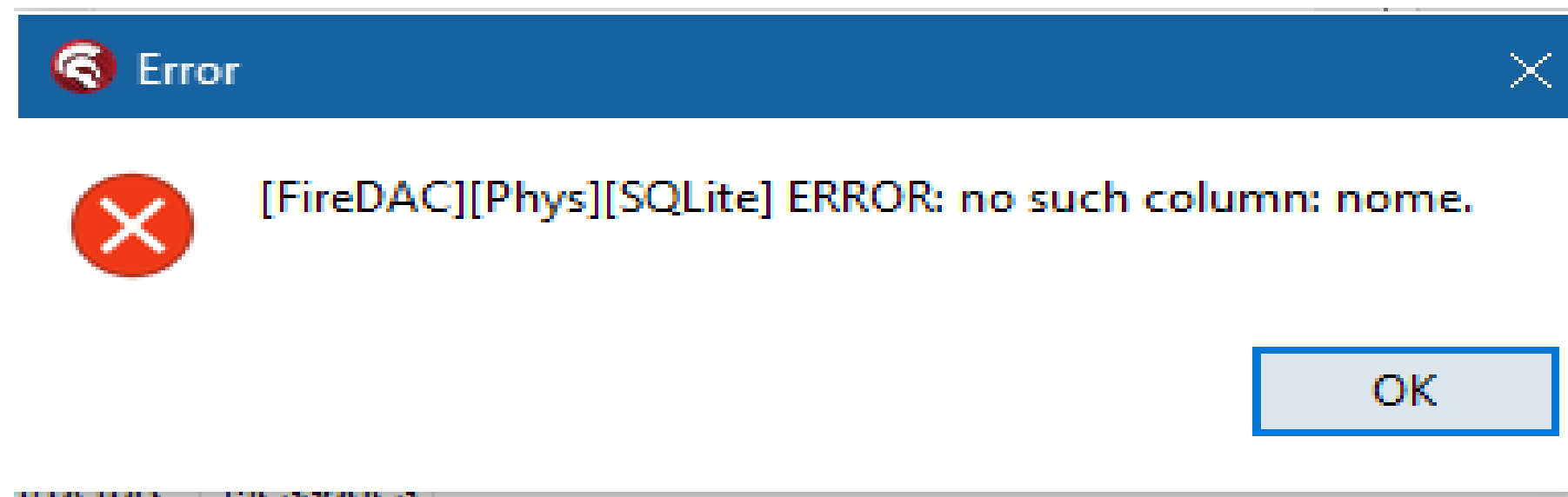
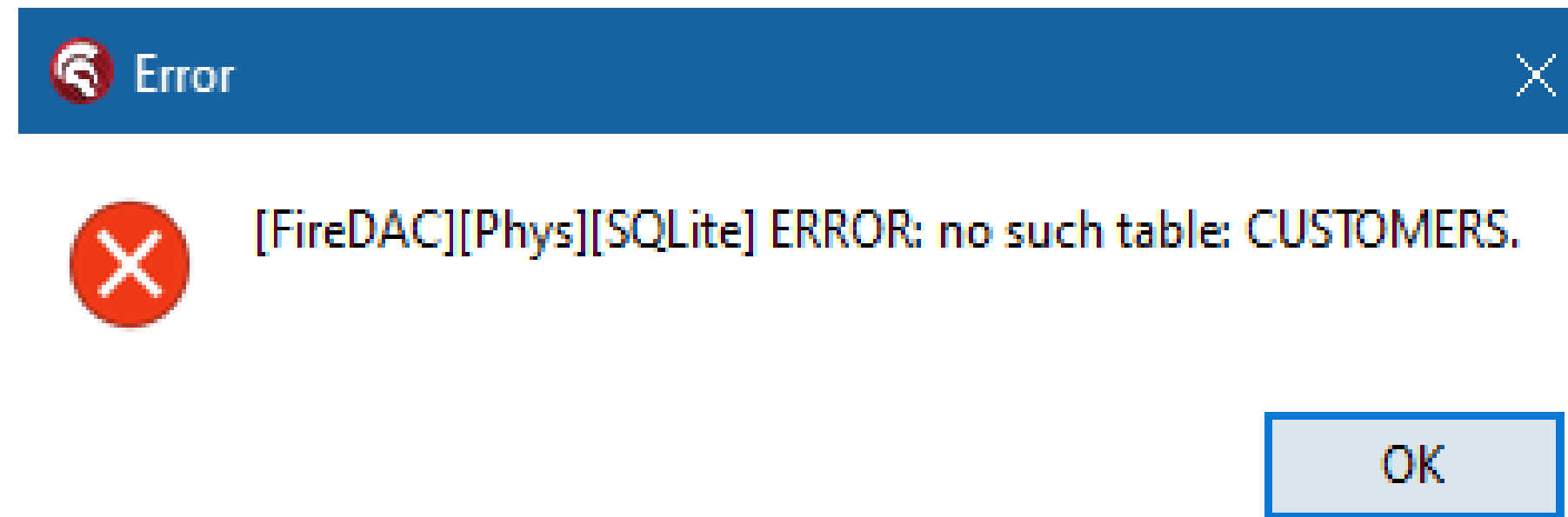
 linkedin.com/in/gabrielbaltazar-dev/



Migration?

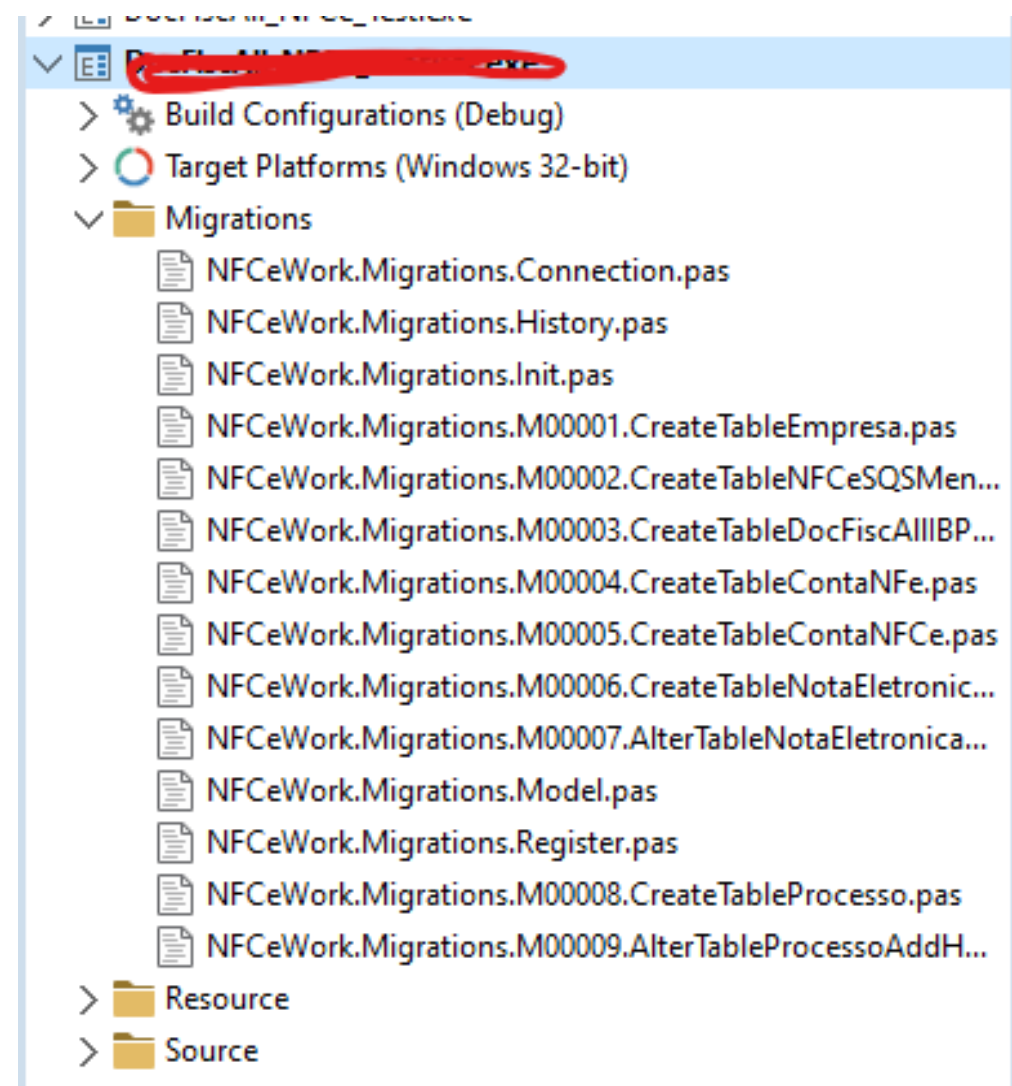
- **Schema Migration**
- **Database Migration**
- **Migration**

Por que usar?



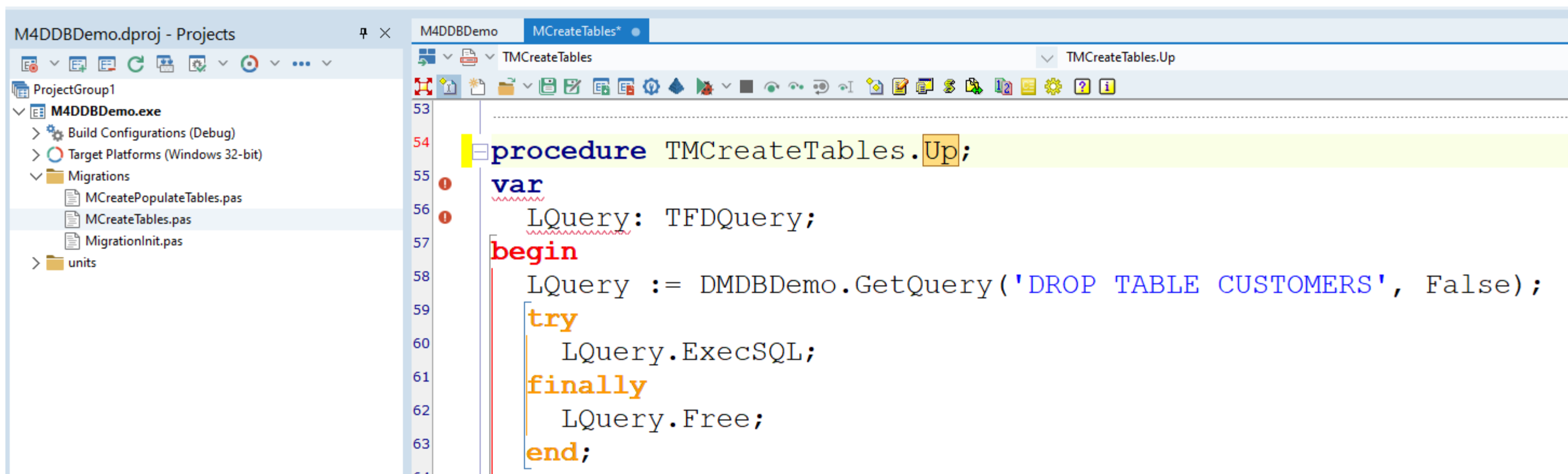
Vantagens?

- Melhor integração entre os times
- Histórico de atualização
- Rollback de versão
- Organização
- Livre de componentes e de banco de dados



Desvantagens?

- Exige mais criticidade ao subir um commit no projeto.



```
53  
54 procedure TCreateTables.Up;  
55 var  
56     LQuery: TFDQuery;  
57 begin  
58     LQuery := DMDBDemo.GetQuery('DROP TABLE CUSTOMERS', False);  
59     try  
60         LQuery.ExecSQL;  
61     finally  
62         LQuery.Free;  
63     end;  
64
```

Migrations - Frameworks

Top database migration tools



Flyway



Liquibase



TypeORM



Knex.js



Hibernate



Sequelize



M4D

M4D?

migration4d / m4d — Bitbucket

bitbucket.org/migration4d/m4d/src/master/

Bitbucket

Pull requests

Repositories

Projects

</> m4d

</> Source

Commits

Branches

Pull requests

Pipelines

Deployments

Issues

Jira issues

Security

Edgar Borges Pavão / Untitled project

m4d

This is the repository of the migration library for Delphi.

master

Files

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Name

DBDemo

Demo

Docs

FMXDemo

gabrielbaltazar/m4d

github.com/gabrielbaltazar/m4d

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About

SP01\gabriel.baltazar Merge branch 'release/1.0.5' 794eca5 yesterday 63 commits

DBDemo	Samples Refactor	yesterday
Demo	Samples Refactor	yesterday
Docs	Update DBDemo project with better informations of the migrations, sto...	5 years ago
FMXDemo	Compare with datetime	3 years ago
Test	Compare with datetime	3 years ago
Wizard	Updating the resource file of the wizard tool.	5 years ago
units	Samples Refactor	yesterday
.gitignore	Updating the git ignore file.	5 years ago
M4D.groupproj	Added demonstration project of using M4D for Firemonkey.	6 years ago
M4DProject.dpr	Update DBDemo project with better informations of the migrations, sto...	5 years ago
M4DProject.dproj	Compare with datetime	3 years ago
M4DProject.res	Change of nomenclature to meet market standards.	6 years ago
README.md	Update the readmefile with the learning videos	5 years ago
boss-lock.json	enable boss	3 years ago
boss.json	enable boss	3 years ago

About

No description, website, or topics provided.

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Activity

2 stars

1 watching

1 fork

Releases

6 tags

Create a new release

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Contributors 2

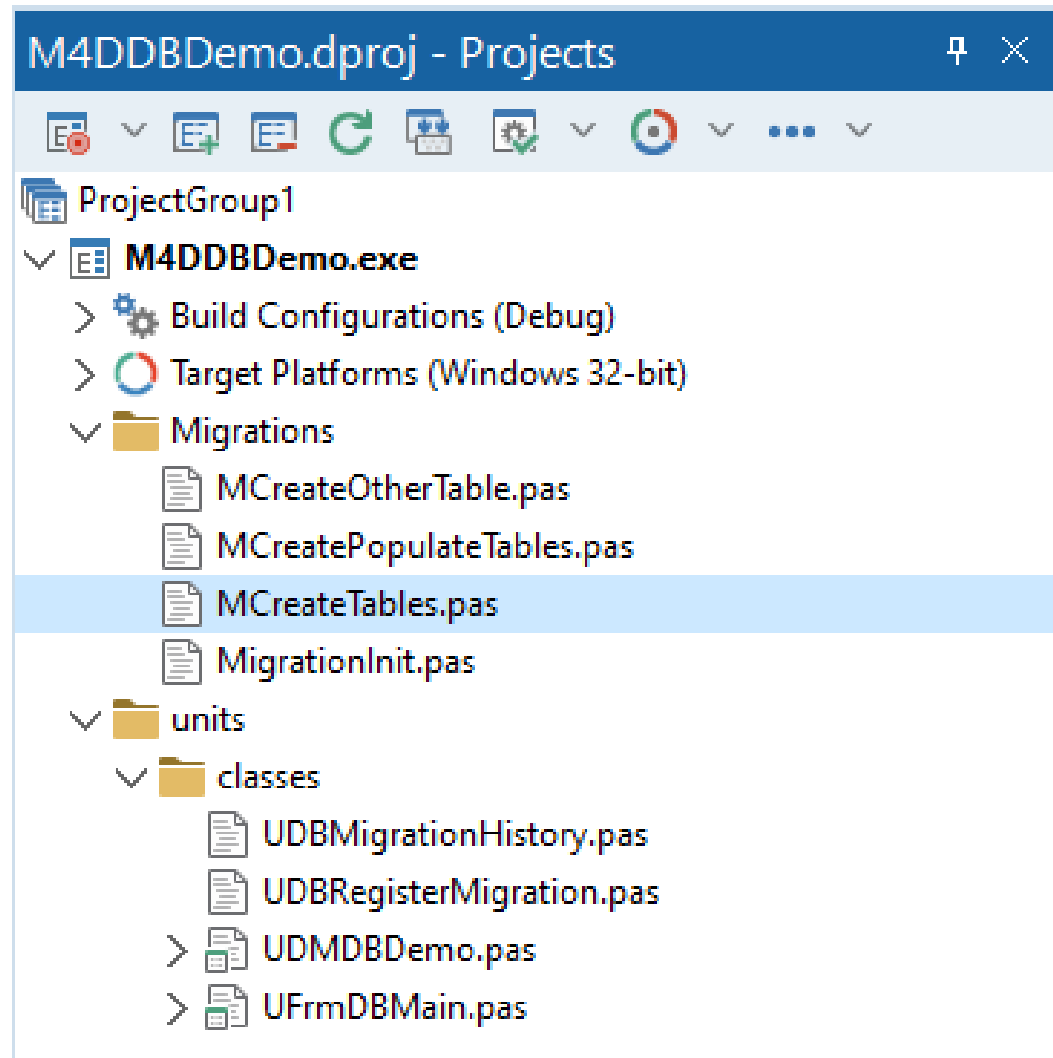
edgarpavao

Edgar Pavão

gabrielbaltazar

Gabriel Baltazar

Como Funciona?



```
procedure TMCreatetables.Up;  
var  
    LQuery: TFDQuery;  
begin  
    LQuery := DMDemo.GetQuery('CREATE TABLE IF NOT EXISTS CUSTOMERS ' +  
        '(ID INTEGER NOT NULL, NAME VARCHAR(100) NOT NULL)', False);  
    try  
        LQuery.ExecSQL;  
    finally  
        LQuery.Free;  
    end;  
end;
```

```
procedure TMCreatetables.Down;  
var  
    LQuery: TFDQuery;  
begin  
    LQuery := DMDemo.GetQuery('DROP TABLE CUSTOMERS', False);  
    try  
        LQuery.ExecSQL;  
    finally  
        LQuery.Free;  
    end;  
end;
```

```
type  
TMCreatetables = class(TMigrations)  
public  
    procedure Setup; override;  
    procedure Up; override;  
    procedure Down; override;  
end;
```

Como Funciona?

```
-  
begin
```

```
    M4D.MigrationFacade.ExecutePending;
```

```
end;  
-
```

```
procedure Execute;
```

```
procedure ExecutePending;
```

```
procedure ExecuteUntil(AMigrationSequence: Integer);
```

```
procedure ExecuteRange(AStartMigrationSequence: Integer; AEndMigrationSequence: Integer..
```

```
procedure Rollback;
```

```
procedure RollbackPending;
```

```
procedure RollbackUntil(AMigrationSequence: Integer);
```

```
procedure RollbackRange(AStartMigrationSequence: Integer; AEndMigrationSequence: Integer..
```

Como Funciona?

M4D.MigrationFacade.

```
procedure Execute;
procedure ExecutePending;
procedure ExecuteUntil(AMigrationSequence: Integer);
procedure ExecuteRange(AStartMigrationSequence: Integer; AEndMigrationSequence: Integer..
procedure Rollback;
procedure RollbackPending;
procedure RollbackUntil(AMigrationSequence: Integer);
procedure RollbackRange(AStartMigrationSequence: Integer; AEndMigrationSequence: Integer..
```

```
IMigrationsHistoryFacade
IMigrationsHistoryFacade = interface
['{639BAD0D-0273-4EB2-B129-D9CB70B1B108}']
IMigrationExecutorFacade.Clear
procedure Clear;
IMigrationsHistoryFacade.Load
procedure Load;
IMigrationsHistoryFacade.UnLoad
procedure UnLoad;
IMigrationsHistoryFacade.Add
procedure Add(AItem: TMigrationsHistoryItem);
IMigrationsHistoryFacade.Remove
procedure Remove(AMigrationSequence: Integer);
IMigrationsHistoryFacade.getHistory
function getHistory: TList<TMigrationsHistoryItem>; overload;
IMigrationsHistoryFacade.getHistory
function getHistory(AStartMigrationSeq: Integer): TList<TMigrationsHistoryItem>;
IMigrationsHistoryFacade.getHistory
function getHistory(AStartMigrationDateTime: TDateTime): TList<TMigrationsHistory
IMigrationsHistoryFacade.Save
procedure Save;
IMigrationsHistoryFacade.LastMigration
function LastMigration: TMigrationsHistoryItem;

property HistoryList: TList<TMigrationsHistoryItem> read getHistory;
end;
```

Demo!!! Vai mandar os fontes ???



Dúvidas??



Lançamento Curso



- **Módulo 1:** Introdução, instalação e conceitos.
- **Módulo 2:** Aplicando em projetos Mobile.
- **Módulo 3:** Aplicando em projetos VCL.
- **Módulo 4:** Aplicando em API.
- **Módulo 5:** Wizard e facilitadores.
- **Módulo 6:** Aplicando Migrations com ZEOS e outras engines.



Obrigado