

SQL版本管理工具flyway

Flyway is a popular open source database migration framework for Java. It brings structure and confidence to the evolution of your database schema. It is really easy to use, yet powerful and both developer and DBA-friendly. Flyway supports the industry's most common databases including Oracle, SQL Server, DB2, MySQL, PostgreSQL, Hsqldb, H2 and Derby. Migrations can be written in plain old SQL or Java and can be executed through the API, the Maven plugin, the Ant tasks or the Command-Line tool.

Web Site: <http://flywaydb.org>

It is based around 6 basic commands: Migrate, Clean, Info, Validate, Baseline and Repair.

Migrations can be written in SQL (database-specific syntax (such as PL/SQL, T-SQL, ...) is supported) or Java (for advanced data transformations or dealing with LOBs).

安装flyway :

wget <https://repol.maven.org/maven2/org/flywaydb/flyway-commandline/4.2.0/flyway-commandline-4.2.0-linux-x64.tar.gz>

配置flyway :

We can now configure Flyway by editing `/conf/flyway.conf` like this:

```
flyway.url=jdbc:h2:file:./foobardb
flyway.user=SA
flyway.password=
```

Creating the first migration

Now we can create a first migration in the `/sql` directory called `V1__Create_person_table.sql`:

```
create table PERSON (
  ID int not null,
  NAME varchar(100) not null
);
```

Migrating the database

It's now time to execute Flyway to migrate our database:

```
flyway-4.2.0> flyway migrate
```

If all went well, you should see the following output:

```
Creating Metadata table: "PUBLIC"."schema version"
Current version of schema "PUBLIC": << Empty Schema >>
Migrating schema "PUBLIC" to version 1 - Create person table
Successfully applied 1 migration to schema "PUBLIC" (execution time 00:00.062s).
```

Adding a second migration

If we now add a second migration to the `/sql` directory called `V2__Add_people.sql`:

```
insert into PERSON (ID, NAME) values (1, 'Axel');
insert into PERSON (ID, NAME) values (2, 'Mr. Foo');
insert into PERSON (ID, NAME) values (3, 'Ms. Bar');
```

and execute it by issuing:

```
flyway-4.2.0> flyway migrate
```

We now get:

```
Current version of schema "PUBLIC": 1
Migrating schema "PUBLIC" to version 2 - Add people
Successfully applied 1 migration to schema "PUBLIC" (execution time 00:00.090s).
```

Summary

In this brief tutorial we saw how to

- install the Flyway Command-line tool
- configure it so it can talk to our database
- write our first couple of migrations

These migrations were then successfully found and executed.

参考 : <https://flywaydb.org/documentation/commandline/>
<https://flywaydb.org/getstarted/firststeps/commandline>

Flyway supports the following basic commands to manage database migrations.

- **Info:** Prints current status/version of a database schema. It prints which migrations are pending, which migrations have been applied, what is the status of applied migrations and when they were applied.
- **Migrate:** Migrates a database schema to the current version. It scans the classpath for available migrations and applies pending migrations.
- **Baseline:** Baselines an existing database, excluding all migrations, including baselineVersion. Baseline helps to start with Flyway in an existing database. Newer migrations can then be applied normally.
- **Validate:** Validates current database schema against available migrations.
- **Repair:** Repairs metadata table.
- **Clean:** Drops all objects in a configured schema. All database objects are dropped. Of course, you should never use clean on any production database.

参考 : <http://www.baeldung.com/database-migrations-with-flyway>