

Some important reminders about DSL for JetBrains/Exposed in Kotlin

DSL stands for *Domain Specific Language*

Dependencies

Make sure you are using the following dependencies and/or repositories in Maven (or equivalent in Gradle):

```
<repositories>
  <repository>
    <id>jcenter</id>
    <name>jcenter</name>
    <url>http://jcenter.bintray.com</url>
  </repository>
  <repository>
    <id>central</id>
    <name>central</name>
    <url>https://repo1.maven.org/maven2</url>
  </repository>
</repositories>

<dependencies>
  <dependency>
    <groupId>org.jetbrains.exposed</groupId>
    <artifactId>exposed</artifactId>
    <version>0.17.3</version>
  </dependency>

  <dependency>
    <groupId>org.postgresql</groupId>
    <artifactId>postgresql</artifactId>
    <version>42.2.6</version>
  </dependency>
</dependencies>
```

Connection

To establish a connection to an existing database—in PostgreSQL—use the following syntax:

```
Database.connect("jdbc:postgresql://di.rection.IP:port/databaseName",
  "org.postgresql.Driver", "user", "password")
```

Tables

A DB table is represented by an `object` inherited from `org.jetbrains.exposed.sql.Table` like this:

```
object TableName: Table() {  
    val column1: Column<Type> = type(name)  
}
```

Where:

- `TableName` has to be an existing relation in the database
- `column1` is the variable to be used in Kotlin (does not need to match the database's relation's column name)
- `Type` is the type to be used in Kotlin
- `type` is the type corresponding to the one used in the database $\in \{\text{varchar}(\text{name}, \text{length}), \text{integer}(\text{name})\}$
- `name`, written within quotes (`""`) has to match the database's relation's column name

Datatypes

in Kotlin function	translates to DB type
<code>integer</code>	<code>INT</code>
<code>long</code>	<code>BIGINT</code>
<code>float</code>	<code>FLOAT</code>
<code>decimal</code>	<code>DECIMAL</code> <i>with scale and precision</i>
<code>bool</code>	<code>BOOLEAN</code>
<code>char</code>	<code>CHAR</code>
<code>varchar</code>	<code>VARCHAR</code> <i>with length</i>
<code>text</code>	<code>TEXT</code>
<code>enumeration</code>	<code>INT</code> <i>ordinal value</i>
<code>enumerationByName</code>	<code>VARCHAR</code>
<code>customEnumeration</code>	see <i>additional section</i>
<code>date</code>	<code>DATETIME</code>
<code>datetime</code>	<code>DATETIME</code>
<code>blob</code>	<code>BLOB</code>
<code>binary</code>	<code>VARBINARY</code> <i>with length</i>
<code>uuid</code>	<code>BINARY(16)</code>
<code>reference</code>	a foreign key

[obtained from here](#)