

Aula 9: Banco de Dados

JDBC

Adicionar o JDBC Connector

1. Baixe o MySQL ou Postgres JDBC Connector
2. Extraia o arquivo ZIP.
3. Na IDE, no seu projeto, clique com o botão direito em Libraries e selecione Add JAR/Folder.
4. Selecione o arquivo connector-java-x.x.x-bin.jar que você extraiu e clique em Open.

Adicionar o JDBC Connector

<https://dev.mysql.com/downloads/connector/j/>

<https://jdbc.postgresql.org/download/>

Preparando o Ambiente

```
CREATE DATABASE db_fatec;
```

```
USE db_fatec;
```

```
CREATE TABLE aluno (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    cpf VARCHAR(11) UNIQUE NOT NULL,  
    nome VARCHAR(255) NOT NULL  
);
```

Adicionar o JDBC Connector

```
public class DB {  
    public static Connection connect() throws SQLException {  
  
        try {  
            var jdbcUrl = "jdbc:postgresql://localhost:5432/db_fatec";  
            var user = "fatec";  
            var password = "fatec777";  
  
            return DriverManager.getConnection(jdbcUrl, user, password);  
        }  
    }  
}
```

Adicionar o JDBC Connector

```
        catch (SQLException e) {  
            System.err.println(e.getMessage());  
            return null;  
        }  
    }  
}
```

Adicionar o JDBC Connector

```
import java.sql.SQLException;

public class Main {
    public static void main(String[] args){
        try (var connection = DB.connect()){
            System.out.println("Connected to the PostgreSQL database.");
        } catch (SQLException e) {
            System.err.println(e.getMessage());
        }
    }
}
```

Create

```
String query = "INSERT INTO alunos (cpf, nome_completo) VALUES  
(?, ?)";
```

```
PreparedStatement stmt = connection.prepareStatement(query);
```

```
stmt.setString(1, "123456789");
```

```
stmt.setString(2, "Aluno Faculdade");
```

```
stmt.execute();
```

Select

```
List<Aluno> alunos = new ArrayList<>();

String query = "SELECT * FROM alunos";

PreparedStatement stmt = connection.prepareStatement(query);
ResultSet rs = stmt.executeQuery();

while (rs.next()) {
    alunos.add(new Aluno(rs.getString("cpf"),
rs.getString("nome_completo")));
}

alunos.forEach(System.out::println);
```

Dúvidas?