

Bu bölümde Apache Spark ile MySql bağlantısından bahsedeceğiz

Eğer windows/mac üzerinde mysql kurulumunuz yoksa XAMPP gibi programlarla makinenize rahatlıkla MySql kurabilirsiniz

1 - MySQL kurulumu

Mac :

```
brew install mysql
```

2 - Start mysql

```
brew services restart mysql
```

3 - Connect mysql

```
mysql -u root
```

4 - Create database

```
create database books;
```

5 - Change database

```
use books;
```

5 - Create table

```
create table authors (id INT, name varchar(20),email VARCHAR(20))
```

6 - Insert data

```
insert into authors(id,name,email) values(1,'Ali','ali@gmail.com');
insert into authors(id,name,email) values(2,'Batu','batu@gmail.com');
```

7 - Add mysql connector to build

```
libraryDependencies += "mysql" % "mysql-connector-java" % "8.0.30"
```

Spark code (Read)

```
import org.apache.spark.sql.SparkSession

object SparkSQLMysql {
  def main(args: Array[String]): Unit = {

    val spark = SparkSession.builder.master("local").
      appName("SparkByExample")
      .getOrCreate()

    val database = "books"
    val table = "authors"
    val user = "root"
    val password = ""
    val connString = "jdbc:mysql://localhost:3306/" + database

    val jdbcDF = (spark.read.format("jdbc")
      .option("url", connString)
      .option("dbtable", table)
      .option("user", user)
      .option("password", password)
      .option("driver", "com.mysql.cj.jdbc.Driver")
      .load())

    //jdbcDF.createOrReplaceTempView("authors")
```

```
//sparkSession.sql("select * from authors limit  
6").show()
```

```
jdbcDF.show()
```

```
}  
}
```

Spark code (Write)

```
import org.apache.spark.sql.{Encoders, SaveMode, SparkSession}  
  
import java.util.Properties  
  
case class Author(id:Int, name:String, email:String)  
  
object SparkSQLMysqlWrite {  
  def main(args: Array[String]): Unit = {  
  
    val spark = SparkSession.builder.master("local").  
      appName("SparkByExample")  
      .getOrCreate()  
    import spark.implicits._  
  
    val database = "books"  
    val table = "authors"  
    val connString = "jdbc:mysql://localhost:3306/" + database  
  
    val author1 = new Author(3,"Ayse", "ayse@gmail.com")  
    val author2 = new Author(4,"Mehmet", "mehmet@gmail.com")  
  
    //create a sequence  
    val authorSequence = Seq(author1, author2)  
  
    //create encoder  
    val authorEncoder = Encoders.bean(Author.getClass)  
  
    //create dataset
```

```
val personDs = spark.createDataset(authorSequence).as(authorEncoder)
personDs.show()

val connectionProperties = new Properties()
connectionProperties.put("user", "root")
connectionProperties.put("password", "")

personDs.write.mode(SaveMode.Append).jdbc(connString,table,connectionProperties)
}
}
```