```scala
1   case class CUSTOMER(
2   customer_id: Int,
3   code: String,
4   company_name: String,
5   contact_name: String,
6   contact_title: String,
7   city: String,
8   region: String,
9   postal_code: String,
10  country: String,
11  phone: String,
12  fax: String)
13
14  val DF_CUSTOMER =
    spark.sparkContext.textFile("./customer.tbl").map(_.split(",")).map(attributes=>CUSTOMER(
    attributes(0).trim.toInt, attributes(1).trim(), attributes(2).trim(),
    attributes(3).trim(), attributes(4).trim(), attributes(5).trim(), attributes(6).trim(),
    attributes(7).trim(), attributes(8).trim(), attributes(9).trim(),
    attributes(10).trim())).toDF()
15
16  CustomerDF.show()
17
18
19  case class ORDERDETAIL(
20  order_id: Int,
21  product_id: Int,
22  customer_id: Int,
23  supplier_id: Int,
24  unit_price: Float,
25  quantity: Int,
26  discount: Float)
27
28  val DF_ORDERDETAIL =
    spark.sparkContext.textFile("./order_detail.tbl").map(_.split(",")).map(attributes=>ORDER
    DETAIL(attributes(0).trim.toInt, attributes(1).trim.toInt, attributes(2).trim.toInt,
    attributes(3).trim.toInt, attributes(4).trim.toFloat, attributes(5).trim.toInt,
    attributes(6).trim.toFloat)).toDF()
29
30  OrderDetailDF.show()
31
32
33  case class ORDER(
34  order_id: Int,
35  order_date: String,
36  ship_via: String,
37  city: String,
38  region: String,
39  postal_code:
40  String, country: String)
41
42  val DF_ORDER =
    spark.sparkContext.textFile("./order.tbl").map(_.split(",")).map(attributes=>ORDER(attrib
    utes(0).trim.toInt, attributes(1).trim(), attributes(2).trim(), attributes(3).trim(),
    attributes(4).trim(), attributes(5).trim(), attributes(6).trim())).toDF()
43
44  DF_ORDER.show()
45
46  case class PRODUCT(product_id: String, name: String, unit_price: String, unit_in_stock:
    String, unit_on_order: String, discontinued: String)
47
48  val DF_PRODUCT =
    spark.sparkContext.textFile("./product.tbl").map(_.split(",")).map(attributes=>PRODUCT(at
    tributes(0), attributes(1), attributes(2), attributes(3), attributes(4),
    attributes(5))).toDF()
49
50  DF_PRODUCT.show()
51
52  case class SALESPERSON(
53  employee_id:Int,
```

```scala
54    last_name:String,
55    first_name:String,
56    title:String,
57    dob:String,
58    hire_date:String,
59    notes:String)
60
61    val DF_SALESPERSON =
      spark.sparkContext.textFile("./salesperson.tbl").map(_.split(",")).map(attributes=>SALESP
      ERSON(attributes(0).trim.toInt,attributes(1).trim(),attributes(2).trim(),
      attributes(3).trim(), attributes(4).trim(), attributes(5).trim(),
      attributes(6).trim())).toDF()
62
63    DF_SALESPERSON.show()
64
65    DF_ORDERDETAIL.filter(col("quantity") > 50).show()
66
67    DF_ORDER.filter(col("country").like("Germany")).count()
68
69    DF_ORDER.groupBy(col("country")).count().show()
70
71    DF_PRODUCT.sort(col("unit_price").desc).show(20)
```