
```
def read(name: String) = {  
  spark.read  
    .option("header", "true")  
    .option("sep", ";")  
    .option("ignoreLeadingWhiteSpace", "true")  
    .option("ignoreTrailingWhiteSpace", "true")  
    .csv(name)  
}
```

```
// select each column and get domain
```

```
val columns = inputs.map(read)  
  .flatMap(table =>  
    table  
      .columns  
      .map(column =>  
        table  
          .select(column)  
          .distinct()  
          .repartition(numPartitions)  
          .cache()))
```

```
// make all pairs of pairwise different columns (without same columns)
```

```
val pairs = columns  
  .flatMap(column =>  
    columns  
      .filter(anotherColumn => anotherColumn != column)  
      .map(anotherColumn => (column, anotherColumn)))
```

```
// only keep pairs where second contains all values of first
```

```
val inds = pairs.filter(pair => pair._1.except(pair._2).isEmpty)
```

```
// select column names, group, format and print
```

```
inds  
  .map(pair => (pair._1.schema(0).name, pair._2.schema(0).name))  
  .groupBy(pair => pair._1)  
  .map(group => (group._1, group._2.map(pair => pair._2).sorted.mkString(", ")))  
  .toList.sortBy(group => group._1)  
  .foreach(ind => println(s"${ind._1} < ${ind._2}"))
```