



**EDUCACIÓN**  
SECRETARÍA DE EDUCACIÓN PÚBLICA



**Tecnológico Nacional de México  
Instituto Tecnológico de Tijuana**

**Subdirección Académica  
Departamento de Sistemas y Computación**

**Semestre:**

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**Carrera:**

Ingeniería en Tecnologías de la Información y Comunicaciones  
Ingeniería en Sistemas Computacionales

**Materia y serie:**

Datos Masivos      BDD-1704TI9A

**Unidad a evaluar:** Unidad II

**Nombre de la Tarea:**

Práctica 6

**Nombre del Alumno:**

Flores Gonzalez Luis Diego C16211486  
Sifuentes Martinez Manuel Javier 17212934

**Nombre del docente:**

José Christian Romero Hernández

## Practice 6

The LinearSVC library is imported, which is the one that will help us to create the object that It will help to be able to classify the data, and that it allows access to methods contained in it.

```
import org.apache.spark.ml.classification.LinearSVC
```

The data that will be used to train the model is loaded, this is done by specifying the type of format in which the data comes, and then, through load, the directory where the data file is located is placed. This is going to be stored in the training variable, since SVM needs a set of data to be able to determine the separation hyperplane, and in this way determine if a future data is part of a certain class or another.

```
val training = spark.read.format("libsvm").load("data / mllib /  
sample_libsvm_data.txt")
```

Here the LinearSVC object is created, which is where the classification will take place, the setMaxIter method determines the maximum number of iterations to be performed and setRegParam is used to establish a regulation in the entered data.

```
val lsvc = new LinearSVC() .setMaxIter (10) .setRegParam (0.1)
```

Once the model has been created, now the data saved in the training variable are passed, in which the model must be adjusted to the data, this so that they can be classified based on these and obtain the coefficients that will be shown in the next step.

```
val lsvcModel = lsvc.fit (training)
```

At the end, the coefficients that gave as results when passing through the SVM model are shown, which is how they are classified in order to determine if it belongs to one or another class within SVM, as well as the line of intercept that resulted from classifying the data.

```
println (s "Coefficients: $ {lsvcModel.coefficients} Intercept: $  
{lsvcModel.intercept}")
```

Result:

[illegible]

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