Practical session 6 SVM

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Some website :

- http://scikit-learn.org/stable/modules/svm.html

- http://en.wikipedia.org/wiki/Support_vector_machine

This lab aims at introducing SVM and use them on real and synthetic datas using the package scikit-learn.

We shall use the object `sklearn.svm.SVC` :

```
from sklearn.svm import SVC
```

1. Use the website :
   http://scikit-learn.org/stable/modules/svm.html
   and the dataset `Iris`. Implement a classifier which classifies class 1 against class 2 of the dataset `iris` using the two first variables and a linear kernel. Use half of the dataset for training and half of the dataset for validation. To import the dataset `iris`, type
   ```
   from sklearn import datasets
   iris = datasets.load_iris()
   X = iris.data
   y = iris.target
   X = X[y != 0, :2]
   y = y[y != 0]
   ```

2. Compare the performance of the linear SVM with a SVM based on polynomial kernel