Optimization 1, Tarea 9

F. Zavala Garcia Guadiz

Libreria

```
import numpy as np
import matplotlib.pyplot as plt, matplotlib.colors, matplotlib.cm
from math import exp
from sklearn.metrics import ConfusionMatrix
# para optimizar
from sklearn.model_selection import train_test_split
from sklearn.utils.extmath import safe_sparse_dot
from sklearn.utils.validation import check_array, check_X_y, check_is_fitted
from sklearn.preprocessing import LabelBinarizer
import pandas as pd

%matplotlib inline
%matplotlib notebook
```

Aproximacion al operador de la derivada

```
def derivada(f,x,h=1e-6):
    return (f(x+h)-f(x-h))/(2*h)
Operador de la derivada: 2.2044604925031308-16
```

```
def implementaNewton(x0,maxiter,prg):
    '''
    Data function objective:
    - x0: initial point
    - x1: numero dde de iteraciones realizadas
    - prg: function
    - la forma de p,q,r.
    '''
    ...
    ...
    ...
```