```python
# -*- coding: utf-8 -*-
import numpy as np
import matplotlib.pyplot as plt
from mpl_toolkits.mplot3d import Axes3D      #  3D plotting tools.


def f(x,y) :
    return(x*x*x*x +y*y*y*y -2*x*x -4*x*y-2*y*y)

# Defintion de la grille
pointsx = np.linspace(-2, 2, 51)
pointsy = np.linspace(-2, 2, 51)
X, Y = np.meshgrid(pointsx, pointsy)
Z = f(X,Y)

# Création de la surface
ax = plt.axes(projection='3d')
ax.plot_surface(X, Y, Z, rstride=1, cstride=1,
                cmap='viridis', edgecolor='none')


plt.show()
```