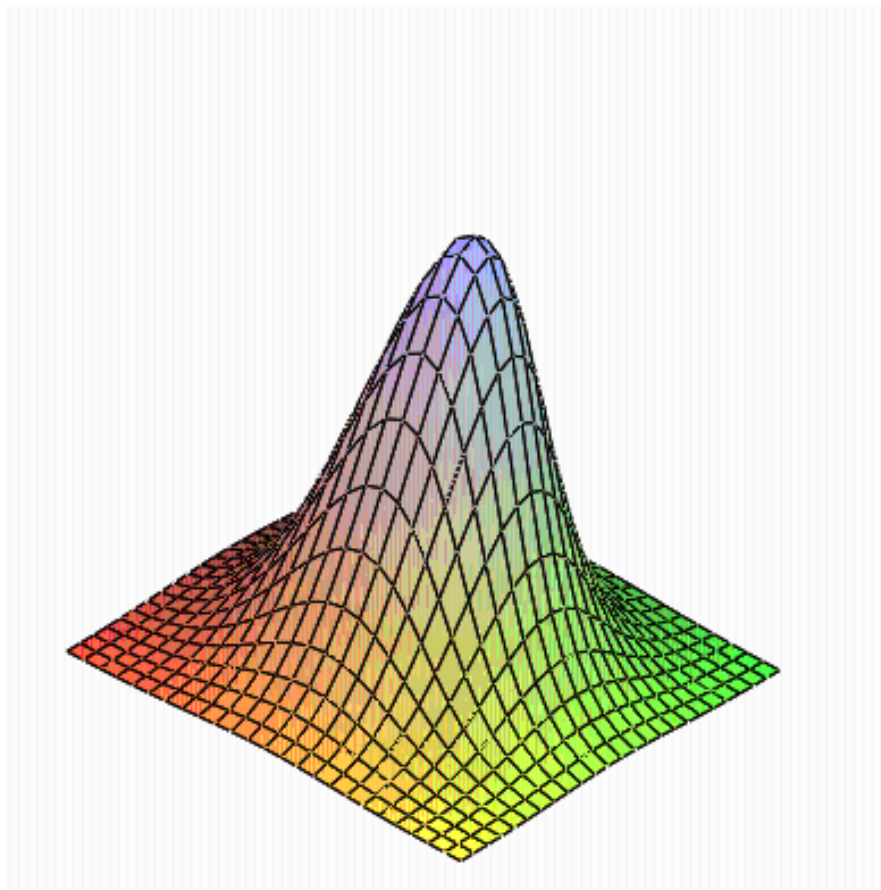


Assignment: Write a Maple program. Plot the function $f(x, y) = \frac{1}{2} \exp(-x^2 - y^2)$ for $x \in [-2, 2]$ and $y \in [-2, 2]$. Read the data from excel spreadsheet and store it in 4-dimensional matrix. Visualize data in 3D plot for every 3 of 4 coordinates.

Solution:

```
with(plots) :  
plot3d(  $\frac{\exp(-x^2 - y^2)}{2}$ , x=-2..2, y=-2..2 )
```



```
with(ExcelTools) :  
PP := convert(Import("E:\some_file.xls","Test", "D2:G1262"],  
Matrix);
```

1261 x 4 Matrix
Data Type: anything
Storage: rectangular
Order: Fortran_order

A1 := PP;

1261 x 4 Matrix
Data Type: anything
Storage: rectangular
Order: Fortran_order

LinearAlgebra[DeleteColumn](A1, 4)

1261 x 3 Matrix
Data Type: anything
Storage: rectangular
Order: Fortran_order

with(linalg) :

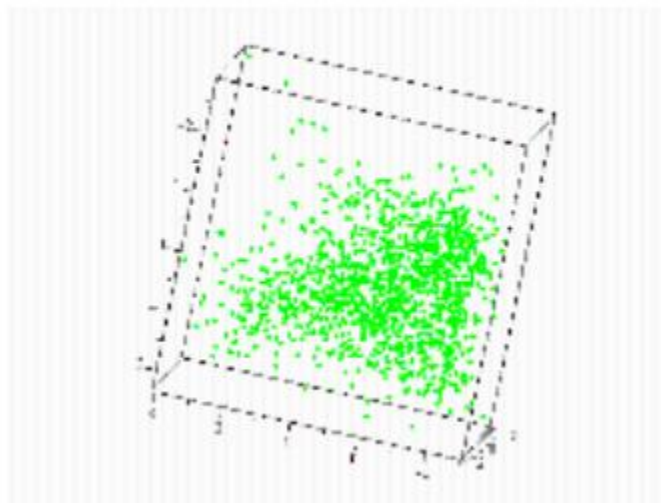
A2 := Transpose(A1)

Transpose $\left(\begin{array}{l} \textit{1261 x 4 Matrix} \\ \textit{Data Type: anything} \\ \textit{Storage: rectangular} \\ \textit{Order: Fortran_order} \end{array} \right)$

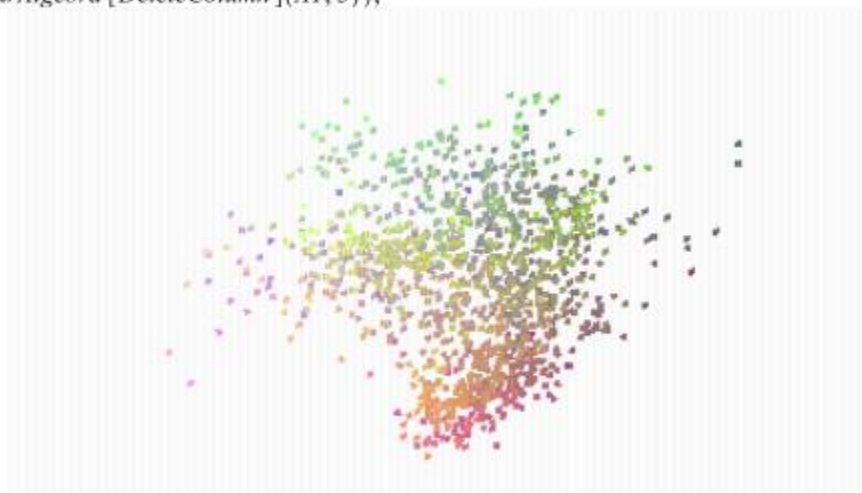
Assignment 4 Student

The way to your success!

```
pointplot3d (LinearAlgebra [DeleteColumn] (A1, 4), axes = box,  
color = green);
```



```
pointplot3d (LinearAlgebra [DeleteColumn] (A1, 3));
```



```
pointplot3d (LinearAlgebra [DeleteColumn] (A1, 2));
```



`pointplot3d (LinearAlgebra [DeleteColumn] (A1, 1));`

