#### **EIGENVALUES-AND-EIGENVECTORS**

### 'Aim:

To write a python program to find the Eigenvalues and Eigen Vectors

### 'Equipment's required:

- 1. Hardware PCs
- 2. Anaconda Python 3.7 Installation / Moodle-Code Runner

## <sup>2</sup> Algorithm:

#### Step1:

Import the numpy module to use the built-in functions for calculations.

#### Step 2:

Prepare the list from the given matrix and assign in np.array().

#### Step 3:

Using the np.linalg.eig(), we get two results (first is eigenvalue and second is eigenvector) of the given matrix.

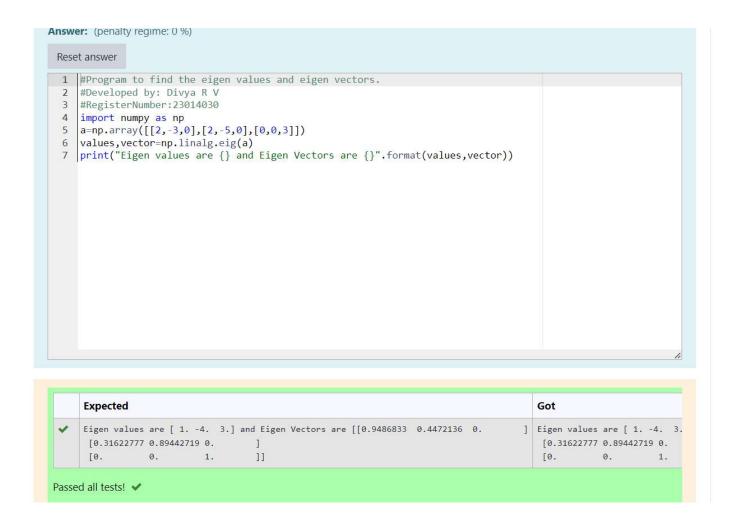
#### Step 4:

End program.

## <sup>'</sup>Program:

#Program to find the eigen values and eigen vectors. #Developed by: Divya R V #RegisterNumber:23014030 import numpy as np a=np.array([[2,-3,0],[2,-5,0],[0,0,3]]) values,vector=np.linalg.eig(a) print("Eigen values are {} and Eigen Vectors are {}".format(values,vector))

# <sup>'</sup>Output:



# Result:

Thus the Eigenvalue and Eigenvector is successfully solved using python program