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

Algorithm:

'Step 1:

Import the numpy module to use the built-in functions for calculation

Step 2:

Prepare the lists from each linear equations 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:

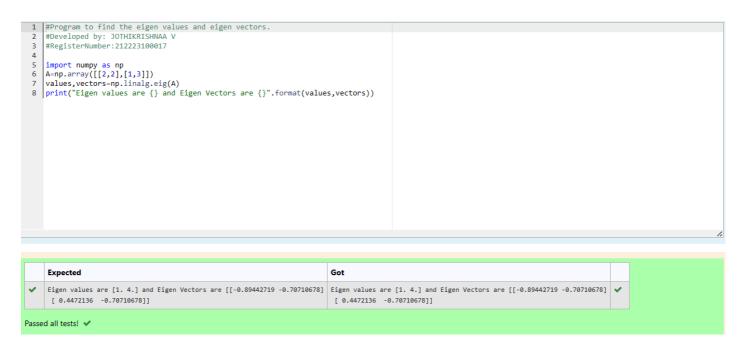
End the program.

² Program:

- ² Program to find the eigen values and eigen vectors.
- [']Developed by: JOTHIKRISHNAA V
- ² RegisterNumber:212223100017

```
import numpy as np
A=np.array([[2,2],[1,3]])
values,vectors=np.linalg.eig(A)
print("Eigen values are {} and Eigen Vectors are {}".format(values,vectors))
```

[']Output:



[']Result:

Thus the Eigenvalue and Eigenvector is successfully solved using python program