INVERSE-OF-A-MATRIX

Aim:

To write a python program to find the inverse of a matrix

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.inv(), we can find the inverse of the given matrix.

Step 4: End The Program

Program:

Program to find the inverse of a matrix.

Developed by: JOTHIKRISHNAA V

RegisterNumber:212223100017

```
import numpy as np
A=np.array([[1,0,3],[ -1,2,-2],[2,3,-1]])

result=np.linalg.inv(A)
print(result)
```

Output:

```
#Program to find the inverse of a matrix.
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result=np.linalg.inv(A)
print(result)
```

	Expected	Got	
✔	[[-0.23529412 -0.52941176 0.35294118] [0.29411765 0.41176471 0.05882353] [0.41176471 0.17647059 -0.11764706]]	[[-0.23529412 -0.52941176 0.35294118] [0.29411765 0.41176471 0.05882353] [0.41176471 0.17647059 -0.11764706]]	✔

Passed all tests! ✔

Result:

Thus the inverse of given matrix is successfully solved using python program