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

Step 1:

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

Step 2:

Prepare the lists from each inverse of matrix and assign in np.array()

Step 3:

Using the np.linalg.inv(a), we can find the rank of the given matrix.

Step 4:

End the program

Program:

```
#Program to find the inverse of a matrix.
#Developed by: NATARAJ KUMARAN.s
#RegisterNumber: 23003973
import numpy as np
a=np.array([[6,2,3],[3,1,1],[10,3,4]])
r=np.linalg.inv(a)
print(r)
```

Output:

Answer: (penalty regime: 0 %)

Reset answer

```
#Program to find the inverse of a matrix.
#Developed by: NATARAJ KUMARAN.s
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import numpy as np
a=np.array([[6,2,3],[3,1,1],[10,3,4]])
r=np.linalg.inv(a)
print(r)
```

	Expected	Got	
✔	[[-1. -1. 1.] [2. 6. -3.] [1. -2. -0.]]	[[-1. -1. 1.] [2. 6. -3.] [1. -2. -0.]]	✔

Passed all tests! ✔

Result:

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