RANK-OF-A-MATRIX

Aim:

To write a python program to find the rank 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.matrix_rank(), we can find the rank of the given matrix.

Step 4:

End the program

Program:

```
#Program to find the rank of a matrix.
#Developed by: Nara Guna Susmitha
#RegisterNumber:24010204
import numpy as np
matrix=np.array([[5,-3,-10],[2,2,-3],[-3,-1,5]])
rank=np.linalg.matrix_rank(matrix)
print(rank)
```

Output:

```python
#Program to find the rank of a matrix.
#Developed by: Nara Guna Susmitha
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import numpy as np
matrix=np.array([[5,-3,-10],[2,2,-3],[-3,-1,5]])
rank=np.linalg.matrix_rank(matrix)
print(rank)
```

	Expected	Got	
✓	3	3	✓

Passed all tests! ✓

Result:

Thus the rank for the given matrix is successfully solved by using a python program.