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Experiment 5

AIM :

Implementation of Gauss Elimination in Scilab.

Code

```

A = [1 1 1;1 2 3;1 3 2]
disp(A);
B = [3;0;3]
disp(B);
C = [A,B]
disp(C);
n = 3;
for i=1:n
    C(i,:) = C(i,)/C(i,i);
    disp(C)
    for j=1:n-1
        if i+j<n+1
            C(i+j,:) = C(i+j,)-C(i+j,i)*C(i,);
        end
    end
    disp(C)
end

z=C(3,4);
y=C(2,4)-C(2,3)*z;
x=C(1,4)-C(1,3)*z-C(1,2)*y;

printf("X=");
disp(x);
printf("Y=");
disp(y);
printf("Z=");
disp(z);

```

Output

Scilab 6.0.2 Console

```
1.  3.  2.

3.
0.
3.

1.  1.  1.  3.
1.  2.  3.  0.
1.  3.  2.  3.

1.  1.  1.  3.
1.  2.  3.  0.
1.  3.  2.  3.

1.  1.  1.  3.
0.  1.  2. -3.
0.  2.  1.  0.

1.  1.  1.  3.
0.  1.  2. -3.
0.  2.  1.  0.

1.  1.  1.  3.
0.  1.  2. -3.
0.  0. -3.  6.

1.  1.  1.  3.
0.  1.  2. -3.
0.  0.  1. -2.

1.  1.  1.  3.
0.  1.  2. -3.
0.  0.  1. -2.

X=
4.
Y=
1.
Z=
-2.

-->
```

CONCLUSION: Hence, by completing this experiment I came to know about Implementation of Gauss Elimination in Scilab.