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### Experiment 7

**AIM :** Implementation of Gauss Jacobi in Scilab.

**Code**

```

clc
A=[5 -2 3;-3 9 1; 2 -1 -7];
B=[-1;2;3];
n=5
x=0;
y=0;
z=0;
for i=1:n
    printf("\nIteration number: %g",i);
    X=(B(1)-A(1,2)*y-A(1,3)*z)/A(1,1);
    Y=(B(2)-A(2,1)*x-A(2,3)*z)/A(2,2);
    Z=(B(3)-A(3,1)*x-A(3,2)*y)/A(3,3);
    printf("\nTHE value of x:%g",X);
    printf("\nTHE value of y:%g",Y);
    printf("\nTHE value of z:%g",Z);
    x=X;
    y=Y;
    z=Z;
end

```

**Output**

Scilab 6.0.2 Console

```
Iteration number: 1
THE value of x:-0.2
THE value of y:0.222222
THE value of z:-0.428571
Iteration number: 2
THE value of x:0.146032
THE value of y:0.203175
THE value of z:-0.51746
Iteration number: 3
THE value of x:0.191746
THE value of y:0.328395
THE value of z:-0.415873
Iteration number: 4
THE value of x:0.180882
THE value of y:0.332346
THE value of z:-0.4207
Iteration number: 5
THE value of x:0.185359
THE value of y:0.329261
THE value of z:-0.424369
-->
|
```

**CONCLUSION:**

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