

```
clc; clear all; hold on; grid on;
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h = 0.01;
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```
t = 0:h:5;
```

```
i = zeros (1,length(t));
```

```
i(1) = 1;
```

```
R = 2;
```

```
L = 1;
```

```
i_ref = 5;
```

```
u = R*i_ref;
```

```
f = @(I) (1/L)*(u - R*I);
```

```
for j = 1:(length(t) - 1)
```

```
    k_1 = f(i(j));
```

```
    k_2 = f(i(j) + h*0.5*k_1);
```

```
    k_3 = f(i(j) + h*0.5*k_2);
```

```
    k_4 = f(i(j) + h*k_3);
```

```
    i(j+1) = i(j) + h*((1/6)*k_1 + (1/3)*k_2 + (1/3)*k_3 + (1/6)*k_4);
```

```
end
```

```
plot(t,i);
```