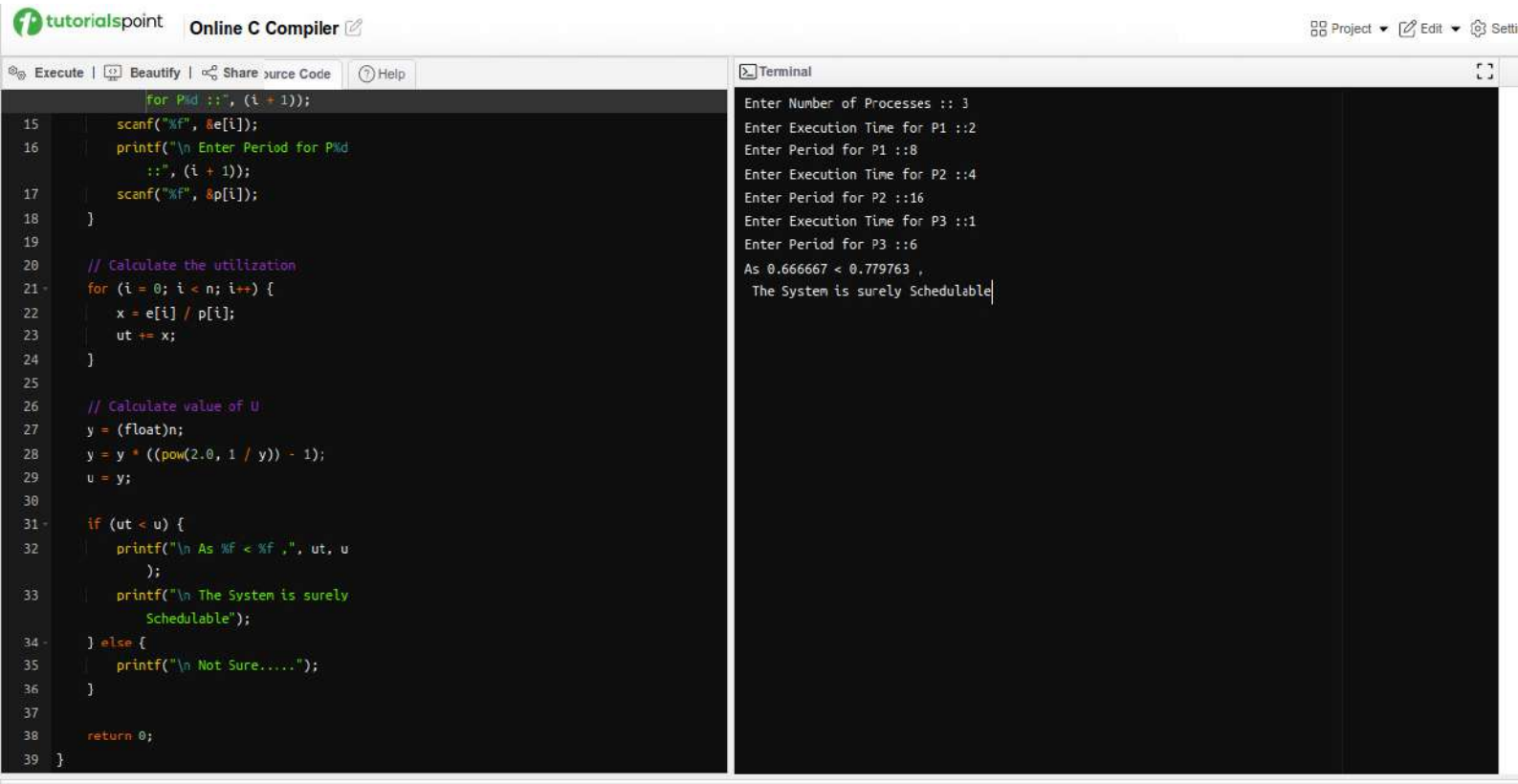
Rate - monotonic scheduling algorithm

```
#include <stdio.h>
#include <conio.h>
#include <math.h>
void main()
{
  int n;
  float e[20], p[20];
    int i;
  float ut, u, x, y;
  clrscr();
printf("\n Enter number of processes::");
  scanf("%od", &n);
  for (i=0; i<n; i++)
  {
  clrscr
printf("\n Enter Execution Time for Prod::";
                                    (i+1));
    scanf("%of", &e[i]);
    printf("\n Enter Period for Prod::";
                                    (i+1));
    scanf("%of", &P[i]);
  }
```

```
for (i=0; i<n; i++)
{
    x = e[i] / p[i];
    ut += x;
}
y = (float) n;
y = y * ((pow(2.0, 1/y)) - 1);
u = y;
if (ut < u)
{
printf("\n As %f < %f ", ut, u);
printf("\n The System is Surely Schedule
}
else
printf("\n Not Secure .... ");
getch();
}
```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for P%d ::", (i + 1));
scanf("%f", &e[i]);
printf("\n Enter Period for P%d
::", (i + 1));
scanf("%F", &p[i]);
}
// Calculate the utilization
for (i = 0; i < n; i++) {
x = e[i] / p[i];
ut += x;
}
// Calculate value of U
y = (float)n;
y = y * ((pow(2.0, 1 / y)) - 1);
u = y;
if (ut < u) {
printf("\n As %f < %f ,", ut, u
);
printf("\n The System is surely
Schedulable");
} else {
printf("\n Not Sure.....");
}
return 0;
}
Terminal
Enter Number of Processes :: 3
Enter Execution Time for P1 ::2
Enter Period for P1 ::8
Enter Execution Time for P2 ::4
Enter Period for P2 ::16
Enter Execution Time for P3 ::1
Enter Period for P3 ::6
As 0.666667 < 0.779763 ,
The System is surely Schedulable