



COMSATS UNIVERSITY ISLAMABAD
ATTOCK CAMPUS

Lab Report 8 : Operating System

Submitted to : Sir Fayyaz Ali

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Rubrics Assessment Sheet for Operating System	
Lab #:	Lab no 8
Lab Title:	Priority Scheduling Algorithms
Submitted by:	
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Rubrics name & number		Marks	
		In-Lab	Post lab
Engineering Knowledge	R2:Use of Engineering Knowledge and follow Experiment Procedures: <i>Ability to follow experimental procedure,control variables,and record Procedural steps on lab report.</i>		
Problem Analysis	R6: Experimental Data Analysis : <i>Ability to interept findings,compare them to values in the literature,identify weaknesses and limitations</i>		
Design	RS: Best Coding Staudards: <i>Abilitylofollowthecoding standards and programming practices</i>		
Modem Tools Usage	R9: Understa11d Tools: Ability to describe and explain the principles behind applicability of engineering tools.		
Individual and Teamwork	R9:Management of Team Work: <i>Ability to appreciate, understand and work multidisciplinary team members</i>		

Rubrics #	R2	R6	RS	R9	R13
Jn -Lab					
Post- Lab					

Q : Write a matlab Program to simulate rate-monotonic based static priority scheduling algorithm.

Code :

```
clc;
clear all;
close all;
n=input('Enter Number of Processes:');
sum=0;
for i=1:n
    burst(i)=input('Enter Burst time:');
    period(i)=input('Enter Period:');
end
for i=1:n
    sum=sum+(burst(i)/period(i));
end
if (sum>1)
    disp('The Processes are not Schedulable!')
else
    disp('The Processes are Schedulable!')
end
stack=0;flag=0;[M l]=min(period(:));
for i=1:n
    for j=i+1:n
        if(period(i)>period(j))
            temp=period(i);
            period(i)=period(j);
            period(j)=temp;temp1=burst(i);
            burst(i)=burst(j);
```

```

burst(j)=temp1;
end
end
end
period2=period;
b_t2=burst;
ct=period;
new=period-period;
for k=1:n
for i=1:n
for j=1:n
if (period2(j)==min(period2(:)))
stack=stack+b_t2(j);
if (stack>period2(j))
flag=1;
disp('Deadline missed!')
fprintf('P%d\n missed the deadline :(',j)
break
end
period2(j)=period2(j)+ct(j);
new(j)=new(j)+ct(j);
if(flag==1)
break
end
end
end
if(stack<min(new(:)))
z=min(new(:))-stack;
stack=stack+z;
end
if(flag==1)

```

break

end

end

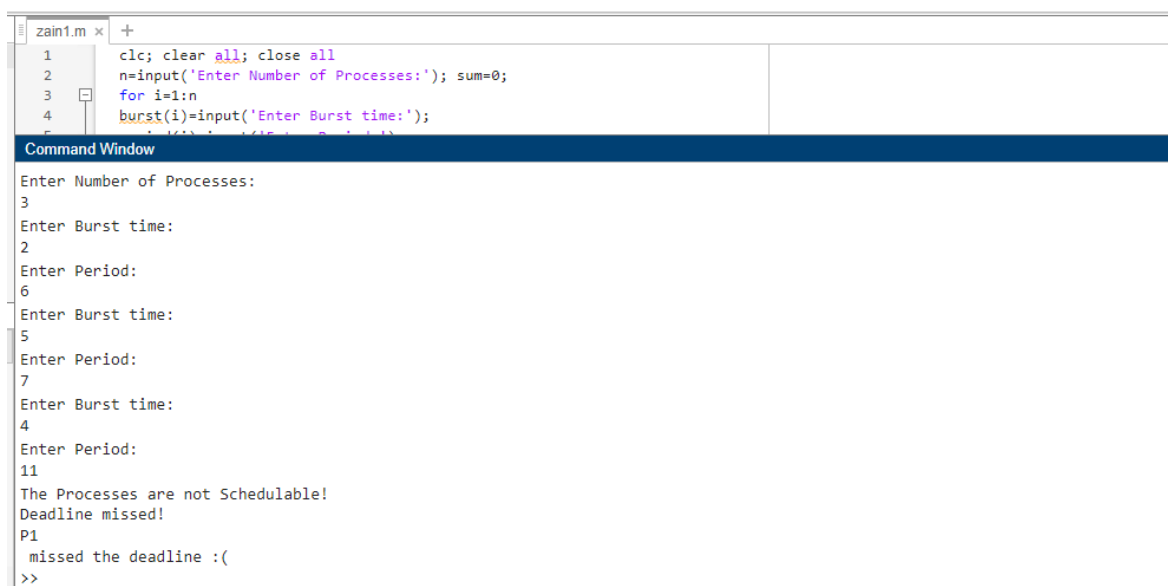
if(flag==1)

break

end

end

Output :



The screenshot shows a MATLAB Command Window with a script named 'zain1.m' open. The script contains the following code:

```
1 clc; clear all; close all
2 n=input('Enter Number of Processes:'); sum=0;
3 for i=1:n
4     burst(i)=input('Enter Burst time:');
5     T(i)=input('Enter Period:');
6 end
```

The Command Window displays the following interaction:

```
Enter Number of Processes:
3
Enter Burst time:
2
Enter Period:
6
Enter Burst time:
5
Enter Period:
7
Enter Burst time:
4
Enter Period:
11
The Processes are not Schedulable!
Deadline missed!
P1
missed the deadline :(
>>
```