

Algorithm Lab

Assignment-12

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1. You are given n activities with their start and finish times. Select the maximum number of activities that can be performed by a single person, assuming that a person can only work on a single activity at a time.

Code:

```
#include<stdio.h>

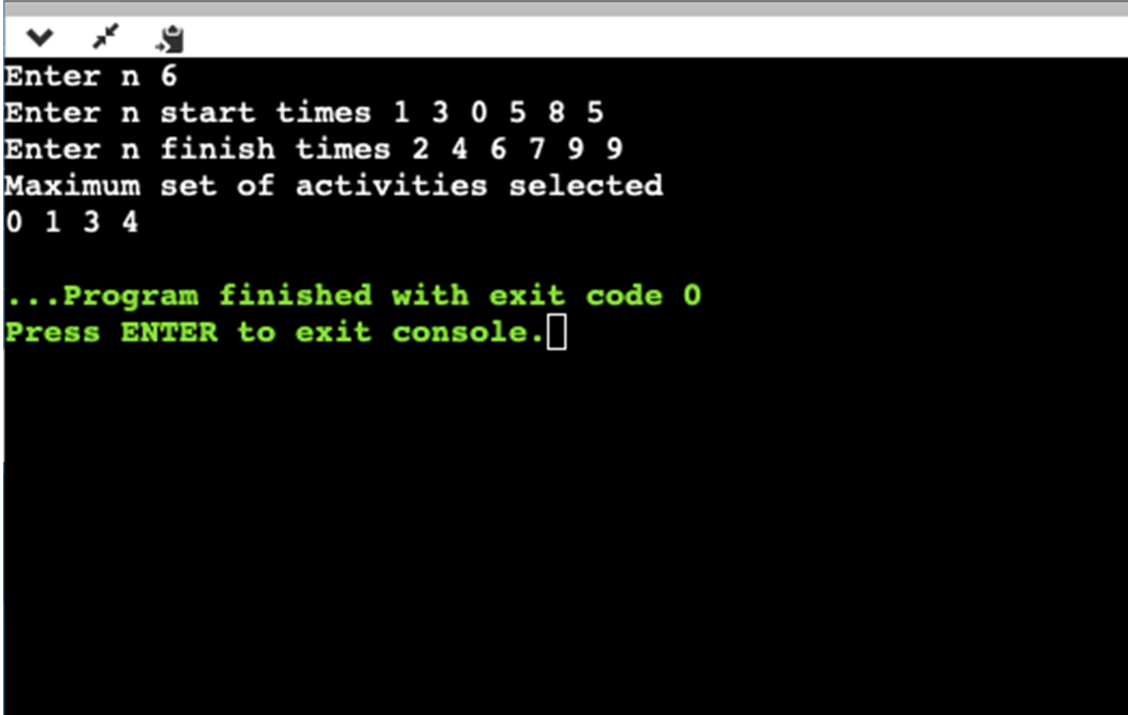
void printMaxActivities(int s[], int f[], int n)
{
    int i, j;

    printf("Maximum set of activities selected\n");
    i = 0;
    printf("%d ", i);
    for (j = 1; j < n; j++)
    {
        if (s[j] >= f[i])
        {
            printf("%d ", j);
            i = j;
        }
    }
}

int main()
{
    int n;
    printf("Enter n");
    scanf("%d", &n);
    int start[n], finish[n];
    printf("Enter n start times");
    for(int i = 0 ; i < n ; i++)
    {
        scanf("%d" , &start[i]);
```

```
}  
printf("Enter n finish times");  
for(int i = 0 ; i < n ; i++)  
{  
    scanf("%d" , &finish[i]);  
}  
printMaxActivities(start , finish , n);  
return 0;  
}
```

Output:



```
Enter n 6  
Enter n start times 1 3 0 5 8 5  
Enter n finish times 2 4 6 7 9 9  
Maximum set of activities selected  
0 1 3 4  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```