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Lab 10

Ques1: Implement the first fit algorithm?

Source Code

```c
#include<stdio.h>
int main()
{
    int bsize[10], psize[10], bno, pno, flags[10], allocation[10], i, j;
    for(i = 0; i < 10; i++){
        flags[i] = 0;
        allocation[i] = -1;
    }
    printf("Enter no. of blocks: ");
    scanf("%d", &bno);
    printf("Enter size of each block: ");
    for(i = 0; i < bno; i++){
        scanf("%d", &bsize[i]);
        printf("Enter no. of processes: ");
        scanf("%d", &pno);
        printf("Enter size of each process: ");
    }
    for(i = 0; i < pno; i++){
        scanf("%d", &psize[i]);
    }
    for(i = 0; i < pno; i++){          //allocation as per first fit
        for(j = 0; j < bno; j++){
            if(flags[j] == 0 && bsize[j] >= psize[i]){
                allocation[j] = i;
                flags[j] = 1;
                break;
            }
        }
    }
    printf("\nBlock no.\tsize\t\tprocess no.\t\tsize");
    for(i = 0; i < bno; i++){
        printf("\n%d\t\t%d\t\t", i+1, bsize[i]);
        if(flags[i] == 1){
            printf("%d\t\t\t%d",allocation[i]+1,psize[allocation[i]]);
        else{
            printf("Not allocated");
        }
    }
    return 0;
```

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Output

```
Enter no. of blocks: 4
Enter size of each block: 3
Enter no. of processes: 2
Enter size of each process: 10
Enter no. of processes: 4
Enter size of each process: 30
Enter no. of processes: 3
Enter size of each process: 25
Enter no. of processes: 4
Enter size of each process: 45
30
90
34

Block no.       size            process no.             size
1               3               Not allocated
2               10              Not allocated
3               30              2                       30
```