OPERATING SYSTEM - CS23431

EXP 10

BEST FIT

NAME: S.Manicka Meenakshi **ROLL NO: 230701173**

PROGRAM(PYTHON):

```
n1=int(input("Enter memory block size: "))
memory_block=[0]*n1
print("Enter value for memoryblocks")
for i in range(n1):
    memory_block[i]=int(input())
n2=int(input("Enter process block size: "))
process_block=[0]*n2
print("Enter value for processblocks")
for i in range(n2):
    process_block[i]=int(input())
alloc=[0]*n2
for i in range(n1):
    bestfit_ind=-1
    minrem_memory=float('inf')
    for j in range(n2):
        if memory_block[j]>=process_block[i]:
            rem_memory=memory_block[j]-process_block[i]
            if rem_memory<minrem_memory:
                minrem_memory=rem_memory
                bestfit_ind=j

    if bestfit_ind!=-1:
        alloc[i]=bestfit_ind
        memory_block[bestfit_ind]-=process_block[i]
print(alloc)
```

OUTPUT:


Exiting...[student@localhost ~]$ vi bestfit.py
[student@localhost ~]$ python3 bestfit.py
Enter memory block size: 5
Enter value for memoryblocks
100
500
200
300
400
Enter process block size: 5
Enter value for processblocks
350
150
250
600
100
[4, 2, 3, 0, 0]
[student@localhost ~]$

OPERATING SYSTEM - CS23431

EXP 10(B)

FIRST FIT

NAME: S.Manicka Meenakshi **ROLL NO: 230701173**

PROGRAM:

```
#include<stdio.h>
int main(){
  int n1;
  printf("Enter memory block size: ");
  scanf("%d",&n1);
  int mem[n1];
  printf("Enter value of memory blocks: ");
  for(int i=0;i<n1;i++){
  scanf("%d",&mem[i]);
  }
  int n2;
  printf("Enter process block size: ");
  scanf("%d",&n2);
  int p[n2];
  printf("Enter values of process blocks: ");
  for(int i=0;i<n2;i++){
  scanf("%d",&p[i]);
  }
  int frag[n1],alloc[n2],emp[n1],allocsize[n2];
  for(int i=0;i<n1;i++){
    emp[i]=1;
  }
  for(int i=0;i<n2;i++){
    alloc[i]=-1;
  }
  for(int i=0;i<n2;i++){
     for(int j=0;j<n1;j++){
        if(emp[j] && mem[j]>=p[i]){
           alloc[i]=j;
           allocsize[i]=mem[j];
           frag[i]=mem[j]-p[i];
           emp[j]=0;
```

```
        break;
      }
    }
  }
  printf("FileNo\tFilesize\tBlockNo\tBlocksize\tFragment\t\n");
  for(int i=0;i<n2;i++)
  {
     printf("%d\t%d\t%d\t%d\t%d\n",i,p[i],alloc[i],allocsize[i],frag[i]);
  }
}
```

OUTPUT:

```
Enter memory block size: 4
Enter value of memory blocks: 5
8
1
10
Enter process block size: 3
Enter values of process blocks: 1
4
7
FileNo  Filesize        BlockNo Blocksize       Fragment
0       1       0       5       4
1       4       1       8       4
2       7       3       10      3
```