

OPERATING SYSTEM - CS23431

EXP 10

BEST FIT

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PROGRAM(PYTHON):

```
n1 = int(input("Enter number of memory blocks: "))
memory_block = [0] * n1

print("Enter values for memory blocks:")
for i in range(n1):
    memory_block[i] = int(input())

n2 = int(input("Enter number of process blocks: "))
process_block = [0] * n2

print("Enter values for process blocks:")
for i in range(n2):
    process_block[i] = int(input())

alloc = [-1] * n2 # -1 means not allocated

for i in range(n2):
    bestfit_ind = -1
    minrem_memory = float('inf')
    for j in range(n1):
        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("\nProcess No.\tProcess Size\tBlock No.")
for i in range(n2):
    print(f'{i+1}\t\t{process_block[i]}\t\t', end='')
    if alloc[i] != -1:
```

```
    print(alloc[i]+1)
else:
    print("Not Allocated")
```

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 ~]$
```