

Ex. No.: 10a)

Date: 11/4/25

BEST FIT

Aim:

To implement Best Fit memory allocation technique using Python.

Algorithm:

1. Input memory blocks and processes with sizes
2. Initialize all memory blocks as free.
3. Start by picking each process and find the minimum block size that can be assigned to current process
4. If found then assign it to the current process.
5. If not found then leave that process and keep checking the further processes.

Program Code:

```
# include <stdio.h>
```

```
int main() {
```

```
    int n, m;
```

```
    printf("Enter the no of block");
```

```
    scanf("%d", &n);
```

```
    printf("Enter no of processes");
```

```
    scanf("%d", &m);
```

```
    int blocks[n];
```

```
    int process[m];
```

```
    int allocation[m];
```

```
    for (int i=0; i<m; i++) {
```

```
        allocation[i] = -1;
```

```
    }
```

```
    for (int i=0; i<n; i++)
```

```
    {
```

```
        scanf("%d", &blocks[i]);
```

```
    }
```

```

for (int i=0; i<m; i++) {
    printf("Enter process %d size: ", i+1);
    scanf("%d", &process[i]);
}

```

```

int best_index;
for (int i=0; i<m; i++)
{
    best_index = -1;
    for (int j=0; j<n; j++)
    {
        if (blocks[j] >= process[i])
        {
            if (blocks[j] < block[best_index])
            {
                best_index = j;
                allocation[i] = best_index;
                blocks[best_index] -= process[i];
            }
        }
    }
}

```

```

printf("\n Process no.      Process Size      Block No");
for (int i=0; i<m; i++)
{
    if (allocation[i] != -1)
    {
        printf("\n %d . It is %d It is %d", i+1, process[i], allocation[i]+1);
    } else {
        printf("\n %d It is %d It is Not Allocated", i+1, process[i]);
    }
}
}
}

```

OUTPUT :-

Enter no. of blocks : 4

Block size :

B₁ - 100

B₂ - 500

B₃ - 150

B₄ - 300

Enter no of processes : 3

Process size :

P₁ - 99

P₂ - 211

P₃ - 300

Process No

Process size

Block No

P₁

99

B₁

P₂

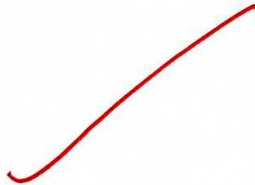
211

B₄

P₃

300

B₂



Sample Output:

Process No.	Process Size	Block no.
1	212	4
2	417	2
3	112	3
4	426	5

Result:

Hence the best fit memory allocation technique is executed successfully.

