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 <sdio.h>.
int main(){
    int n,m;
    printf("Enter the no. of blocks");
    scanf("%d", &m);
    int blocks [n];
    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];
        {
```

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```c
if (blocks [j] < blocks [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 )t/t %d /t/t %d;
                        i+1, process [i], allocation
                                                [i]+1);
        }
        else
        printf (" \n %d /t/t %d/t/t Not Allocated";
                        i+1, process [i]);
        }
    }
}
```

Output :

    Enter no. of blocks = 4

    Block size

        B_1 — 100

        B_2 — 500

        B_3 - 150
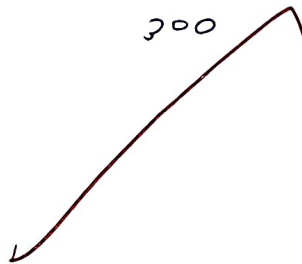
        B_4 - 300

    Enter no. of processes : 3

    process size

        P_1 - 99

        P_2 - 211

        P_3 - 300

process No	process size	Block no.
P_1	99	B_1
P_2	211	B_4
P_3	300	B_2 .

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 has. has been executed sucessfully.