

## Question 9 (b)

Write a program to implement the Next fit memory management algorithm. Program should take input total no. of memory block ,their sizes , process name and process size. Output of program should give the details about memory allocated to process with fragmentation detail.

GARV NANWANI

19BCS049

CODE :

```
#include<bits/stdc++.h>
using namespace std;

void Next_Fit(int block_size[], int total_blocks, int process_size[], int
total_process)
{
    int allocation[total_process], j = 0;
    memset(allocation, -1, sizeof(allocation));
    for (int i = 0; i < total_process; i++) {
        while (j < total_blocks) {
            if (block_size[j] >= process_size[i]) {
                allocation[i] = j;
                block_size[j] -= process_size[i];
                break;
            }
            j = (j + 1) % total_blocks;
        }
    }

    cout << "\nProcess No.\tProcess Size\tBlock no.\n";
    for (int i = 0; i < total_process; i++) {
        cout << " " << i+1 << "\t\t" << process_size[i] << "\t\t";
        if (allocation[i] != -1)
            cout << allocation[i] + 1;
        else
            cout << "Not Allocated";
        cout << endl;
    }
}

int main() {
    int total_blocks, total_process;
    cout << "Enter Number of Memory Blocks\n";
    cin >> total_blocks;
    cout << "Enter Number of Process\n";
    cin >> total_process;

    int block_size[total_blocks], process_size[total_process];
    cout << "Enter values of Memory Blocks\n";
    for (int i = 0; i < total_blocks; i++) {
        cin >> block_size[i];
    }
}
```

```

    cout << "Enter values of Process\n";
    for (int i = 0; i < total_process; i++) {
        cin >> process_size[i];
    }
    Next_Fit(block_size, total_blocks, process_size, total_process);
    return 0 ;
}

```

## Output :

```

Enter Number of Memory Blocks
5
Enter Number of Process
5
Enter values of Memory Blocks
4
5
6
7
8
Enter values of Process
3
4
5
6
7

Process No. Process Size    Block no.
1             3            1
2             4            2
3             5            3
4             6            4
5             7            5

```