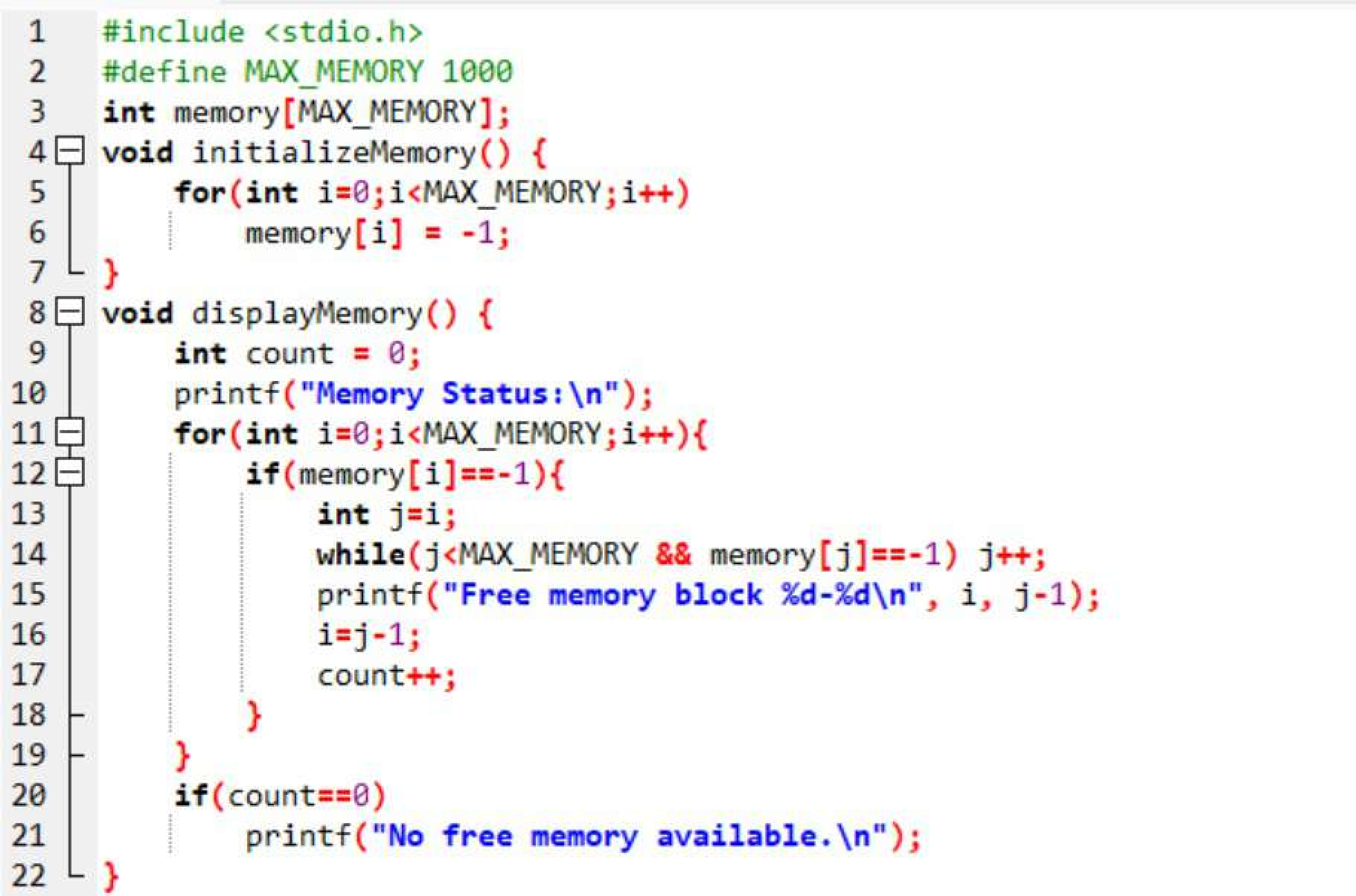
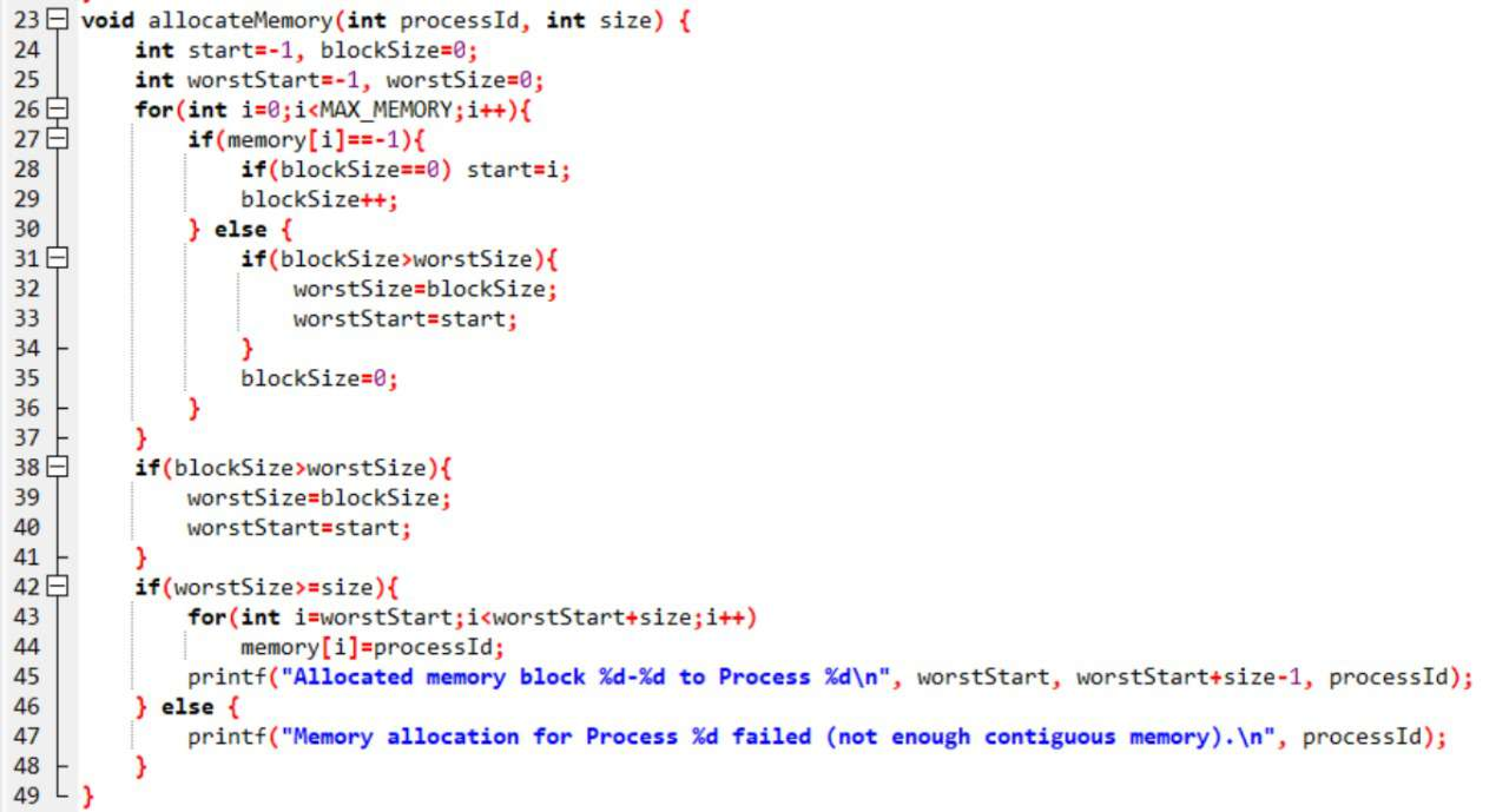
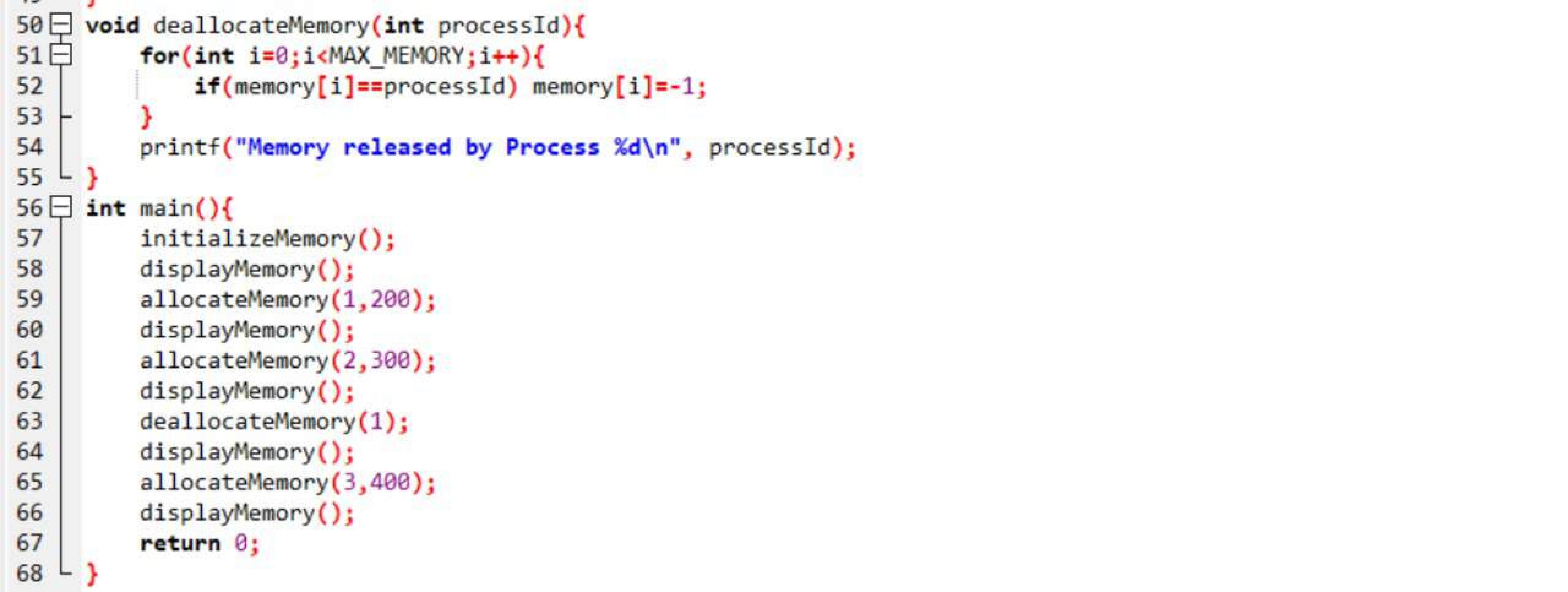


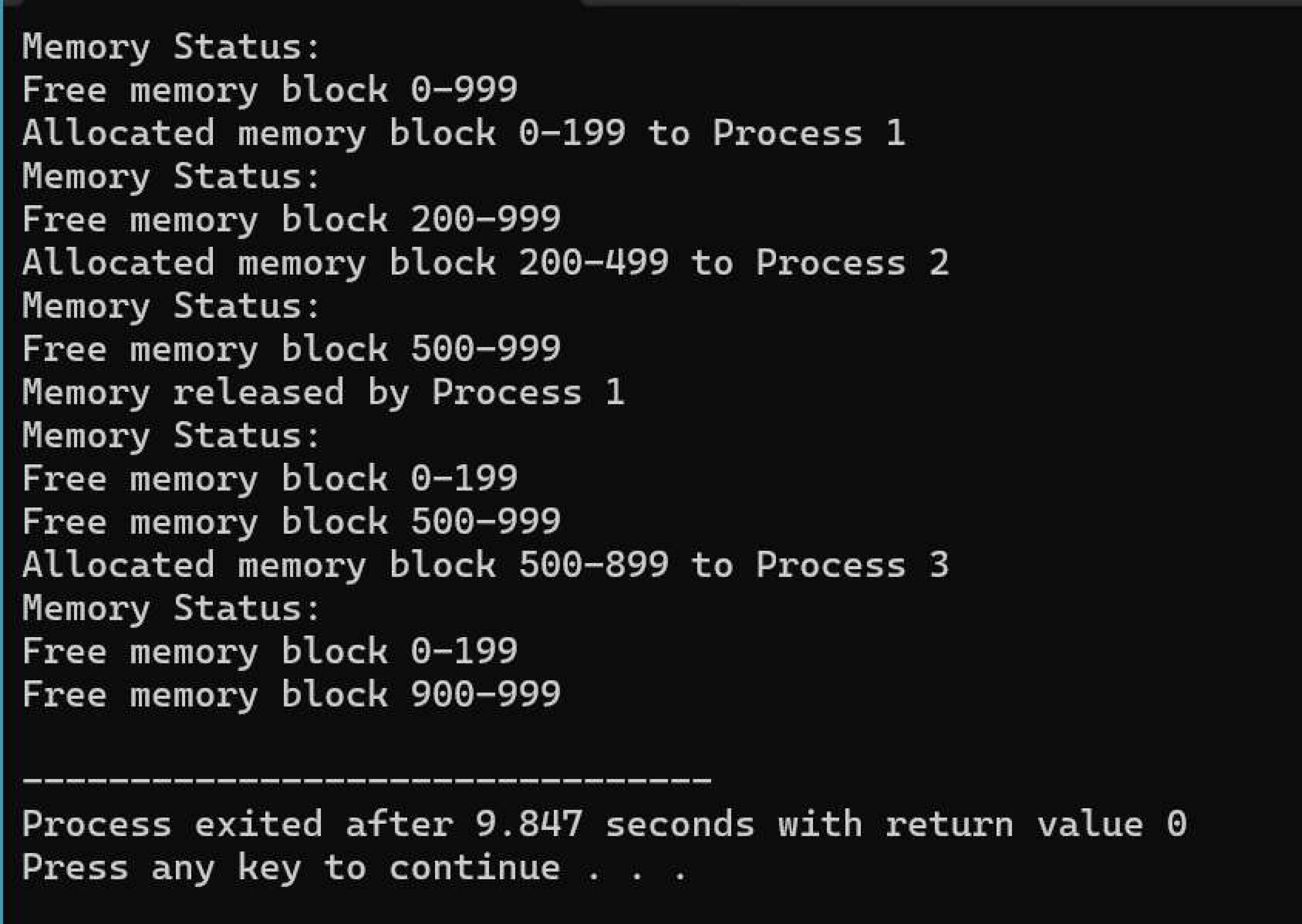
```c
#include <stdio.h>
#define MAX_MEMORY 1000
int memory[MAX_MEMORY];
void initializeMemory() {
    for(int i=0;i<MAX_MEMORY;i++)
        memory[i] = -1;
}
void displayMemory() {
    int count = 0;
    printf("Memory Status:\n");
    for(int i=0;i<MAX_MEMORY;i++){
        if(memory[i]==-1){
            int j=i;
            while(j<MAX_MEMORY && memory[j]==-1) j++;
            printf("Free memory block %d-%d\n", i, j-1);
            i=j-1;
            count++;
        }
    }
    if(count==0)
        printf("No free memory available.\n");
}
```



```c
void allocateMemory(int processId, int size) {
    int start=-1, blockSize=0;
    int worstStart=-1, worstSize=0;
    for(int i=0;i<MAX_MEMORY;i++){
        if(memory[i]==-1){
            if(blockSize==0) start=i;
            blockSize++;
        } else {
            if(blockSize>worstSize){
                worstSize=blockSize;
                worstStart=start;
            }
            blockSize=0;
        }
    }
    if(blockSize>worstSize){
        worstSize=blockSize;
        worstStart=start;
    }
    if(worstSize>=size){
        for(int i=worstStart;i<worstStart+size;i++)
            memory[i]=processId;
        printf("Allocated memory block %d-%d to Process %d\n", worstStart, worstStart+size-1, processId);
    } else {
        printf("Memory allocation for Process %d failed (not enough contiguous memory).\n", processId);
    }
}
```



```c
}
void deallocateMemory(int processId){
    for(int i=0;i<MAX_MEMORY;i++){
        if(memory[i]==processId) memory[i]=-1;
    }
    printf("Memory released by Process %d\n", processId);
}
int main(){
    initializeMemory();
    displayMemory();
    allocateMemory(1,200);
    displayMemory();
    allocateMemory(2,300);
    displayMemory();
    deallocateMemory(1);
    displayMemory();
    allocateMemory(3,400);
    displayMemory();
    return 0;
}
```



```
Memory Status:
Free memory block 0-999
Allocated memory block 0-199 to Process 1
Memory Status:
Free memory block 200-999
Allocated memory block 200-499 to Process 2
Memory Status:
Free memory block 500-999
Memory released by Process 1
Memory Status:
Free memory block 0-199
Free memory block 500-999
Allocated memory block 500-899 to Process 3
Memory Status:
Free memory block 0-199
Free memory block 900-999

--------------------------------
Process exited after 9.847 seconds with return value 0
Press any key to continue . . .
```