```
#include <stdio.h>
#define MEMORY SIZE 1000
#define NUM_BLOCKS 5
int memory[MEMORY_SIZE];
int block_size[NUM_BLOCKS] = {100, 200, 300, 150, 250};
int block_allocated[NUM_BLOCKS] = {0};
void allocate_memory(int process_size, int process_id) {
  int best_index = -1;
  for (int i = 0; i < NUM_BLOCKS; i++) {
     \textbf{if} \ (!block\_allocated[i] \ \&\& \ block\_size[i] >= process\_size) \ \{ \\
      if (best_index == -1 \mid \mid block_size[i] < block_size[best_index]) {
        best_index = i;
      }
    }
  }
  if (best index != -1) {
    block_allocated[best_index] = process_id;
    printf("Process %d allocated to block %d\n", process id, best index);
  } else {
    printf("Process %d cannot be allocated\n", process id);
}
void deallocate memory(int process id) {
  for (int i = 0; i < NUM BLOCKS; i++) {
    if (block allocated[i] == process id) {
      block allocated[i] = 0;
      printf("Process %d deallocated from block %d\n", process id, i);
      return;
    }
  }
  printf("Process %d not found in memory\n", process id);
int main() {
  allocate memory(120, 1);
  allocate memory(180, 2);
  allocate memory(90, 3);
  allocate memory(200, 4);
  allocate memory(80, 5);
  deallocate memory(2);
  allocate memory(180, 6);
  return 0;
```