```c
#include <stdio.h>

#define SIZE 5

struct Student {
    char name[100];
    int age;
    int id;
    float avg;
};

struct Node {
    struct Student data;
    struct Node* next;
};

void inputStudent(struct Student* s);
void printStudent(struct Student* s);
int printTop(struct Student* s);

int main() {
    struct Student student[SIZE];

    inputStudent(student);

    printf("------------------------------\n");
    printf("[í\225\231ì\203\235 ì \225ë³´ ì¶\234ë ¥]\n");
    printf("------------------------------\n");

    int top = printTop(student);

    for (int i = 0; i < SIZE; i++) {
        if (i == top) { continue; }
        printStudent(&student[i]);
    }

    return 0;
}
void inputStudent(struct Student* s) {
    for (int i = 0; i < SIZE; i++) {
        printf("[%dë²\210ì§¸ í\225\231ì\203\235 ì\236\205ë ¥]\n", i + 1);
        printf("í\225\231ì\203\235 ì\235´ë¦\204 ì\236\205ë ¥: ");
        scanf("%s", s[i].name);
        printf("í\225\231ì\203\235 ë\202\230ì\235´ ì\236\205ë ¥: ");
        scanf("%d", &s[i].age);
        printf("í\225\231ì\203\235 í\225\231ë²\210 ì\236\205ë ¥: ");
        scanf("%d", &s[i].id);
        printf("í\225\231ì\203\235 í\217\211ê•  ì \220ì\210\230 ì\236\205ë ¥: ");
        scanf("%f", &s[i].avg);
        printf("\n");
    }

}
void printStudent(struct Student* s) {

    printf("ì\235´ë¦\204: %s\n", s->name);
    printf("ë\202\230ì\235´: %d\n", s->age);
    printf("í\225\231ë²\210: %d\n", s->id);
    printf("í\217\211ê•  ì \220ì\210\230: %.1f\n", s->avg);
    printf("\n");

}

int printTop(struct Student* s) {
    int top = 0;
    int temp = 0;
    for (int i = 1; i < SIZE; i++) {
        if (s[i].avg > s[temp].avg) {
            temp = i;
        }
    }
    top = temp;
    printStudent(&s[top]);
    return top;
}
```

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

struct Student {
    char* name;
    int age;
    int id;
    float avg;
};

struct Node {
    struct Student data;
    struct Node* next;
};

// í\225\231ì\203\235 ì \225ë³´ ì\236\205ë ¥
struct Student inputStudent() {
    struct Student s;
    char array[100]; //í\225\231ì\203\235 ì\235´ë¦\204 ì \200ì\236¥í\225ë°°ì\227´

    printf("\ní\225\231ì\203\235 ì\235´ë¦\204 ì\236\205ë ¥(ë\235\204ì\226´ì\223°ê¸° í\217¬í\225¨): ");
    getchar();  // ì\236\205ë ¥ ë²\204í\215¼ ë¹\204ì\232°ê¸°
    if (fgets(array, sizeof(array), stdin) != NULL) {
        array[strcspn(array, "\n")] = '\0';
    }
    s.name = (char*)malloc(strlen(array) + 1);
    strcpy(s.name, array);//ì\227¬ê¸°ì\204\234 ê°\234í\226\211ë¬¸ì\236\220ë\223¤ì\226´ê°\220

    printf("í\225\231ì\203\235 ë\202\230ì\235´ ì\236\205ë ¥: ");
    scanf("%d", &s.age);

    printf("í\225\231ì\203\235 í\225\231ë²\210 ì\236\205ë ¥: ");
    scanf("%d", &s.id);

    printf("í\225\231ì\203\235 í\217\211ê•  ì \220ì\210\230 ì\236\205ë ¥: ");
    scanf("%f", &s.avg);

    return s;
}

// ì \204ì²´ í\225\231ì\203\235 ì¶\234ë ¥
void printAll(struct Node* head) {
    int i = 0;
    while (head != NULL) {
        printf("\n[%dë²\210ì§¸ í\225\231ì\203\235]\n", i + 1);
        printf("ì\235´ë¦\204: %s\n", head->data.name);
        printf("ë\202\230ì\235´: %d\n", head->data.age);
        printf("í\225\231ë²\210: %d\n", head->data.id);
        printf("í\217\211ê•  ì \220ì\210\230: %.11f\n", head->data.avg);
        head = head->next;
    }
}

// ìµ\234ê³  ì \220ì\210\230 í\225\231ì\203\235 ì¶\234ë ¥
void printTop(struct Node* head) {
    if (head == NULL) return;
    struct Node* topStu = head;
    while (head != NULL) {
        if (head->data.avg > topStu->data.avg) {
            topStu = head;
        }
        head = head->next;
    }
    printf("\n[ìµ\234ê³  í\217\211ê•  ì \220ì\210\230 í\225\231ì\203\235]\n");
    printf("ì\235´ë¦\204: %s\n", topStu->data.name);
    printf("ë\202\230ì\235´: %d\n", topStu->data.age);
    printf("í\225\231ë²\210: %d\n", topStu->data.id);
    printf("í\217\211ê•  ì \220ì\210\230: %.1f\n", topStu->data.avg);
}

// ì\235´ë¦\204 ë\230\220ë\212\224 í\225\231ë²\210ì\234¼ë¡\234 ê²\200ì\203\211
struct Node* searchStudent(struct Node* head) {
    int choice;
    char array[100];
    int id;

    printf("ê²\200ì\203\211 ê¸°ì¤\200 ì\204 í\203\235 (1. ì\235´ë¦\204, 2. í\225\231ë²\210): ");
    scanf("%d", &choice);

    if (choice == 1) {
        getchar();
        printf("ì\235´ë¦\204 ì\236\205ë ¥: ");
        if (fgets(array, sizeof(array), stdin) != NULL) {
            array[strcspn(array, "\n")] = '\0';
        }
        while (head != NULL) {
            if (strcmp(head->data.name, array) == 0)//ë¬¸ì\236\220ì\227´ë¹\204êµ\220
                return head;
            head = head->next;
        }
    }
    else if (choice == 2) {
        printf("í\225\231ë²\210 ì\236\205ë ¥: ");
        scanf("%d", &id);
        while (head != NULL) {
            if (head->data.id == id)
                return head;
            head = head->next;
        }
    }
    return NULL;
}

// í\225\231ì\203\235 ì\202-ì \234
struct Node* deleteStudent(struct Node* head) {
    int choice, id;
    char array[100];
    struct Node* prev = NULL;
    struct Node* cur = head;

    printf("ì\202-ì \234 ê¸°ì¤\200 ì\204 í\203\235 (1. ì\235´ë¦\204, 2. í\225\231ë²\210): ");
    scanf("%d", &choice);

    if (choice == 1) {
        printf("ì\235´ë¦\204 ì\236\205ë ¥: ");
        if (fgets(array, sizeof(array), stdin) != NULL) {
            array[strcspn(array, "\n")] = '\0';
        }
        while (cur != NULL) {
            if (strcmp(cur->data.name, array) == 0) break;
            prev = cur;
            cur = cur->next;
        }
    }
    else if (choice == 2) {
        printf("í\225\231ë²\210 ì\236\205ë ¥: ");
        scanf("%d", &id);
```

```
  129:         while (cur != NULL) {
  130:             if (cur->data.id == id) break;
  131:             prev = cur;
  132:             cur = cur->next;
  133:         }
  134:     }
  135:
  136:     if (cur == NULL) {
  137:         printf("ì\202-ì \234í\225  í\225\231ì\203\235ì\235\204 ì°¾ì\235\204
ì\210\230 ì\227\206ì\212µë\213\210ë\213¤.\n");
  138:         return head;
  139:     }
  140:
  141:     if (prev == NULL) head = cur->next;
  142:     else prev->next = cur->next;
  143:
  144:     printf("\n%s í\225\231ì\203\235 ì \225ë³´ê°\200
ì\202-ì \234ë\220\230ì\227\210ì\212µë\213\210ë\213¤.\n", cur->data.name);
  145:     free(cur);
  146:     free(prev);
  147:     return head;
  148: }
  149:
  150: // í\225\231ì\203\235 ì \225ë³´ ì\210\230ì \225
  151: void modifyStudent(struct Node* head) {
  152:     struct Node* target = searchStudent(head);
  153:     if (target == NULL) {
  154:         printf("í\225\231ì\203\235ì\235\204 ì°¾ì\235\204 ì\210\230
ì\227\206ì\212µë\213\210ë\213¤.\n");
  155:         return;
  156:     }
  157:     printf("\n[ê¸°ì¡´ ì \225ë³´]\nì\235´ë¦\204: %s\në\202\230ì\235´:
%d\ní\225\231ë²\210: %d\ní\217\211ê•  ì \220ì\210\230: %.1f\n", target->data.name,
target->data.age, target->data.id, target->data.avg);
  158:
  159:     char array[100];
  160:     getchar();
  161:     printf("\nì\203\210ë¡\234ì\232´ ì\235´ë¦\204 ì\236\205ë ¥: ");
  162:     fgets(array, sizeof(array), stdin);
  163:     array[strcspn(array, "\n")] = '\0';
  164:     free(target->data.name);
  165:     target->data.name = (char*)malloc(strlen(array) + 1);
  166:     strcpy(target->data.name, array);
  167:
  168:     printf("ì\203\210ë¡\234ì\232´ ë\202\230ì\235´ ì\236\205ë ¥: ");
  169:     scanf("%d", &target->data.age);
  170:     printf("ì\203\210ë¡\234ì\232´ í\225\231ë²\210 ì\236\205ë ¥: ");
  171:     scanf("%d", &target->data.id);
  172:     printf("ì\203\210 í\217\211ê•  ì \220ì\210\230 ì\236\205ë ¥: ");
  173:     scanf("%f", &target->data.avg);
  174:
  175:     printf("\ní\225\231ì\203\235 ì \225ë³´ê°\200
ì\210\230ì \225ë\220\230ì\227\210ì\212µë\213\210ë\213¤.\n");
  176: }
  177:
  178: // ë©\224ëª¨ë¦¬ í\225´ì \234
  179: void freeAll(struct Node* head) {
  180:     struct Node* temp;
  181:     while (head != NULL) {
  182:         temp = head;
  183:         head = head->next;
  184:         free(temp->data.name);
  185:         free(temp);
  186:     }
  187:     printf("í\224\204ë¡\234ê•¸ë\236¨ì\235\204 ì¢\205ë£\214í\225©ë\213\210ë\213¤.
ë©\224ëª¨ë¦¬ë¥¼ í\225´ì \234í\225©ë\213\210ë\213¤...\n");
  188: }
  189:
  190: int main() {
  191:     struct Node* head = NULL, * tail = NULL;
  192:     int menu;
  193:
  194:     while (1) {
  195:         printf("\n\n========= ë©\224ë\211´ =========\n");
  196:         printf("1. í\225\231ì\203\235 ì \225ë³´ ì\236\205ë ¥\n2. ì \204ì²´
í\225\231ì\203\235 ì¶\234ë ¥\n3. ìµ\234ê³  ì \220ì\210\230 í\225\231ì\203\235
ì¶\234ë ¥\n4. í\225\231ì\203\235 ê²\200ì\203\211 (ì\235´ë¦\204 ë\230\220ë\212\224
í\225\231ë²\210)\n");
  197:         printf("5. í\225\231ì\203\235 ì\202-ì \234 (ì\235´ë¦\204
ë\230\220ë\212\224 í\225\231ë²\210)\n6. í\225\231ì\203\235 ì\210\230ì \225 (ì\235´ë¦\204
ë\230\220ë\212\224 í\225\231ë²\210)\n0. ì¢\205ë£\214\n========================\n");
  198:         printf("\në©\224ë\211´ ì\204 í\203\235: ");
  199:         scanf("%d", &menu);
  200:
  201:         if (menu == 1) {
  202:             struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
  203:             newNode->data = inputStudent();
  204:             newNode->next = NULL;
  205:             if (head == NULL) head = tail = newNode;
  206:             else {
  207:                 tail->next = newNode;
  208:                 tail = newNode;
  209:             }
  210:         }
  211:         else if (menu == 2) printAll(head);
  212:         else if (menu == 3) printTop(head);
  213:         else if (menu == 4) {
  214:             struct Node* found = searchStudent(head);
  215:             if (found)
  216:                 printf("\n[ê²\200ì\203\211 ê²°ê³¼]\nì\235´ë¦\204:
%s\në\202\230ì\235´: %d\ní\225\231ë²\210: %d\ní\217\211ê•  ì \220ì\210\230: %.1f\n",
found->data.name, found->data.age, found->data.id, found->data.avg);
  217:             else
  218:                 printf("í\225\231ì\203\235ì\235\204 ì°¾ì\235\204 ì\210\230
ì\227\206ì\212µë\213\210ë\213¤.\n");
  219:         }
  220:         else if (menu == 5) head = deleteStudent(head);
  221:         else if (menu == 6) modifyStudent(head);
  222:         else if (menu == 0) {
  223:             freeAll(head);
  224:             break;
  225:         }
  226:         else {
  227:             printf("ì\236\230ëª»ë\220\234 ì\236\205ë ¥ì\236\205ë\213\210ë\213¤.
\n");
  228:         }
  229:     }
  230:     return 0;
  231: }
  232:
```