#include <stdio.h>

int main() {

int a[20];

int n, i, j, delete\_index, search\_element;

int duplicate\_flag = 0;

printf("Enter 20 elements for the array:\n");

for (i = 0; i < 20; i++) {

scanf("%d", &a[i]);

}

printf("Array elements with their index values:\n");

for (i = 0; i < 20; i++) {

printf("Index %d: %d\n", i, a[i]);

}

printf("Enter the index of the element you want to delete (0 to 19): ");

scanf("%d", &delete\_index);

if (delete\_index >= 0 && delete\_index < 20) {

for (i = delete\_index; i < 19; i++) {

a[i] = a[i+1];

}

printf("Element at index %d has been deleted.\n", delete\_index);

} else {

printf("Invalid index.\n");

}

for (i = 0; i < 19; i++) {

for (j = i + 1; j < 20; j++) {

if (a[i] == a[j]) {

duplicate\_flag = 1;

break;

}

}

if (duplicate\_flag) {

break;

}

}

if (duplicate\_flag) {

printf("Duplicates found in the array.\n");

} else {

printf("No duplicates found in the array.\n");

}

printf("Enter the element you want to search: ");

scanf("%d", &search\_element);

for (i = 0; i < 20; i++) {

if (a[i] == search\_element) {

printf("Element %d found at index %d.\n", search\_element, i);

break;

}

}

if (i == 20) {

printf("Element %d not found in the array.\n", search\_element);

}

return 0;

}

