#include <stdio.h>

int main() {

int a[100], i, n, pos, val, choice, found;

printf("Enter the number of elements: ");

scanf("%d", &n);

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

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

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

}

do {

printf("\nMenu:\n");

printf("1. Insert\n");

printf("2. Delete\n");

printf("3. Search\n");

printf("4. Display\n");

printf("5. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

if (n >= 100) {

printf("Array is full.\n");

break;

}

printf("Enter the position to insert: ", n);

scanf("%d", &pos);

if (pos < 0 || pos > n) {

printf("Invalid position.\n");

break;

}

printf("Enter the value to insert: ");

scanf("%d", &val);

for (i = n; i > pos; i--) {

a[i] = a[i - 1];

}

a[pos] = val;

n++;

printf("Inserted successfully.\n");

break;

case 2:

if (n == 0) {

printf("Array is empty.\n");

break;

}

printf("Enter the position to delete: ", n - 1);

scanf("%d", &pos);

if (pos < 0 || pos >= n) {

printf("Invalid position.\n");

break;

}

for (i = pos; i < n - 1; i++) {

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

}

n--;

printf("Deleted successfully.\n");

break;

case 3:

printf("Enter the value to search: ");

scanf("%d", &val);

found = 0;

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

if (a[i] == val) {

printf("Value found at position %d\n", i);

found = 1;

break;

}

}

if (!found) {

printf("Value not found.\n");

}

break;

case 4:

printf("Array elements: ");

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

printf("%d ", a[i]);

}

printf("\n");

break;

case 5:

printf("Exiting program.\n");

return 0;

default:

printf("Invalid choice.\n");

}

} while (1);

return 0;

}

A screenshot of a computer program

AI-generated content may be incorrect.