EXPERIMENT [7](insert,delete search)

CODE:

#include <stdio.h>

int main() {

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

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter %d elements:\n", n);

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

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

}

do {

printf("\n----- MENU -----\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:

// Insert

printf("Enter position (0 to %d): ", n);

scanf("%d", &pos);

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

printf("Invalid position!\n");

break;

}

printf("Enter value to insert: ");

scanf("%d", &val);

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

arr[i] = arr[i - 1];

}

arr[pos] = val;

n++;

printf("Inserted successfully.\n");

break;

case 2:

// Delete

printf("Enter position to delete (0 to %d): ", n - 1);

scanf("%d", &pos);

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

printf("Invalid position!\n");

break;

}

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

arr[i] = arr[i + 1];

}

n--;

printf("Deleted successfully.\n");

break;

case 3:

// Search

printf("Enter value to search: ");

scanf("%d", &val);

found = 0;

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

if(arr[i] == val) {

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

found = 1;

break;

}

}

if(!found) {

printf("Not found.\n");

}

break;

case 4:

// Display

printf("Current array: ");

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

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

}

printf("\n");

break;

case 5:

printf("Exiting...\n");

break;

default:

printf("Invalid choice! Try again.\n");

}

} while(choice != 5);

return 0;

}

OUTPUT:

