# Array Operations

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#include <stdio.h>

#define SIZE 100

int main() {

int arr[SIZE], n, choice, pos, value, i;

printf("Enter number of elements: ");

scanf("%d", &n);

printf("Enter elements:\n");

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

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

}

do {

printf("\nArray Operations Menu:\n");

printf("1. Display\n");

printf("2. Insert\n");

printf("3. Delete\n");

printf("4. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

printf("Array elements: ");

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

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

}

printf("\n");

break;

case 2:

if (n == SIZE) {

printf("Array is full, cannot insert.\n");

} else {

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

scanf("%d", &pos);

printf("Enter value: ");

scanf("%d", &value);

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

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

}

arr[pos] = value;

n++;

printf("Element inserted.\n");

}

break;

case 3:

if (n == 0) {

printf("Array is empty, nothing to delete.\n");

} else {

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

scanf("%d", &pos);

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

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

}

n--;

printf("Element deleted.\n");

}

break;

case 4:

printf("Exiting program.\n");

break;

default:

printf("Invalid choice.\n");

}

} while (choice != 4);

return 0;

}

