

```

#include <stdio.h>

#define MAX_SIZE 100

int main() {
    int arr[MAX_SIZE], n, i, pos, val, choice;

    printf("Enter the size of the array: ");
    scanf("%d", &n);

    printf("Enter %d elements of the array: \n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    do {
        printf("\nArray Operations:\n");
        printf("1. Insert\n");
        printf("2. Delete\n");
        printf("3. Display\n");
        printf("4. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                printf("Enter the position where you want to insert an element: ");
                scanf("%d", &pos);
                if (pos <= 0 || pos > n + 1) {
                    printf("Invalid position! Please enter a valid position.\n");
                } else {
                    printf("Enter the value to insert: ");
                    scanf("%d", &val);
                    for (i = n - 1; i >= pos - 1; i--) {
                        arr[i + 1] = arr[i];
                    }
                    arr[pos - 1] = val;
                    n++;
                }
                break;
            case 2:
                printf("Enter the position where you want to delete an element: ");
                scanf("%d", &pos);
                if (pos <= 0 || pos > n) {

```

```
        printf("Invalid position! Please enter a valid position.\n");
    } else {
        for (i = pos - 1; i < n - 1; i++) {
            arr[i] = arr[i + 1];
        }
        n--;
    }
    break;
case 3:
    printf("Array elements are: ");
    for (i = 0; i < n; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");
    break;
case 4:
    printf("Exiting the program.\n");
    break;
default:
    printf("Invalid choice! Please enter a valid choice.\n");
}
} while (choice != 4);

return 0;
}
```