main.c

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```c
#include <stdio.h>
#define SIZE 100
int main() {
    int arr[SIZE], n = 0, choice, i, pos, val, found;
    while (1) {
        printf("\n1.Insert  2.Delete  3.Find  4.Display  5.Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);
        switch (choice) {
        case 1: // Insert
            if (n >= SIZE) {
                printf("Array is full!\n");
                break;
            }
            printf("Enter position (0 to %d): ", n);
            scanf("%d", &pos);
            if (pos < 0 || pos > n) {
                printf("Invalid position!\n");
                break;
            }
            printf("Enter value: ");
            scanf("%d", &val);
            for (i = n; i > pos; i--)
                arr[i] = arr[i - 1];
            arr[pos] = val;
            n++;
```

Output Clear

```
1.Insert  2.Delete  3.Find  4.Display  5.Exit
Enter your choice: 1
Enter position (0 to 0): 0
Enter value: 10

1.Insert  2.Delete  3.Find  4.Display  5.Exit
Enter your choice:
```

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```
        break;
    case 2: // Delete
        if (n == 0) {
            printf("Array is empty!\n");
            break;
        }
        printf("Enter position (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--;
        break;
    case 3: // Find
        printf("Enter value to find: ");
        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;
            }
```

Output | Clear

```
1.Insert  2.Delete  3.Find  4.Display  5.Exit
Enter your choice: 1
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1.Insert  2.Delete  3.Find  4.Display  5.Exit
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```
                printf("Found at position %d\n", i);
                found = 1;
                break;
            }
        }
        if (!found)
            printf("Value not found.\n");
        break;
    case 4: // Display
        if (n == 0)
            printf("Array is empty.\n");
        else {
            printf("Array elements: ");
            for (i = 0; i < n; i++)
                printf("%d ", arr[i]);
            printf("\n");
        }
        break;
    case 5: // Exit
        return 0;
    default:
        printf("Invalid choice!\n");
    }
}
return 0;
}
```

Output | Clear

```
1.Insert  2.Delete  3.Find  4.Display  5.Exit
Enter your choice: 1
Enter position (0 to 0): 0
Enter value: 10

1.Insert  2.Delete  3.Find  4.Display  5.Exit
Enter your choice:
```