

```
#include <stdio.h>
#include <stdlib.h>
```

```
Void main() {
    Int arr[50], n = 0, choice, value, l, position;
```

```
    Printf("Enter the number of elements : ");
    Scanf("%d", &n);
```

```
    Printf("Enter %d elements:\n", n);
    For (l = 0; l < n; i++) {
        Scanf("%d", &arr[i]);
    }
```

```
    While (1) {
        Printf("\nArray Operations Menu:\n");
        Printf("1. Display Array\n");
        Printf("2. Insert at Beginning\n");
        Printf("3. Insert at Position\n");
        Printf("4. Insert at End\n");
        Printf("5. Delete at Beginning\n");
        Printf("6. Delete at Position\n");
        Printf("7. Delete at End\n");
        Printf("8. Exit\n");
```

```
        Printf("Enter your choice: ");
        Scanf("%d", &choice);
```

```
        Switch (choice) {
            Case 1:
                If (n == 0) {
                    Printf("Array is empty.\n");
                } else {
                    Printf("Current Array: ");
                    For (l = 0; l < n; i++) {
                        Printf("%d ", arr[i]);
                    }
                    Printf("\n");
                }
                Break;
```

```
            Case 2:
                If (n >= 50) {
                    Printf("Array is full. Cannot insert at the beginning.\n");
                } else {
```

```
Printf("Enter value to insert: ");
Scanf("%d", &value);
For (l = n; l > 0; i--) {
    Arr[i] = arr[l - 1];
}
Arr[0] = value;
N++;
}
Break;
```

Case 3:

```
If (n >= 50) {
    Printf("Invalid position.\n");
} else {
    Printf("Enter value to insert: ");
    Scanf("%d", &value);
    Printf("Enter position to insert: ", n);
    Scanf("%d", &position);
    If (position >= 0 && position <= n) {
        For (l = n; l > position; i--) {
            Arr[i] = arr[l - 1];
        }
        Arr[position] = value;
        N++;
    } else {
        Printf("Invalid position.\n");
    }
}
Break;
```

Case 4:

```
If (n >= 50) {
    Printf("Array is full. Cannot insert at the end.\n");
} else {
    Printf("Enter value to insert: ");
    Scanf("%d", &value);
    Arr[n] = value;
    N++;
}
Break;
```

Case 5:

```
If (n > 0) {
    For (l = 0; l < n - 1; i++) {
        Arr[i] = arr[l + 1];
    }
}
```

```
    }  
    n--;  
} else {  
    Printf("Array is empty.\n");  
}  
Break;
```

Case 6:

```
Printf("Enter position to delete: ", n - 1);  
Scanf("%d", &position);  
If (position >= 0 && position < n) {  
    For (l = position; l < n - 1; i++) {  
        Arr[i] = arr[l + 1];  
    }  
    n--;  
} else {  
    Printf("Invalid position.\n");  
}  
Break;
```

Case 7:

```
If (n > 0) {  
    n--;  
} else {  
    Printf("Array is empty.\n");  
}  
Break;
```

Case 8:

```
Exit(0);  
Break;
```

Default:

```
Printf("Invalid choice. Please enter valid option.\n");
```

```
    }  
}  
}
```