

Ex P Q Write a C program to implement Array operations such as insert, delete and display.

Aim: To write a C program to implement Array operations such as insert, delete and display.

Algorithm:

- *. start.
- *. Input the size and elements of the array.
- *. provide a menu for insert, delete, and display.
- *. perform the chosen operation.
- *. Repeat until, exit.
- *. stop.

Program:

```
#include <stdio.h>

int main() {
    int a[100], n, i, pos, val, choice;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    printf("Enter elements: ");
    for(i=0; i<n; i++)
        scanf("%d", &a[i]);

    printf("1. Insert 2. Delete 3. Display\n");
    scanf("%d", &choice);

    if (choice == 1) {
        printf("Enter position and value: ");
        scanf("%d %d", &pos, &val);
        for (i=n; i>=pos; i--)
            a[i] = a[i-1];
        a[pos-1] = val;
        n++;
    }
    else if (choice == 2) {
        printf("Enter position to delete: ");
        scanf("%d", &pos);
        for (i=pos-1; i<n-1; i++)
            a[i] = a[i+1];
        n--;
    }
}
```

```
printf("Array:");
```

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

```
printf("%d", a[i]);
```

```
return 0;
```

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Output:

Enter number of elements: 2

Enter elements : 1 2

1. insert 2. delete 3. Display

1

Enter position and value : 1 1

Array : 1 1 2

Result: Thus, the program executed successfully.