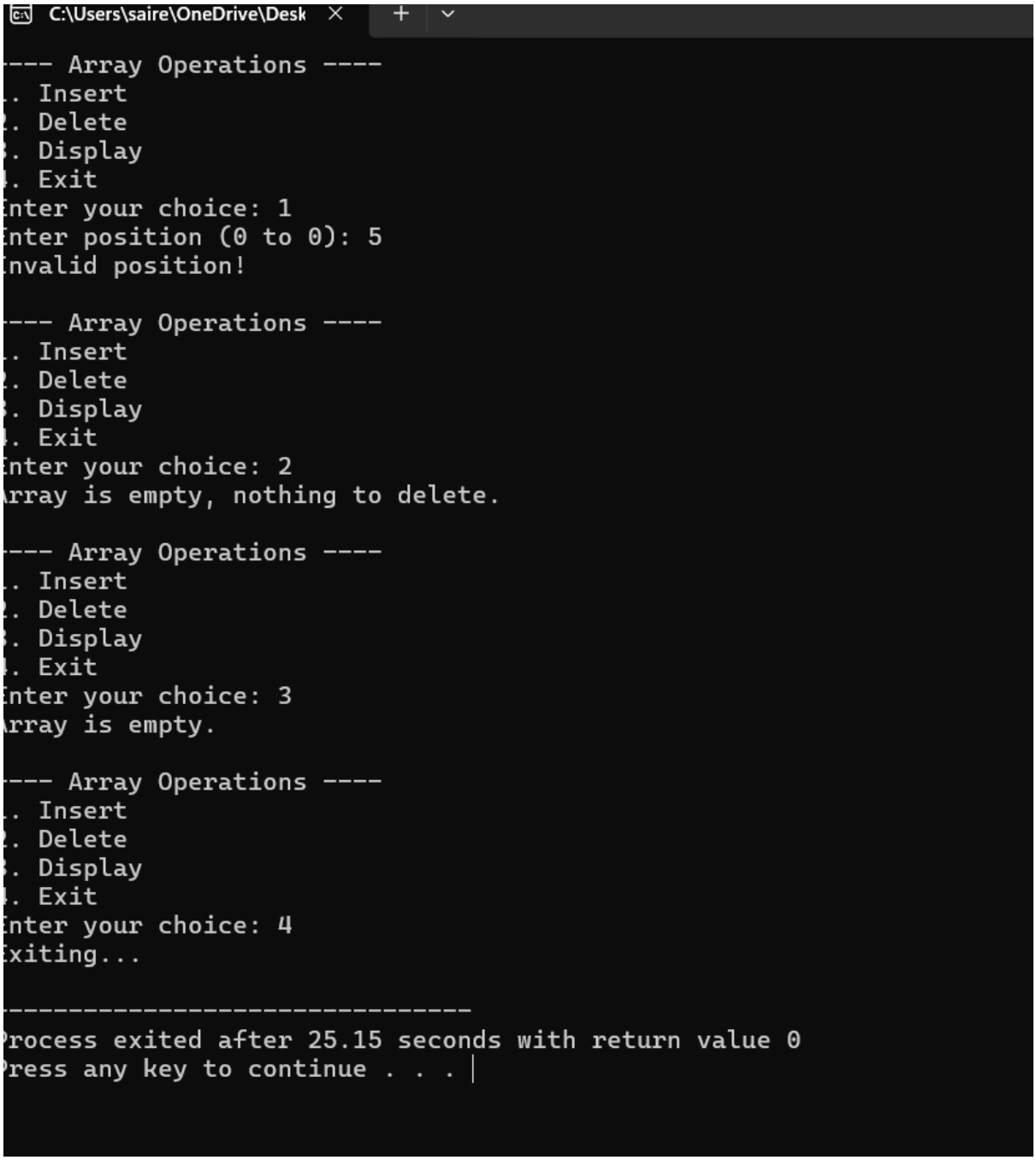
7. Write a C program to implement Array operations such as Insert , Delete , and Display.

```
#include <stdio.h>

int array[SIZE];

int n = 0;

void display()

{

   if (n == 0)

{

      printf("Array is empty.\n");

      return;

   }

   printf("Array elements: ");

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

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

   }

   printf("\n");

}


void insert()

 {

   int pos, value;

   if (n == SIZE) {

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

      return;

   }

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

   scanf("%d", &pos);
```

```
    if (pos < 0 || pos > n) {
        printf("Invalid position!\n");
        return;
    }

    printf("Enter value to insert: ");
    scanf("%d", &value);

    for (int i = n; i > pos; i--) {
        array[i] = array[i - 1];
    }
array[pos] = value;
    n++;
  printf("Element inserted.\n");
}
void deleteElement() {
    int pos;
    if (n == 0) {
        printf("Array is empty, nothing to delete.\n");
        return;
    }
 printf("Enter position to delete (0 to %d): ", n - 1);
    scanf("%d", &pos);
    if (pos < 0 || pos >= n) {
        printf("Invalid position!\n");
        return;
    }
```

```
    for (int i = pos; i < n - 1; i++) {
        array[i] = array[i + 1];
    }
   n--;
 printf("Element deleted.\n");
}

int main() {
    int choice;
 do {
        printf("\n---- Array 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: insert(); break;
            case 2: deleteElement(); break;
            case 3: display(); break;
            case 4: printf("Exiting...\n"); break;
            default: printf("Invalid choice!\n");
        }
    } while (choice != 4);

    return 0;
}
```

OUTPUT


C:\Users\saire\OneDrive\Desk
--- Array Operations ----
. Insert
. Delete
. Display
. Exit
nter your choice: 1
nter position (0 to 0): 5
nvalid position!
--- Array Operations ----
. Insert
. Delete
. Display
. Exit
nter your choice: 2
rray is empty, nothing to delete.
--- Array Operations ----
. Insert
. Delete
. Display
. Exit
nter your choice: 3
rray is empty.
--- Array Operations ----
. Insert
. Delete
. Display
. Exit
nter your choice: 4
xiting...
rocess exited after 25.15 seconds with return value 0
ress any key to continue . . .