1)

#include <iostream>

using namespace std;

int arr[100];

int n = 0;

void create() {

    cout << "Enter number of elements: ";

    cin >> n;

    cout << "Enter " << n << " elements: ";

    for (int i = 0; i < n; i++) {

        cin >> arr[i];

    }

}

void display() {

    cout << "Array elements: ";

    for (int i = 0; i < n; i++) {

        cout << arr[i] << " ";

    }

    cout << endl;

}

void insert() {

    int pos, elem;

    cout << "Enter position (1 to " << n + 1 << "): ";

    cin >> pos;

    cout << "Enter element to insert: ";

    cin >> elem;

    for (int i = n; i >= pos; i--) {

        arr[i] = arr[i - 1];

    }

    arr[pos -1] = elem;

    n++;

void deleteElement() {

    int pos;

    cout << "Enter position (1 to " << n << "): ";

    cin >> pos;

    for (int i = pos - 1; i < n - 1; i++) {

        arr[i] = arr[i + 1];

    }

    n--;

}

void linearSearch() {

    int elem;

    bool found = false;

    cout << "Enter element to search: ";

    cin >> elem;

    for (int i = 0; i < n; i++) {

        if (arr[i] == elem) {

            cout << "Element found at position " << i + 1 << endl;

            found = true;

            break;

        }

    }

    if (!found) {

        cout<< "Element not found!" << endl;

    }

}

int main() {

    int choice;

    do {

        cout<<"\n \t MENU "<<endl;

        cout<<"1. CREATE"<<endl;

        cout<<"2. DISPLAY"<<endl;

        cout<<"3. INSERT"<<endl;

        cout<<"4. DELETE"<<endl;

        cout<<"5. LINEAR SEARCH" <<endl;

        cout<<"6. EXIT"<<endl;

        cout<< "Enter your choice: ";

        cin >> choice;

        switch (choice) {

            case 1: create(); break;

            case 2: display(); break;

            case 3: insert(); break;

            case 4: deleteElement(); break;

            case 5: linearSearch(); break;

            case 6: cout<<"Exiting program..."<<endl; break;

            default: cout<<"Invalid choice! Try again."<<endl;

        }

    } while (choice != 6);

    return 0;

}