DS PRACTICAL 01

AIM :- ARRAY OPERATION

[A] : Take a number from user and write a program to search a specific number is present or not.

PROGRAM:-

```c
#include <stdio.h>

int main() {
    int n, i, item, found = 0;


    printf("Enter the number of elements: ");
    scanf("%d", &n);

    if (n <= 0) {
        printf("Number of elements should be greater than 0.\n");
        return 1;
    }


    int a[n]; // Declare the array with size n


    printf("Enter the %d array elements:\n", n); //Input array elements
    for (i = 0; i < n; i++) {
        scanf("%d", &a[i]);
    }


    printf("Enter the element you want to search: "); // Input the item to search
    scanf("%d", &item);


    for (i = 0; i < n; i++)    // Search for the item
    {
        if (item == a[i]) {
            found = 1;
            printf("%d is found at position %d\n", item, i + 1);
            break;
        }
    }

    if (found == 0) {
        printf("Item %d is not found \n", item);
    }

    return 0;
}
```

OUTPUT

```
Enter the number of elements: 5
Enter the 5 array elements:
11 22 33 44 55
Enter the element you want to search: 22
22 is found at position 2
```

[B] :- Create an array of any size. Write a program to update or modify some element from array.

PROGRAM:-

```c
#include<stdio.h>
int main(){
    int a[100], n, i, j, update, item, pos=0, found=0, new_element;
    printf("enter the no of element\n");
    scanf("%d", &n);
    printf("enter the array elements\n");
    for (i=0; i<n; i++){
        scanf("%d", &a[i]);
    }
    printf("how many element do want to update\n");
    scanf("%d", &update);
    for( j=0 ; j<update ; j++){
        printf("enter the element you want to update\n");
        scanf("%d", &item);
        for (i=0; i<n; i++)
        {
            if (item==a[i])
            {
                pos=i;
                found=1;
                printf("item is found at %d position\n",pos+1);
                printf("enter the new element\n");
                scanf("%d", &new_element);
                a[i]=new_element;
            }
        }
        if(found==0)
        {
            printf("item is not in array\n");
        }

        printf("updated array :\n");
        for(i=0;i<n;i++)
```

```
        {
            printf("%d\n",a[i]);
        }
    }
}
```

OUTPUT

```
enter the no of element
5
enter the array elements
11 22 44 55 66
how many element do want to update
1
enter the element you want to update
22
item is found at 2 position
enter the new element
99
updated array :
11
99
44
55
66
shreyasgajananswamitalankar@SHREYASs-MacBook-Air output % ;2B
```

GITHUB LINK OF PRACTICAL No. 01 :-
https://github.com shreyastalankar/DATA-STRUCTURE-PRACTICALS /