## **OBJECT –**

## **Write a program to create array,insert elements,delete elements and traverse elements of an array using switch statement.**

**DESCRIPTION-**

**1 Array:-**

* **Array are the data type that is used to represent alarge number of homogeneous value.**
* **An array is a set of pairs,indexand value.**
* **An array can be defined as a collection of homogeneous element ,in the form of index/value/pairs,stored in consecutive memory locations.**
* **An array always has a predefined size and the elementsof the array are referenced by means of an index/subscript.**

**2. switch statement:-**

**Switch case elements are thea substitute for long if statements that compare a variable to several integral values**

* **The switch statement is a multiway branch statement. It provides an esay way to dispatch execution to different parts of code based on the value of the execution.**
* **Switch is a case control statement that allowas a value to change control of execution.**

**Syntax:**

**Switch(n)**

**{**

**Case 1: //code to be executed if n=1;**

**break;**

**case 2://code to be executed if n=2;**

**break;**

**default: //code to be executed if n doesn’t match any cases**

**PROGRAM:-**

**#include<stdio.h> // header file**

**#include<conio.h> // header file**

**Void main()**

**{**

**Clrscr();**

**Int a[10],I,ub,max=9,num,s,lb,pos,choice; //declaration**

**Printf(“enter the size of array”);**

**Scanf(“%d”,&s);**

**Printf(“\n enter the elements of array”);**

**For(i=o;i<s;i++) //for loop**

**{**

**Scanf(“%d”,&a[i];**

**ub=s-1;**

**}**

**Printf(“array operation”);**

**Printf(“1.for insertion at starting\n2.for insertion at given location\n3.for insertion at end\n.4 for deletion at starting\n.5 for deletion at given location\n.6for deletion at end\n7.for exit\n”);**

**Do //do-while loop**

**{**

**Printf(“\n enter the choice”);**

**Scanf(“%d”,&choice);**

**Switch(choice) //switch statements**

**{**

**Case 1: lb=0;**

**Printf(“enter a no. to insert:”);**

**Scanf(“%d”,&num);**

**If(ub==max) //if condition**

**{**

**Printf(“array is full”);**

**}**

**Else //else condition**

**{**

**For(i=ub;i>=lb;i++) //for loop**

**{**

**a[i+1]=a[i];**

**a[ib]=n;**

**ub++;**

**printf(“\n array after insertion ”);**

**for(i=0;i<=ub;i++) //for loop**

**printf(“%d”,a[i]);**

**}  
 break; //break statement**

**Case 2:**

**Printf(“enter the location to insert the element”);**

**Scanf(“%d”,&num);**

**Lb=pos-1;**

**If(ub==max)**

**Printf(“array is full”);**

**Else**

**{**

**For(i=ub;i>=lb;i++)**

**a[i+1]=a[i]**

**a[lb]=n;**

**ub++;**

**printf(“\n array after insertion =\n”);**

**for(i=0;i<=ub;i++)**

**printf(“%d”,a[i]);**

**}**

**break;**

**Case 3:**

**Printf(“enter the no. to insert”);**

**Scanf(“%d”,num);**

**If(ub==max)**

**Printf(“array is full”);**

**Else**

**{**

**Ub=ub+1;**

**a[ub]=num;**

**printf(“\n array after insertion ”);**

**for(i=0;i<=ub;i++)**

**printf(“%d”,a[I]);**

**}**

**break;**

**Case 4: if(ub==-1)**

**Printf(“array is empty ”);**

**Else**

**{**

**Ib=0;**

**a[lb]=’\o’;**

**for(i=lb;i<ub;i++)**

**a[i]==a[i+1];**

**ub--;**

**printf(“array after deleting element”);**

**for(i=0;i<=ub; i++)**

**printf(“%d”,a[i]);**

**}**

**break;**

**Case 5: printf(“enter the location to delete element”);**

**Scanf(“%d”,&pos);**

**Lb=pos-1;**

**If(ub==-1)**

**Printf(“array is empty”);**

**Else**

**{**

**a[lb]=’\o’;**

**for(i=lb;i<ub;i++)**

**a[i]=a[i+1]**

**ub--;**

**printf(“\n array after deleting element”);**

**for(i=0’i<ub;i++)**

**printf(“%d”,a[i]);**

**}**

**break;**

**Case 6: if(ub==-1)**

**Printf(“array is empty”);**

**Else**

**{**

**a[lb]=’\o’;**

**ub--;**

**printf(“\n array after the deletion of last element”);**

**for(i=0;i<ub;i++)**

**printf(“%d”,a[i]);**

**}**

**break;**

**Case 7: for(i=0;i<ub;i++)**

**Printf(“%d”,a[i]);**

**break;**

**Case 8: break;**

**Default:printf(“you entered wrong choice”);**

**}**

**}while (choice!=0)**

**getch();**

**}**

