Experiment No: 01

Experiment Name:

1.1: A program to insert an element into array at a specific position.

1.2: A program to delete an element into array at a specific position

1.3: A program to update an element into array at a specific position.

Objectives:

To study , write program and check its results that how an element insert , delete and update into array at a specific position.

Pseudo Code 1.1:

```
#include<stdio.h>
main()
{
    int n,i,j,v;
    printf("Enter the number of element:\n");
    scanf("%d",&n);
    printf("Input %d element:\n",n);
    int a[n];
    for(i=0;i<n;i++)
    scanf("%d",&a[i]);
    printf("Insert array position:\n");
    scanf("%d",&i);
    printf("Insert array value:\n");
    scanf("%d",&v);
    if(i>=n)
    a[n]=v;
    else
{
    for(j=n;j>i;j--)
    a[j]=a[j-1];
    a[j]=v;
}
    printf("The present array is:\n");
    for(j=0;j<n+1;j++)
    printf("%d\n",a[j]);

}
```

Result 1.1:

Pseudo Code 1. 2:

```
#include<stdio.h>
int main()
{
    int i,c,n;
    printf("Enter the number of element an array:\n");
    scanf("%d",&n);
    int ara[n];
    printf("Enter %d elements \n",n);
    for(c=0;c<n;c++)
    scanf("%d",&ara[c]);
    printf("Enter the position to delete an element\n");
    scanf("%d",&i);
    if(i>=n)
    printf("delete is not possible\n");
    else
{
    for(c=i+1;c<n;c++)
    ara[c-1]=ara[c];
    printf("Resultant array is\n");
    for(c=0;c<n-1;c++)
    printf("% d",ara[c]);
}
    return 0;
}
```

Result 1.2:

Pseudo Code 1. 3:

```
#include<stdio.h>
main()
{
    int i,j,v,n;
    printf("Enter the number of array element \n");
    scanf("%d",&n);
    int a[n];
    printf("Enter the value\n");
    for(i=0;i<n;i++)
    scanf("%d",&a[i]);
    printf("Enter the update value\n");
    scanf("%d",&v);
  printf("Enter the position\n");
    scanf("%d",&i);
    if(i>=n)
    printf("update is not possible\n");
    else
{
    a[i]=v;
}
    printf("The update array is\n");
    for(i=0;i<n;i++)
{
    printf("%d \n",a[i]);
}
}
```

Result 1.3:

Discussion:

First I write algorithm of insert ,delete and update an element into array at a specific position.Finally I easily write and running the three programs. I learned that for insert,if the insert position is greater than the maximum size of array then it automatic inserted the last index of array because array is a sequenced of index.for delete,if the delete position is greater than the maximum size of array then delete is not possible.At last for update, if the update position is greater than maximum size of array then update is impossible.