**DATA STRUCTURES AND ALGORITHM**

**ASSIGNMENT -2**

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**Question:** Write a C- program on switch statement to read input in array and perform the given task.

1. Insertion
2. Deletion
3. Searching
4. Display

#include <stdio.h>

#include <stdlib.h>

int main()

{

int a,j,array[10];

void insert()

{

printf("Enter the values to be inserted: ");

for (int i=0;i<10;i++)

{

scanf("%d",&array[i]);

}

}

void delete()

{

int del;

printf("Enter the number to be deleted: ");

scanf("%d",&del);

for (int j=0;j<10 || array[j]!='\0';j++)

{

if(array[j]==del)

{

int k;

for( k=j;k<10;k++)

{

array[k]=array[k+1];

}

array[k]='\0';

break;

}

}

}

void search()

{

int search;

printf("Enter the value to search:");

scanf("%d",&search);

for (int k=0;k<10;k++)

{

if(array[k]==search)

{

printf("The position of %d in the array %d is:",search,(k+1));

}

}

}

void display()

{

printf("The elements in the array are:\n");

for ( int l=0;l<10;l++)

{

printf("%d\n",array[l]);

}

}

do{

printf("\n1.Insert\n2.Delete\n3.Search\n4.Display\n5.Exit\n\nEnter your choice from (1 to 5):");

scanf("%d",&a);

if(!(a<6 && a>0))

{

printf("\n\nEnter the right choice!\n\n\n");

}

switch (a)

{

case 1:

insert();

break;

case 2:

delete();

break;

case 3:

search();

break;

case 4:

display();

break;

case 5:

printf("Exit");

exit(0);

break;

}

}while(1);

}

