DATE:-20/09/22

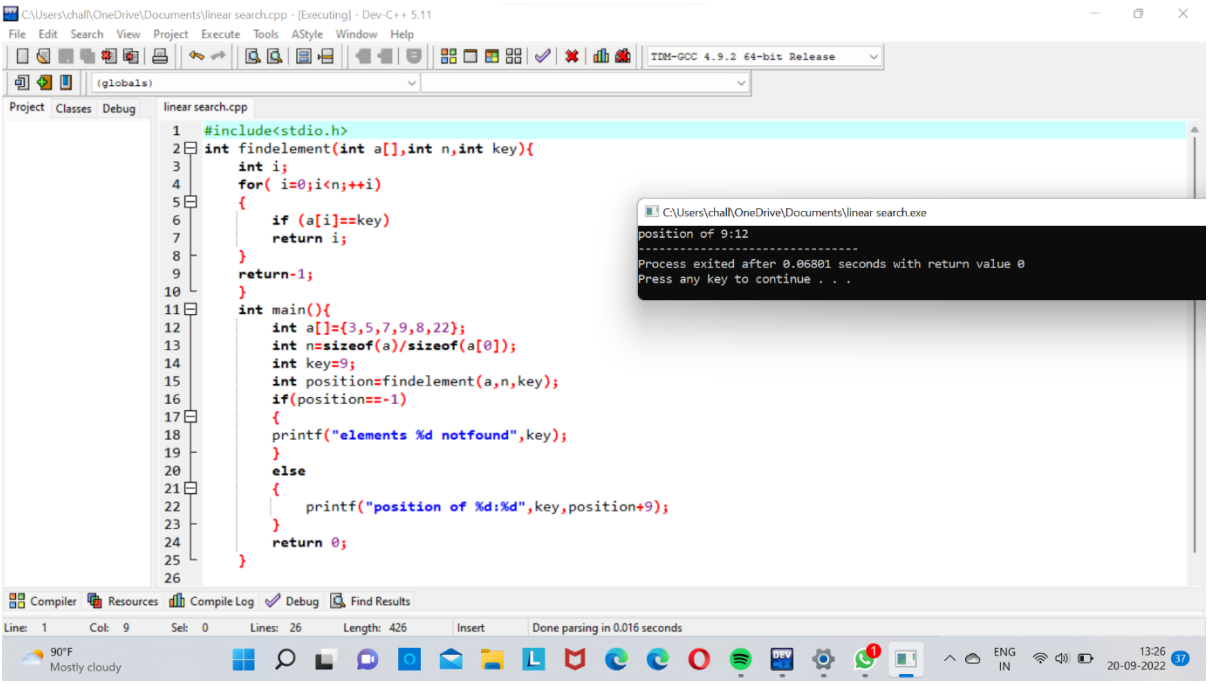
COURSE NAME:-DATA STRUCTURES FOR EXPRESSION EVALUATION

COURSE CODE:-CSA0374

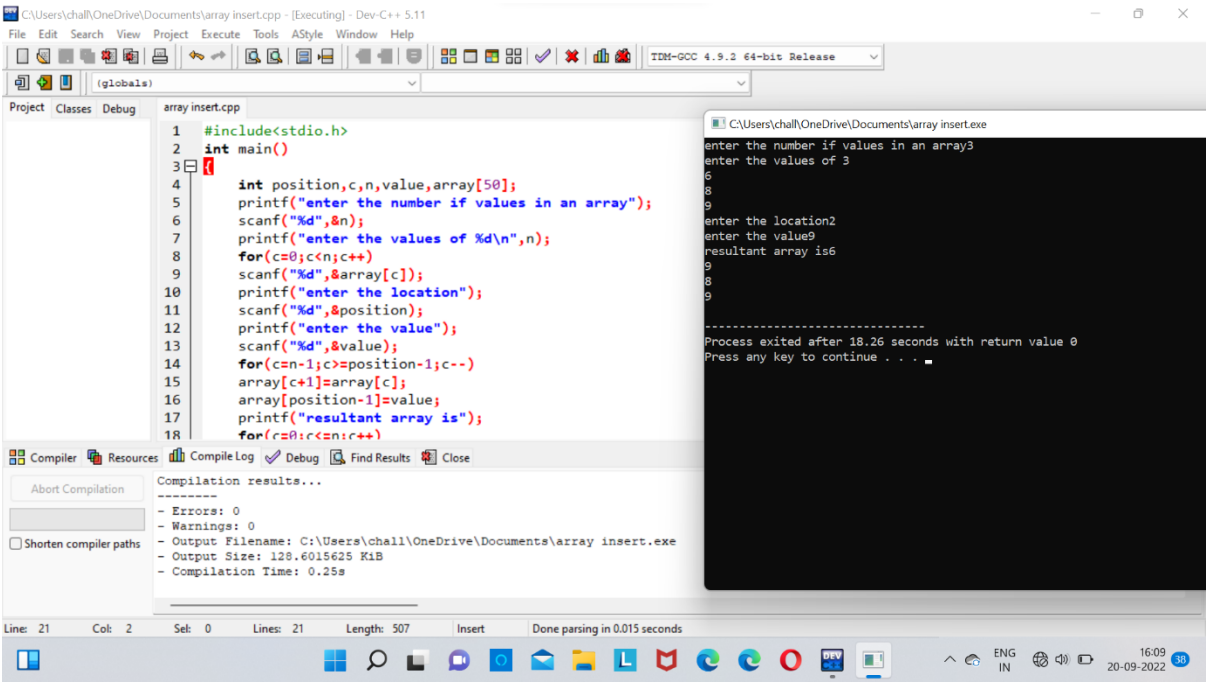
NAME OF THE STUDENT:-CH.INDHU PRIYA

REGNO:-192111191

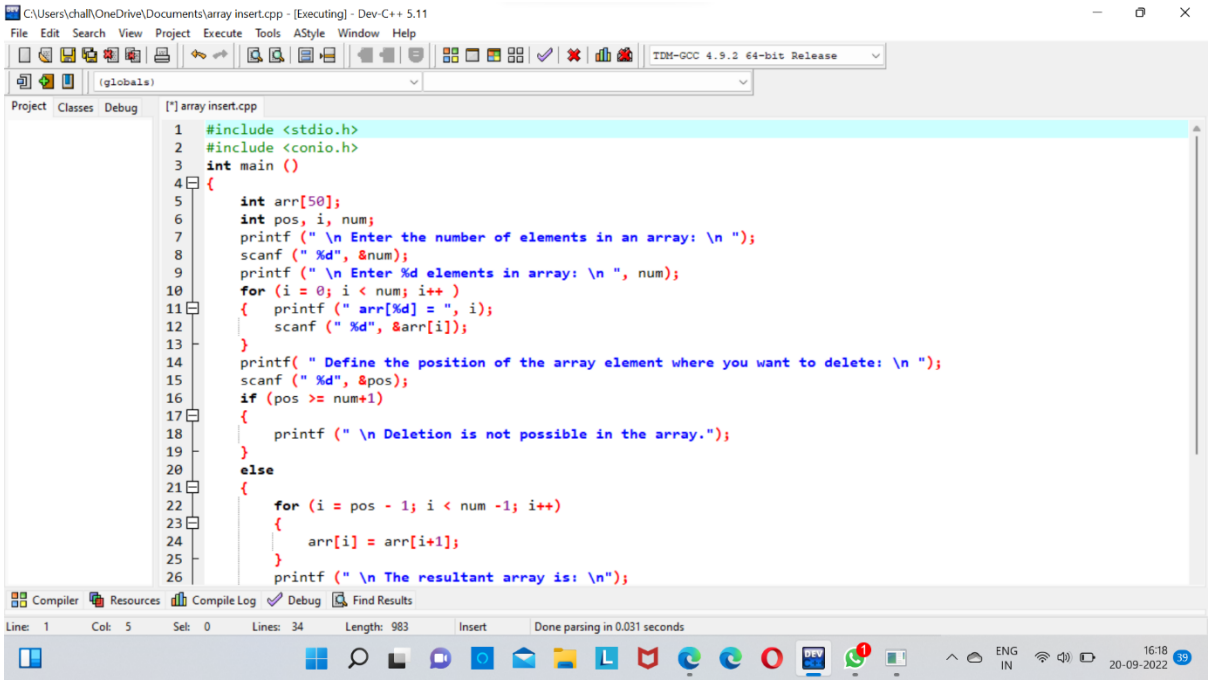
EXPERIMENT:-7(ARRAY OPERATIONS)

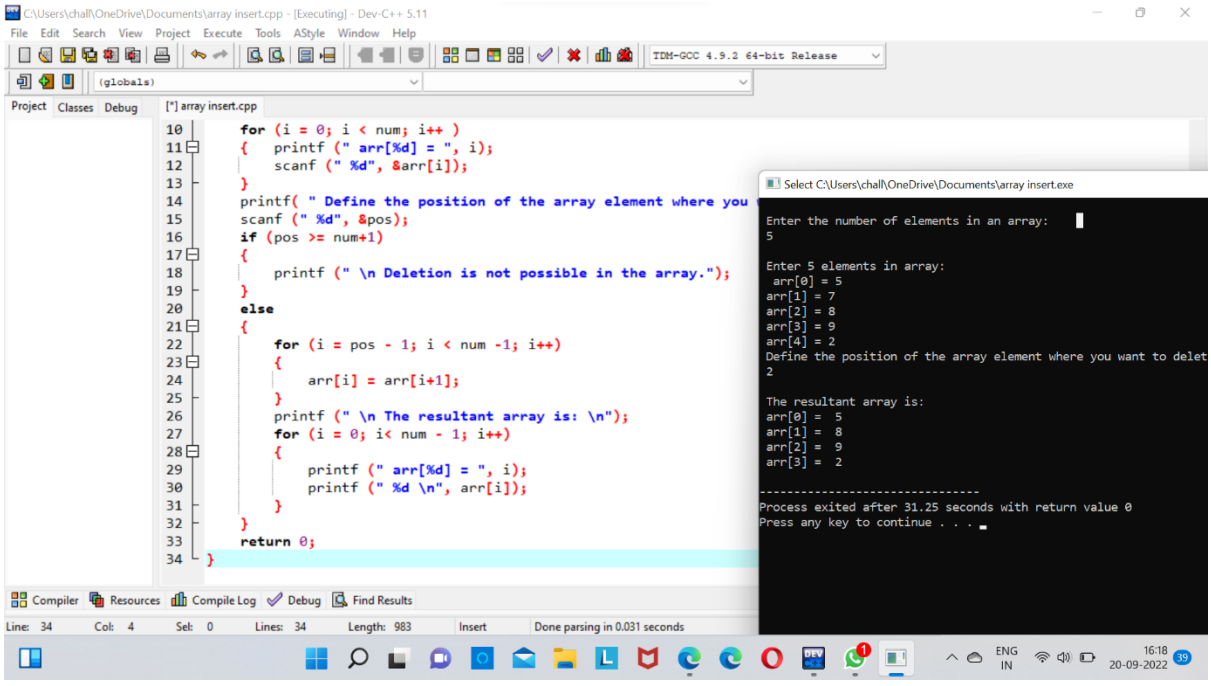


INSERTION OF ARRAY:-

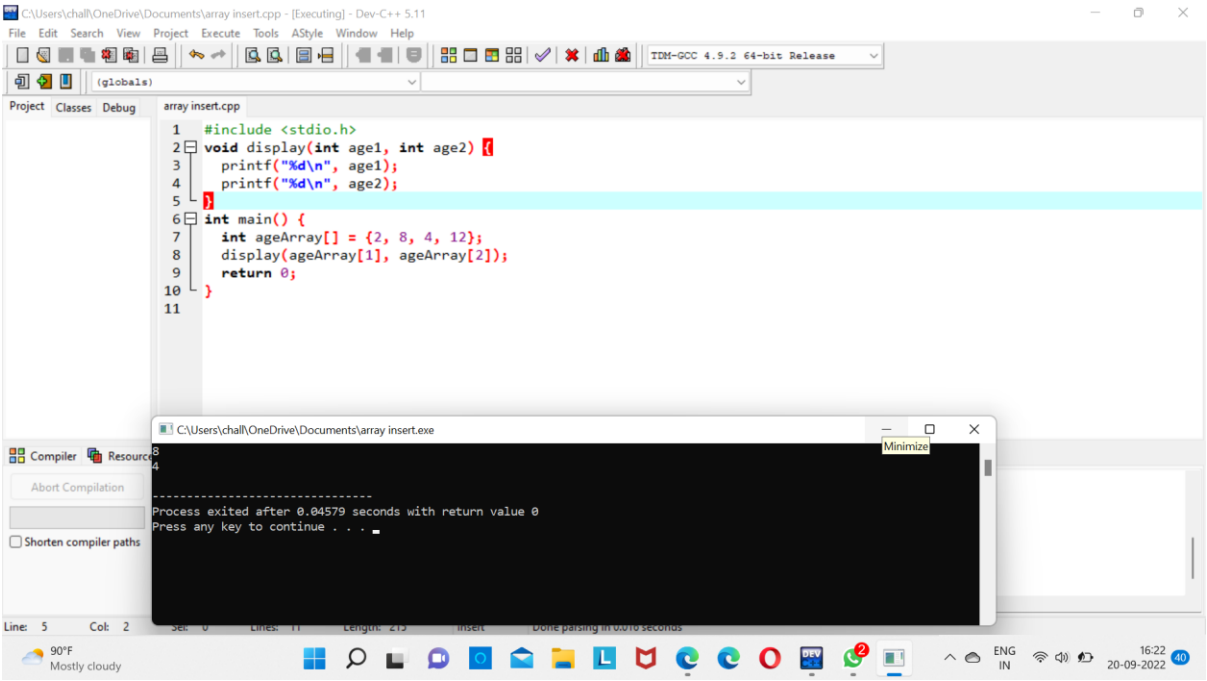


DELETION:-

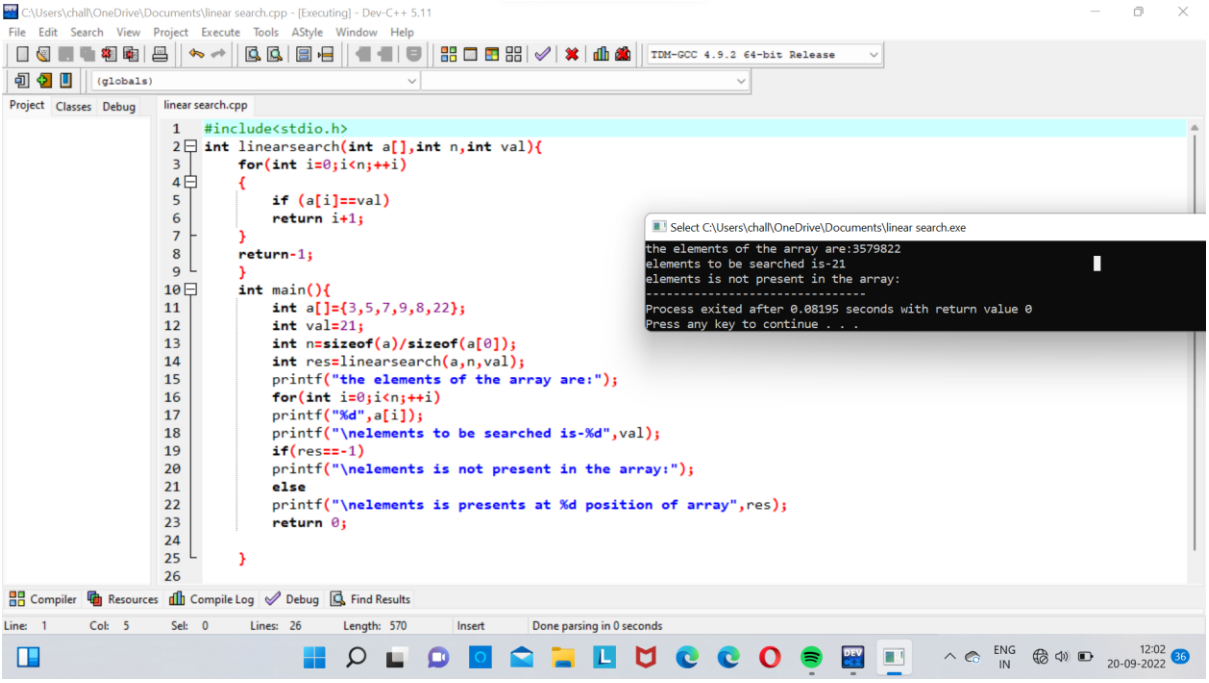

C:\Users\chall\OneDrive\Documents\array insert.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
[*] array insert.cpp
#include <stdio.h>
#include <conio.h>
int main ()
{
int arr[50];
int pos, i, num;
printf (" \n Enter the number of elements in an array: \n ");
scanf (" %d", &num);
printf (" \n Enter %d elements in array: \n ", num);
for (i = 0; i < num; i++)
{ printf (" arr[%d] = ", i);
scanf (" %d", &arr[i]);
}
printf(" Define the position of the array element where you want to delete: \n ");
scanf (" %d", &pos);
if (pos >= num+1)
{
printf (" \n Deletion is not possible in the array.");
}
else
{
for (i = pos - 1; i < num -1; i++)
{
arr[i] = arr[i+1];
}
printf (" \n The resultant array is: \n");
Compiler Resources Compile Log Debug Find Results
Line: 1 Col: 5 Sel: 0 Lines: 34 Length: 983 Insert Done parsing in 0.031 seconds
ENG IN 16:18 20-09-2022


C:\Users\chall\OneDrive\Documents\array insert.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
[*] array insert.cpp
for (i = 0; i < num; i++)
{ printf (" arr[%d] = ", i);
scanf (" %d", &arr[i]);
}
printf(" Define the position of the array element where you
scanf (" %d", &pos);
if (pos >= num+1)
{
printf (" \n Deletion is not possible in the array.");
}
else
{
for (i = pos - 1; i < num -1; i++)
{
arr[i] = arr[i+1];
}
printf (" \n The resultant array is: \n");
for (i = 0; i< num - 1; i++)
{
printf (" arr[%d] = ", i);
printf (" %d \n", arr[i]);
}
}
return 0;
}
Select C:\Users\chall\OneDrive\Documents\array insert.exe
Enter the number of elements in an array:
5
Enter 5 elements in array:
arr[0] = 5
arr[1] = 7
arr[2] = 8
arr[3] = 9
arr[4] = 2
Define the position of the array element where you want to delet
2
The resultant array is:
arr[0] = 5
arr[1] = 8
arr[2] = 9
arr[3] = 2
Process exited after 31.25 seconds with return value 0
Press any key to continue . . .
Compiler Resources Compile Log Debug Find Results
Line: 34 Col: 4 Sel: 0 Lines: 34 Length: 983 Insert Done parsing in 0.031 seconds
ENG IN 16:18 20-09-2022

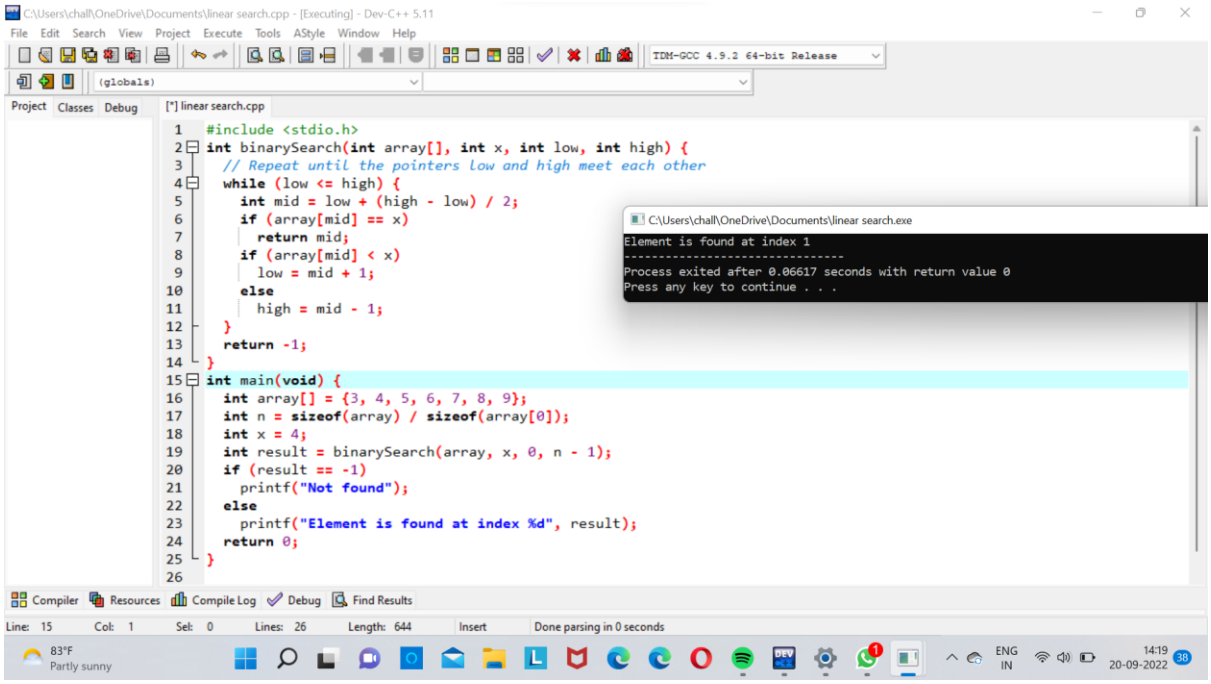
DISPLAY:-



EXPERIMENT :-8(LINEARSEARCH)



EXPERIMENT:9(BINARY SEARCH)


C:\Users\chall\OneDrive\Documents\linear search.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
(globals)
Project Classes Debug
[*] linear search.cpp
#include <stdio.h>
int binarySearch(int array[], int x, int low, int high) {
// Repeat until the pointers low and high meet each other
while (low <= high) {
int mid = low + (high - low) / 2;
if (array[mid] == x)
return mid;
if (array[mid] < x)
low = mid + 1;
else
high = mid - 1;
}
return -1;
}
int main(void) {
int array[] = {3, 4, 5, 6, 7, 8, 9};
int n = sizeof(array) / sizeof(array[0]);
int x = 4;
int result = binarySearch(array, x, 0, n - 1);
if (result == -1)
printf("Not found");
else
printf("Element is found at index %d", result);
return 0;
}
C:\Users\chall\OneDrive\Documents\linear search.exe
Element is found at index 1
Process exited after 0.06617 seconds with return value 0
Press any key to continue . . .
Compiler Resources Compile Log Debug Find Results
Line: 15 Col: 1 Sel: 0 Lines: 26 Length: 644 Insert Done parsing in 0 seconds
83°F Partly sunny
ENG IN
14:19 20-09-2022