



COMPUTER ASSINGMENT 3

Devendra gupta (AY1)

This is made by Devendra gupta.

Ths is submitted to miss. Gurpreet mam.

COMPUTER ASSINGMENT 3

Devendra gupta

```
#include<stdio.h>

#include<tension.h>

void main()

{
    mind = confused:
    while(study!=done)
    {
        paper=back;

        Parents=scold++
    }

    If(exam==pass)
    {
        Tension free;
    }

    else
    {
        Game over;
    }
}
```

DETAILS:

Class : AY1

Subject: COMPUTER
(CS) semester 1

Facality: Miss .
Gurpreet mam

DATE : 05|12|2023

(TUESDAY)

LANGUAGE : C

NO. OF CODES: 185

Class Roll no.-20

University-2315000726

Array:

ques 1: WAP INSERT ELEMENT IN ARRAY?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int n;
```

```
    int a[n];
```

```
    printf("enter size: ");
```

```
    scanf("%d",&n);
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

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

```
    }
```

```
    for(int i=0;i<n;i++)
```

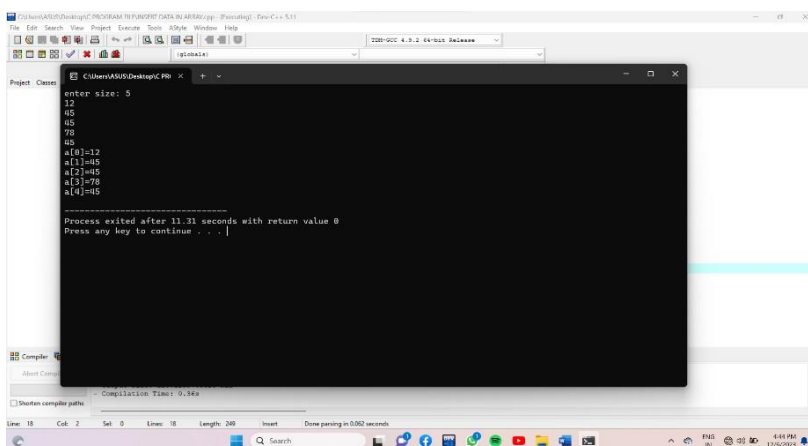
```
    {
```

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

```
    }
```

```
    return 0;
```

```
}
```

A screenshot of a C++ IDE (Visual Studio Code) with a terminal window open. The terminal shows the execution of a program that prompts the user to enter the size of an array (5) and then enters five elements (12, 45, 78, 45, 78). The output shows the array elements at indices 0 to 4. The process exited after 11.31 seconds with return value 0. The IDE interface includes a menu bar, a toolbar, and a status bar at the bottom.

```
enter size: 5
12
45
78
45
78
a[0]=12
a[1]=45
a[2]=78
a[3]=45
a[4]=78
-----
Process exited after 11.31 seconds with return value 0
Press any key to continue . . .
```

QUES2: WAP TO UPDATE ELEMENT IN ARRAY IN C LANGUAGE?

```

#include<stdio.h>

#include<conio.h>

int main()
{
    int a[5]={10,20,30,40,50};

    a[2]=100;

    for(int i=0;i<5;i++)
    {
        printf("%d\t",a[i]);
    }

    return 0;
}

```

The screenshot shows a C++ IDE with the following components:

- Editor:** Displays the source code for `ARRAY2.cpp`.
- Output Window:** Shows the execution results:


```

10    20    100   40    50
-----
Process exited after 0.1992 seconds with return value 0
Press any key to continue . . .
      
```
- Compiler:** Shows the compilation status, including options like "Shorten compiler paths".
- Taskbar:** Displays the Windows taskbar with various application icons and the system clock showing 4:48 PM on 12/6/2023.

```

}

```

QUES 3: WAP TO ADD ELEMENT IN ARRAY?

```

#include<stdio.h>

#include<conio.h>

```

```

int main()

{
    int n;

    int a[n];

    printf("enter size: ");

    scanf("%d",&n);

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

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

    }

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

    {

        printf("a[%d]=%d\n",i,a[i]);

    }

    printf(" sum is %d",sum);

    return 0;

}

```

The screenshot shows the Dev-C++ IDE with a C program being executed. The console window displays the following output:

```

10    20    30    40    50    sum is 12000000
-----
Process exited after 0.01617 seconds with return value 0
Press any key to continue . . .

```

The IDE interface includes a menu bar (File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help), a toolbar, and a status bar at the bottom showing line and column numbers (Line: 16, Col: 6) and the time (4:51 PM 12/6/2023).

QUES5: WAP TO FIND ODD OR EVEN NUMBER IN ARRAY?

```

#include <stdio.h>

int main()

{

    int n,i,j;

    scanf("%d",&n);

    int a[n];

    for(i=0;i<n;i++)

    {

        printf("enter elements: ");

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

    }

    for(j=0;j<n;j++)

    if(a[j]%2==0)

    {

        a[j]=0;

    }

    else

    {

        a[j]=1;

    }

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

    {

        printf("a[%d]=%d\n",i,a[i]);

    }

    return 0;

}

```

QUES : WAP TO FIND AVERAGE AND PERCENTAGE IN ARRAY?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```

int main()
{
    int n;

    int a[n];

    printf("enter size: ");

    scanf("%d",&n);

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

    {
        scanf("%d",&a[i]);
    }

    int average;

    int count=0;

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

    { count=count+a[i]; }

    average=count/n;

    printf("average is %d\n",average);

    int percentage;

    printf("percentage is %d%%",average);

    return 0;
}

```

The screenshot displays the Dev-C++ IDE with a C program that calculates the average and percentage of an array. The program is executed, and the console output shows the user entering the size 5, followed by the array elements 12, 45, 78, 65, and 45. The calculated average is 49, and the percentage is 49%. The compiler window shows 0 warnings and the output file is C:\Users\ASUS\Desktop\C PROGRAM FILE\AVERAGE IN ARRAY.exe.

QUES : WAP TO REARRANGE ARRAY IN ASENDING ORDER?

```
#include<stdio.h>
```

```

#include<conio.h>

int main()

{

    int n;

    printf("enter size: ");

    scanf("%d",&n);

    int a[n];

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

    {

        printf("enter a[%d] value: ",i);

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

    }

    printf("according to given data array is : \n");

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

    {

        printf("%d\t",a[i]);

    }

    int flag;

    for(int i=0;i<n-1;i++)

    {

        if(a[i]>a[i+1])

        {

            flag=a[i+1];

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

            a[i]=flag;

        }

    }

    printf("\n after arranging array is:\n");

```



```

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

{

printf("%d\t",a[i]);

}

return 0;

}

```

The screenshot shows a Windows IDE with a C++ program being executed. The program prompts the user to enter the size of the array (5) and then the values of the elements (12, 45, 78, 56, 45). It then displays the original array and the sorted array (12, 45, 56, 45, 78). The process exited after 4.954 seconds with a return value of 0.

```

C:\Users\ASUS\Desktop\C PROGRAM FILE\ASCENDING ORDER PROGRAM IN ARRAY.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TIM-GCC 4.9.2 64-bit Release
C:\Users\ASUS\Desktop\C PR
enter size: 5
enter a[0] value: 12
enter a[1] value: 45
enter a[2] value: 78
enter a[3] value: 56
enter a[4] value: 45
according to given data array is :
12 45 78 56 45
after arranging array is:
12 45 56 45 78
-----
Process exited after 4.954 seconds with return value 0
Press any key to continue . . .
Compile
Abort Compilation
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\ASCENDING ORDER PROGRAM IN ARRAY.exe
- Output Size: 129.306640625 KiB
- Compilation Time: 0.28s
Shorten compiler paths
Line: 21 Col: 5 Sel: 0 Lines: 42 Length: 578 Insert Done parsing in 0.015 seconds

```

QUES: WAP TO SEARCH ELEMENT IN ARRAY?

```
#include<stdio.h>
```

```

#include<conio.h>

int main()

{

    int n;

    int a[n];

    int choice;

    printf("enter size: ");

    scanf("%d",&n);

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

    {

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

    }

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

    {

        printf("a[%d]=%d\n",i,a[i]);

    }

    int flag;

    printf("enter element you want to search: ");

    scanf("%d",&flag);

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

    {

        if(a[i]==flag)

        {

            printf("element found at index = %d\n",i);

            break;

        }

    }

    return 0;

}

```

```
C:\Users\ASUS\Desktop\C PROGRAM FILE\ELEMENT SEARCH IN ARRAY.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
Compiler: GCC 4.9.2 64-bit Release
Project Classes Debug
enter size: 5
122
45
455
45
1
a[0]=122
a[1]=45
a[2]=455
a[3]=45
a[4]=1
enter element you want to search: 122
element found at index = 0

-----
Process exited after 12.62 seconds with return value 0
Press any key to continue . . .

Compiler: GCC 4.9.2 64-bit Release
Output Size: 128.62890625 KiB
Compilation Time: 0.27s
Shorten compiler paths
Line: 8 Col: 28 Sel: 0 Lines: 30 Length: 462 Insert Done parsing in 0 seconds
Search
```

QUES: WAP A PROGRAM TO FIND EVEN (1) OR ODD(0) IN ARRAY?

```
#include <stdio.h>
```

```
#include <string.h>
```

```
#include <math.h>
```

```
#include <stdlib.h>
```

```
int main()
```

```
{
```

```
    int n,i;
```

```
    scanf("%d",&n);
```

```
    int a[n];
```

```
    for(i=0;i<n;i++)
```

```
    {
```

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

```
    }
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        if(a[i]%2==0)
```

```

{
    a[i]=0;
}

else
{
    a[i]=1;
}
}

for(int j=0;j<n;j++)
{
    printf("%d\t",a[j]);
}
}

```

The screenshot shows a C++ IDE with the following details:

- File Name:** C:\Users\ASUS\Desktop\C PROGRAM FILE\EVEN OR ODD 1 D ARRAY.cpp
- Compiler:** Dev-C++ 5.11
- Console Output:**

```

5
45
78
45
78
45
1 0 1 0 1
-----
Process exited after 7.561 seconds with return value 0
Press any key to continue . . .

```
- Compiler Output:**

```

- Warnings: 0
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\EVEN OR ODD 1 D ARRAY.exe
- Output Size: 128.126953125 K1B
- Compilation Time: 0.27s

```
- Status Bar:** Line: 1, Col: 1, Sel: 0, Lines: 32, Length: 457, Insert, Done parsing in 0.047 seconds
- Taskbar:** Windows taskbar at the bottom with search, task view, and various application icons. System clock shows 5:01 PM on 12/6/2023.

QUES: WAP TO FIND POSITIVE , NEGATIVE OR ZERO ELEMENT IN ARRAY?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int n;
```

```
    printf("enter size: ");
```

```
    scanf("%d",&n);
```

```
    int a[n];
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

```
        printf("enter a[%d] value: ",i);
```

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

```
    }
```

```
    printf("according to given data array is : \n");
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

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

```
    }
```

```
    int odd=0;
```

```
    int even=0;
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

```
        if(a[i]%2==0)
```

```
        {
```

```
            even++;
```

```
        }
```

```
        else
```

```
        {
```

```

        odd++;
    }
}

int pos=0;
int neg=0;
int zero=0;

for(int j=0;j<n;j++)
{
    if(a[j]>0)
    {
        pos++;
    }
    else if(a[j]<0)
    {
        neg++;
    }
    else
    {
        zero++;
    }
}

printf("even=%d and odd=%d\n",even,odd);

printf("positive=%d and negative= %d and zero= %d",pos,neg,zero);

```

```
}
C:\Users\ASUS\Desktop\C PROGRAM FILE\INSERT 2 ARRAY.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Windows Help
C:\Users\ASUS\Desktop\C PR x + v
enter size: 5
enter a[0] value: 12
enter a[1] value: 455
enter a[2] value: -77
enter a[3] value: 0
enter a[4] value: 45
according to given data array is :
a[0]=12
a[1]=455
a[2]=-77
a[3]=0
a[4]=45
even=2 and odd=3
positive=3 and negative= 1 and zero= 1
-----
Process exited after 6.209 seconds with return value 0
Press any key to continue . . . |
Project Classes De
NG ORDER PROGRAM IN ARRAY.cpp
2 ARRAY.cpp
Compiler Resources Compile Log Debug Find Results Close
About Compilation
- Warnings: 0
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\INSERT 2 ARRAY.exe
- Output Size: 129.2705078125 KiB
- Compilation Time: 0.27s
Shorten compiler paths
Line: 1 Col: 1 Sel: 0 Lines: 59 Length: 760 Insert Done parsing in 0 seconds
Search
ENG IN 5:04 PM 12/6/2023
```

QUES: WAP TO FIND LARGEST AND SMALLEST IN ARRAY?

```
#include <stdio.h>
```

```
#include <string.h>
```

```
#include <math.h>
```

```
#include <stdlib.h>
```

```
int main()
```

```
{
```

```
    int n,i;
```

```
    printf("enter elemnt size : ");
```

```
    scanf("%d",&n);
```

```
    int a[n];
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        printf("enter element at index %d: ",i);
```

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

```
    }
```

```

int largest=a[0];

int smallest=a[1];

for(i=0;i<n;i++)
{
    if(a[i]>largest)
    {
        largest=a[i];
    }

    if(smallest>a[i])
    {
        smallest=a[i];
    }
}

printf("SMALLEST =%d\nLARGEST=%d",smallest,largest);

```

The screenshot shows the Dev-C++ IDE with a C++ program running. The console window displays the following output:

```

enter elemnt size : 5
enter element at index 0: 12
enter element at index 1: 45
enter element at index 2: 7857
enter element at index 3: 42
enter element at index 4: 1
SMALLEST =1
LARGEST=7857
-----
Process exited after 8.032 seconds with return value 0
Press any key to continue . . .

```

The IDE interface includes a menu bar (File, Edit, Search, View, Project, Execute, Tools, AStyle, Window, Help), a toolbar, a project explorer on the left, and a status bar at the bottom showing line and column numbers (Line: 14, Col: 44) and compilation details.

2 D ARRAY:

QUES: WAP TO INSERT ELEMENT IN 2 D ARRAY?

```
A#include<stdio.h>

int main()
{
    int m,n;

    printf("enter row and column size: ");

    scanf("%d %d",&m,&n);

    int a[m][n];

    for(int i=0;i<m;i++)
    {
        for(int j=0;j<n;j++)
        {
            printf("enter element at index %d and %d:",i,j);

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

        }
    }

    for(int i=0;i<m;i++)
    {
        for(int j=0;j<n;j++)
        {
            printf("%d\t",a[i][j]);

        }

        printf("\n");
    }
}
```

```
}
```

```
}

C:\Users\ASUS\Desktop\C PROGRAM FILE\INSERT DATA IN 2 D ARRAY.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release

Project Classes Debug
C:\Users\ASUS\Desktop\C PR...
enter row and column size: 2 2
enter element at index 0 and 0:45
enter element at index 0 and 1:78
enter element at index 1 and 0:12
enter element at index 1 and 1:56
45    78
12    56

-----
Process exited after 10.79 seconds with return value 0
Press any key to continue . . . |

Compiler Resource
Abort Compilation
Output File Name: C:\Users\ASUS\Desktop\C PROGRAM FILE\INSERT DATA IN 2 D ARRAY.EXE
Output Size: 130.3017578125 KiB
Compilation Time: 0.27s
Shorten compiler paths

Line: 1 Col: 1 Sel: 0 Lines: 29 Length: 400 Insert Done parsing in 0 seconds
Search
ENG IN 5:07 PM 12/6/2023
```

QUES: WAP TO ADD TWO 2 D MATRIX?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int m,n,p,q;
```

```
    printf("enter row and column size of first matrix : ");
```

```
    scanf("%d %d",&m,&n);
```

```
    printf("enter row and column size of second matrix: ");
```

```
    scanf("%d %d",&p,&q);
```

```
    int a[m][n];
```

```
    int b[m][n];
```

```
    int c[m][n];
```

```
    for(int i=0;i<m;i++)
```

```

{
    for(int j=0;j<n;j++)
    {
        printf("enter element of first matrix %d and %d: ",i,j);

        scanf("%d",&a[i][j]);
    }
}

printf("\n");

for(int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)
    {
        printf("enter element of second matrix %d and %d: ",i,j);

        scanf("%d",&b[i][j]);
    }
}

int sum=0;

for (int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)
    {
        c[i][j]=a[i][j]+b[i][j];
    }
}

printf("\nsum of two matrix: \n");

for(int i=0;i<m;i++)
{

```

```

        for(int j=0;j<n;j++)
        {

                printf("%d\t",c[i][j]);

        }

        printf("\n");

}

```

```

C:\Users\ASUS\Desktop\C PROGRAM FILE\ADD TWO 2 D ARRAY.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
C:\Users\ASUS\Desktop\C PRI
enter row and column size of first matrix : 2 2
enter row and column size of second matrix: 2 2
enter element of first matrix 0 and 0: 12
enter element of first matrix 0 and 1: 45
enter element of first matrix 1 and 0: 78
enter element of first matrix 1 and 1: 98

enter element of second matrix 0 and 0: 23
enter element of second matrix 0 and 1: 56
enter element of second matrix 1 and 0: 89
enter element of second matrix 1 and 1: 45

sum of two matrix:
35    101
167   143

-----
Process exited after 12.13 seconds with return value 0
Press any key to continue . . .

```

- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\ADD TWO 2 D ARRAY.exe
 - Output Size: 131.4639671875 KiB
 - Compilation Time: 0.27s

Line: 1 Col: 1 Sel: 0 Lines: 56 Length: 901 Insert Done parsing in 0 seconds

5:09 PM 12/6/2023

QUES: WAP TO SUM ELEMENT IN 2 D ARRAYOR MATRIX?

```

#include<stdio.h>

int main()
{

    int m,n;

    int sum=0;

    printf("enter size of matrix: ");

    scanf("%d %d",&m,&n);

    int a[m][n];

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

```

```

{
    for(int j=0;j<n;j++)
    {
        printf("enter value of index %d and %d : ",i,j);
        scanf("%d",&a[i][j]);
    }
}

for(int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)

    {
        printf(" value at index %d and %d : %d\n",i,j,a[i][j]);
    }
}

for(int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)

    {
        sum=sum+a[i][j];
    }
}

printf("sum is %d",sum);
}

```

```
C:\Users\ASUS\Desktop\C PROGRAM FILE\SUM OF 2 D array.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
Compiler Resources
Abort Compilation
Shorten compiler paths
Project Classes Debug
C:\Users\ASUS\Desktop\C PR
enter size of matrix: 2 2
enter value of index 0 and 0 : 12
enter value of index 0 and 1 : 44
enter value of index 1 and 0 : 45
enter value of index 1 and 1 :
45
value at index 0 and 0 : 12
value at index 0 and 1 : 44
value at index 1 and 0 : 45
value at index 1 and 1 : 45
sum is 146
-----
Process exited after 13.68 seconds with return value 0
Press any key to continue . . . |
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\SUM OF 2 D array.exe
- Output Size: 129.6220703125 KiB
- Compilation Time: 0.27s
Line: 1 Col: 1 Sel: 0 Lines: 37 Length: 557 Insert Done parsing in 0 seconds
ENG IN 5:10 PM 12/6/2023
```

QUES: WAP TO FIND ODD OR EVEN INT WO D ARRAY?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int m,n;
```

```
    int even=0;
```

```
    int odd=0;
```

```
    printf("enter row and column size of first matrix : ");
```

```
    scanf("%d %d",&m,&n);
```

```
    int a[m][n];
```

```
    for(int i=0;i<m;i++)
```

```
    {
```

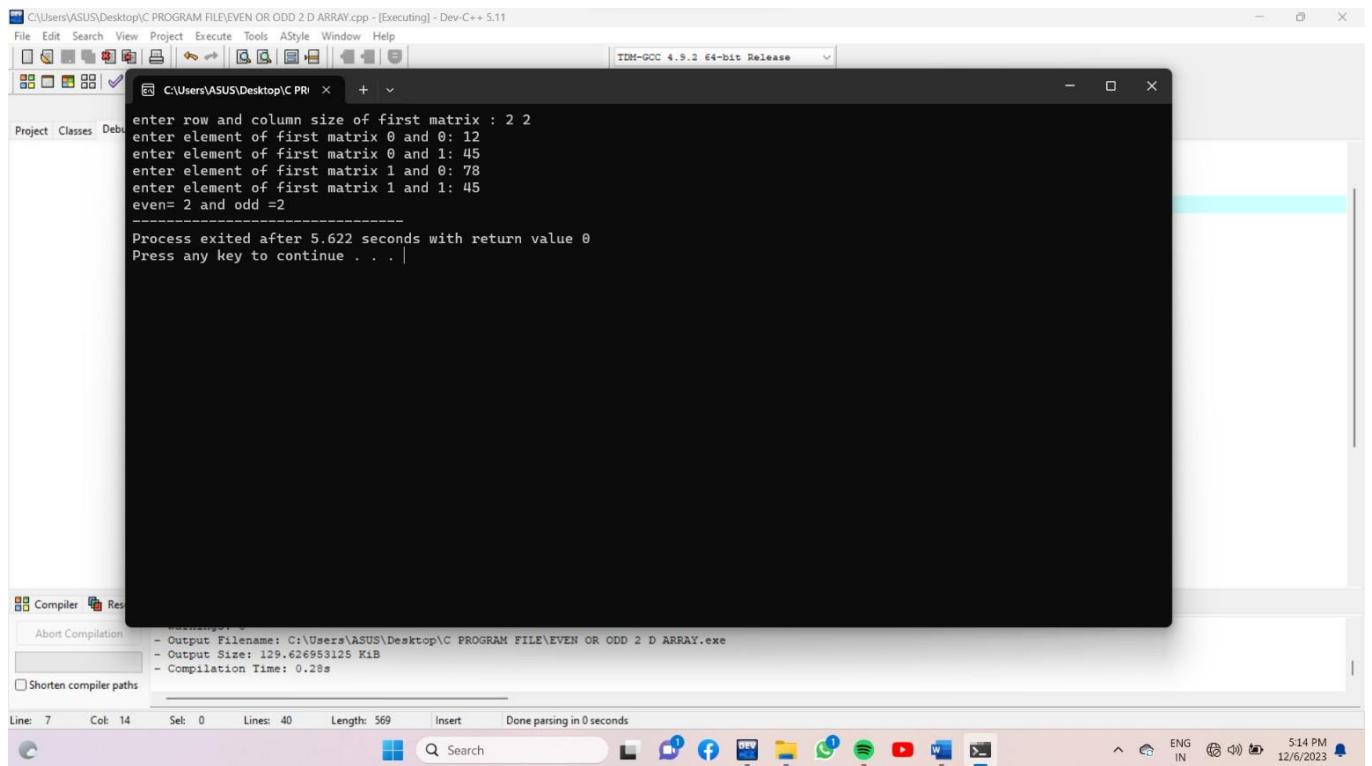
```
        for(int j=0;j<n;j++)
```

```
        {
```

```
            printf("enter element of first matrix %d and %d: ",i,j);
```

```
            scanf("%d",&a[i][j]);
```

```
        }  
    }  
  
    for (int i=0;i<m;i++)  
    {  
        for(int j=0;j<n;j++)  
        {  
            if(a[i][j]%2==0)  
            {  
                even ++;  
            }  
            else  
            {  
                odd++;  
            }  
        }  
    }  
  
    printf("even= %d and odd =%d",even,odd);  
  
    return 0;  
}
```



```
C:\Users\ASUS\Desktop\C PROGRAM FILE\EVEN OR ODD 2 D ARRAY.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
C:\Users\ASUS\Desktop\C PRI
enter row and column size of first matrix : 2 2
enter element of first matrix 0 and 0: 12
enter element of first matrix 0 and 1: 45
enter element of first matrix 1 and 0: 78
enter element of first matrix 1 and 1: 45
even= 2 and odd =2
-----
Process exited after 5.622 seconds with return value 0
Press any key to continue . . . |
Compiler
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\EVEN OR ODD 2 D ARRAY.exe
- Output Size: 129.626953125 KiB
- Compilation Time: 0.28s
Shorten compiler paths
Line: 7 Col: 14 Sel: 0 Lines: 40 Length: 569 Insert Done parsing in 0 seconds
Search
ENG IN 5:14 PM 12/6/2023
```

QUES: WAP TO MAKE A 2 D MATRIX IN IDENTICAL MATRIX?

```
#include<stdio.h>

#include<conio.h>

int main()
{
    int m,n;

    printf("enter row and column size of first matrix : ");

    scanf("%d %d",&m,&n);

    int a[m][n];

    for(int i=0;i<m;i++)
    {
        for(int j=0;j<n;j++)
        {
            printf("enter element of first matrix %d and %d: ",i,j);

            scanf("%d",&a[i][j]);
        }
    }
}
```



```

for(int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)
    {
        if(i==j)
        {
            printf("%d ",a[i][j]=1);
        }
        else
        {
            printf("%d ",a[i][j]=0);
        }
    }
    printf("\n");
}
}

```

The screenshot displays the Dev-C++ 5.11 IDE with a C program being executed. The program prompts the user to enter the row and column sizes of a matrix, followed by the elements of the first matrix. The output shows the resulting matrix, which is a 2x2 matrix with diagonal elements set to 1 and off-diagonal elements set to 0.

```

C:\Users\ASUS\Desktop\C PROGRAM FILE\IDENTICAL 2 D MATRIX.cpp - [Executing] - Dev-C++ 5.11
C:\Users\ASUS\Desktop\C PR...
enter row and column size of first matrix : 2 2
enter element of first matrix 0 and 0: 45
enter element of first matrix 0 and 1: 12
enter element of first matrix 1 and 0: 12
enter element of first matrix 1 and 1: 45
1 0
0 1

-----
Process exited after 6.72 seconds with return value 0
Press any key to continue . . .

```

The IDE interface includes a Compiler window showing the compilation process, a Resources window, and a status bar at the bottom indicating the current line and column.

QUES : WAP TO CHECK WHETHER MATRIX IS SPARSE OR NOT?

//WAP TO FIND MATRIX IS SPARSE OR NOT//

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int m,n;
```

```
    int count;
```

```
    int half=(m*n)/2;
```

```
    printf("enter row and column size of first matrix : ");
```

```
    scanf("%d %d",&m,&n);
```

```
    int a[m][n];
```

```
    for(int i=0;i<m;i++)
```

```
    {
```

```
        for(int j=0;j<n;j++)
```

```
        {
```

```
            printf("enter element of first matrix %d and %d: ",i,j);
```

```
            scanf("%d",&a[i][j]);
```

```
        }
```

```
    }
```

```
    for (int i=0;i<m;i++)
```

```
    {
```

```
        for(int j=0;j<n;j++)
```

```
        {
```

```
            if(a[i][j]==0)
```

```
            {
```

```
                count ++;
```

```
            }
```

```
        }
```

```

    }

    if(count>=half)
    {

        printf("sparse matrix.");

    }

    else

    {

        printf("matris is not sparse matrix.");

    }

}

```

```

return 0;

```

```

C:\Users\ASUS\Desktop\C PROGRAM FILE\SAPRSE MATRIX.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
C:\Users\ASUS\Desktop\C PR...
Project Classes Debug
enter row and column size of first matrix : 2 2
enter element of first matrix 0 and 0: 0
enter element of first matrix 0 and 1: 0
enter element of first matrix 1 and 0: 0
enter element of first matrix 1 and 1: 5
sparse matrix.
-----
Process exited after 5.464 seconds with return value 0
Press any key to continue . . .
Compiler Resources
Abort Compilation
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\SAPRSE MATRIX.exe
- Output Size: 129.6015625 KiB
- Compilation Time: 0.27s
Shorten compiler paths
Line: 33 Col: 6 Set: 0 Lines: 46 Length: 658 Insert Done parsing in 0.015 seconds

```

QUES: WAP TO SUM DIAGONAL IN 1 D ARRAY?

```

#include<stdio.h>

#include<conio.h>

int main()

{

```

```

int m,n;

int sum1=0;

int sum=0;

printf("enter row and column size of first matrix : ");

scanf("%d %d",&m,&n);

int a[m][n];

for(int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)
    {

        printf("enter element of first matrix %d and %d: ",i,j);

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

    }
}

for (int i=0;i<m;i++)
{
    for(int j=0;j<n;j++)
    {

        if(i==j)
        {
            sum=sum+a[i][j];
        }

        printf("%d ",a[i][j]);

    }

    printf("\n");
}

printf("\n");

```

```

for(int i=0;i<m;i++)
{
    for(int j=n-1;j>=0;j--)
    {
        if(i==j)
        {
            sum1=sum1+a[i][j];
        }
    }
}

printf("\nsum of right diagonal is %d",sum);

printf("\nsum of left diagonal is %d",sum1);
}

```

The screenshot shows a C++ IDE with a project named "SUMMOF DIAGONAL IN 2 D ARRAY.cpp". The console window displays the following output:

```

enter row and column size of first matrix : 3 3
enter element of first matrix 0 and 0: 23
enter element of first matrix 0 and 1: 45
enter element of first matrix 0 and 2: 78
enter element of first matrix 1 and 0: 42
enter element of first matrix 1 and 1: 5
enter element of first matrix 1 and 2: 12
enter element of first matrix 2 and 0: 12
enter element of first matrix 2 and 1: 23
enter element of first matrix 2 and 2: 45
23 45 78
42 5 12
12 23 45

sum of right diagonal is 73
sum of left diagonal is 73
-----
Process exited after 17.11 seconds with return value 0
Press any key to continue . . .

```

The IDE also shows the compiler output at the bottom:

```

~ Warnings: 0
~ Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\SUMMOF DIAGONAL IN 2 D ARRAY.exe
~ Output Size: 130.3056640625 KiB
~ Compilation Time: 0.28s

```

LINEAR SERCH:

QUES :WAP TO SEARCH ELEMENT IN LINEAR SEARCH?

```
#include<stdio.h>

#include<conio.h>

int main()

{

    int n=5;

    int a[5]={10,20,30,40,50};

    int item=50;

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

    {

        if(a[i]==item)

        {

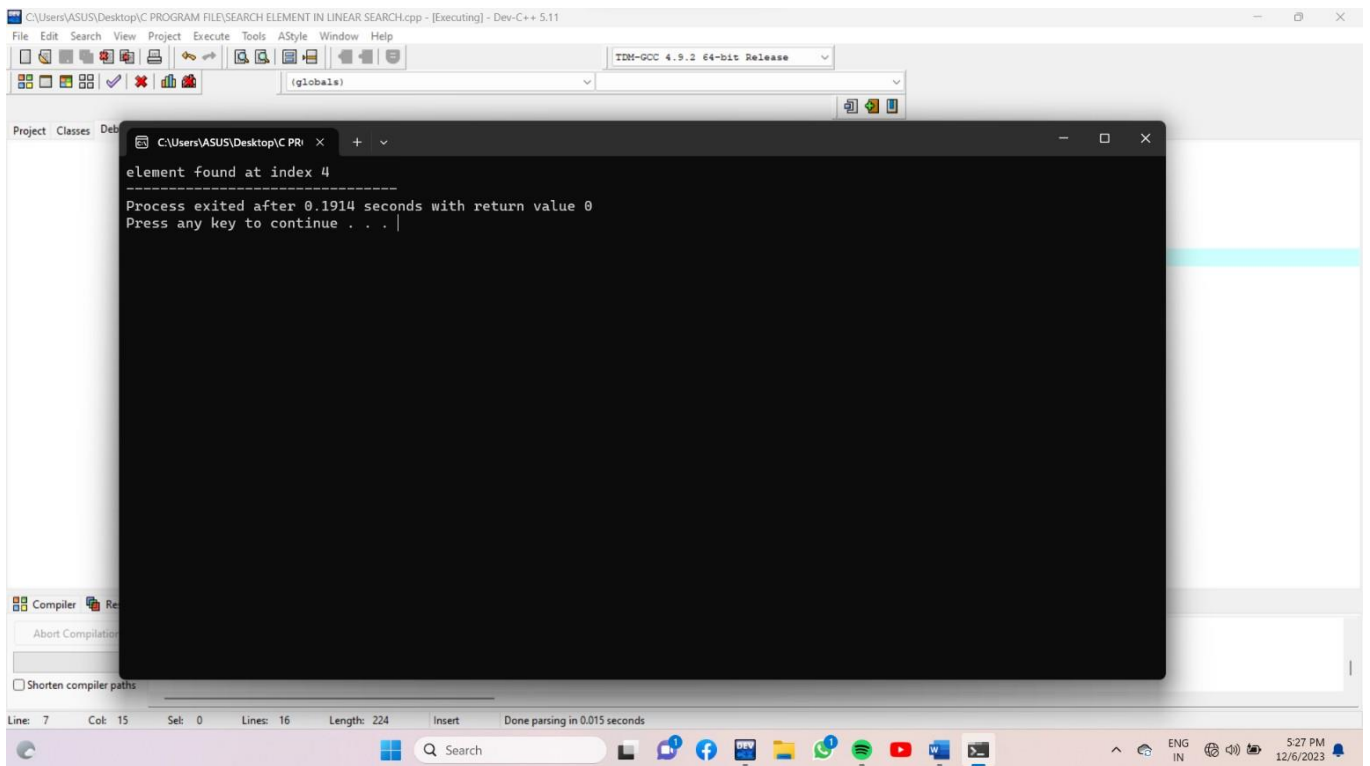
            printf("element found at index %d",i);

            break;

        }

    }

}
```



STRING :

QUES : WAP TO USE ALL FUNCTION IN STRING?

```
#include<stdio.h>
```

```
#include<string.h>
```

```
int main()
```

```
{
```

```
    char s[5]={'h','e','l','l','o'};
```

```
    char t[]={"class"};
```

```
    printf("%s %s",s,t);
```

```
    printf("\n%d",strlen(t)); // to cheak lentgh//
```

```
    printf("\n%s",strupr(s)); // to convert in upper//
```

```
    printf("\n%s",strlwr(s)); // to convert in lower//
```

```
    printf("\n%s",strcat(s,t)); // to combine 2 string//
```

```
    printf("\n%s",strcpy(s,t)); // to copy one string and paste it into another string//
```

```
printf("\n%d",strcmp(s,t)); // to compare which one is greater //
```

```
}  
C:\Users\ASUS\Desktop\C PROGRAM FILE\STRING LIBRARY FUNCTION.cpp - [Executing] - Dev-C++ 5.11  
File Edit Search View Project Execute Tools AStyle Window Help  
TDM-GCC 4.9.2 64-bit Release  
C:\Users\ASUS\Desktop\C PR  
Project Classes Debug  
hello class  
5  
HELLO  
hello  
helloclass  
class  
0  
-----  
Process exited after 2.201 seconds with return value 0  
Press any key to continue . . . |  
Compiler Resources  
Abort Compilation  
- Warnings: 0  
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\STRING LIBRARY FUNCTION.exe  
- Output Size: 129,3125 KiB  
- Compilation Time: 0.28s  
Shorten compiler paths  
Line: 1 Col: 1 Sel: 0 Lines: 14 Length: 511 Insert Done parsing in 0 seconds  
Search  
ENG IN 5:30 PM 12/6/2023
```

POINTER :

QUES: WAP TO ADD TWO NUMBER USING POINTER ?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
int a,b;
```

```
printf("enter number which you want to add: ");
```

```
scanf("%d %d",&a,&b);
```

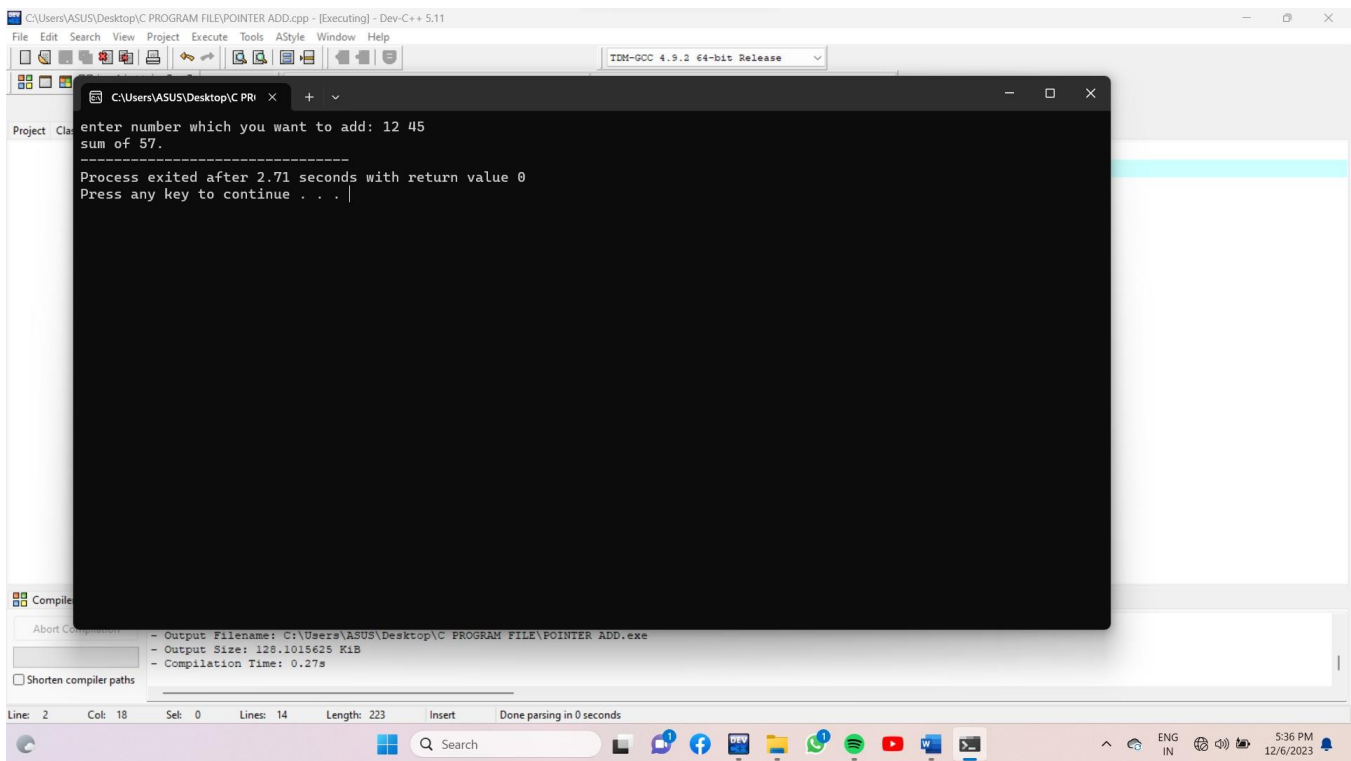
```
int *p=&a;
```

```
int *q=&b;
```

```
int c=*p+*q;
```



```
printf("sum of %d. ",c);  
  
}
```



The screenshot shows a Dev-C++ IDE window titled 'C:\Users\ASUS\Desktop\C PROGRAM FILE\POINTER ADD.cpp - [Executing] - Dev-C++ 5.11'. The IDE is running a C program. The console window displays the following output:

```
enter number which you want to add: 12 45  
sum of 57.  
-----  
Process exited after 2.71 seconds with return value 0  
Press any key to continue . . . |
```

The IDE's status bar at the bottom shows 'Line: 2 Col: 18 Sel: 0 Lines: 14 Length: 223 Insert Done parsing in 0 seconds'. The Windows taskbar at the bottom shows the time as 5:36 PM on 12/6/2023.

QUES : WAP TO FIND NUMBER IS EVEN OR ODD USING POINTER ?

```
#include<stdio.h>  
  
#include<conio.h>  
  
int main()  
{  
  
    int a;  
  
    printf("enter any number:");  
  
    scanf("%d",&a);  
  
    int *p=&a;  
  
    if(*p%2==0){  
  
        printf("Given no.is even");  
  
    else{  
  
        printf("Given no. is odd");  
  
    }  
  
    return 0;
```

```
}
C:\Users\ASUS\Desktop\C PROGRAM FILE\POINTER EVEN OR ODD.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Project Classes Debug POINTER.ADD.cpp POINTER.EVEN OR ODD.cpp
C:\Users\ASUS\Desktop\C PR...
enter any number:12
Given no. is even
-----
Process exited after 3.291 seconds with return value 0
Press any key to continue . . . |
Compiler Resources
Abort Compilation
Shorten compiler paths
Line: 15 Col: 2 Sel: 225 Lines: 15 Length: 227 Insert Done parsing in 0.015 seconds
Search
```

QUES : WAP TO ENTER ELEMENT OF ARRAY IN POINTER?

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int main()
```

```
{
```

```
    int n;
```

```
    int a[n];
```

```
    printf("enter size: ");
```

```
    scanf("%d",&n);
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

```
        printf("enter element at %d index: ",i+1);
```

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

```
    }
```

```
    int *p=&a[0];
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

```
        printf("%d ",*p);
```

```
p++;  
  
}  
  
return 0;  
  
}  
C:\Users\ASUS\Desktop\C PROGRAM FILE\POINTER USING ARRAY.cpp - [Executing] - Dev-C++ 5.11  
File Edit Search View Project Execute Tools AStyle Window Help  
C:\Users\ASUS\Desktop\C PR  
Project  
enter size: 5  
enter element at 1 index: 4  
enter element at 2 index: 1  
enter element at 3 index: 4  
enter element at 4 index: 4  
4  
enter element at 5 index: 5  
4 1 4 4 5  
-----  
Process exited after 5.235 seconds with return value 0  
Press any key to continue . . . |  
Abort Compilation  
- Warnings: 0  
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\POINTER USING ARRAY.exe  
- Output Size: 129.125 KiB  
- Compilation Time: 0.27s  
Shorten compiler paths  
Line: 1 Col: 1 Sel: 0 Lines: 21 Length: 308 Insert Done parsing in 0 seconds  
Search  
Snipping Tool  
Screenshot copied to clipboard and saved  
Select here to mark up and share the image  
ENG IN 5:39 PM 12/6/2023
```

PROJECT OR ASSINGMENT OF SEMESTER 1

1. WRITE A PROGRAM OF VOTING MACHINE?

```
#include<stdio.h>  
  
#include<conio.h>  
  
int win_by_vote;  
  
int BJP=0;int BSP=0;int INC=0;int ADP=0; int others=0;  
  
void vote();  
  
void result();  
  
void details();  
  
void vote()  
{  
  
    int VOTE;  
  
    printf("\npress 1 for vote for BJP\n");
```

```
printf("press 2 for vote for ADP\n");

printf("press 3 for vote for BSP\n");

printf("press 4 for vote for INC\n");

printf("press 5 for vote for OTHERS\n");

scanf("%d",&VOTE);

printf("\n");

switch(VOTE)
{
    case 1:
        {
            BJP+=1;

            break;
        }

    case 2:
        {
            ADP+=1;

            break;
        }

    case 3:
        {
            BSP+=1;

            break;
        }

    case 4:
        {
            INC+=1;

            break;
        }

    case 5:
        {
            others+=1;

            break;
        }
}
```

```

default:

    {

        printf("invalid\n");

    }

}

}

void result()

{

if(BJP>INC&&BJP>ADP&&BJP>BSP)

{

    printf("*** BJP WON THE ELECTION ***\n");

    printf("total vote of BJP: %d\n",BJP);

    win_by_vote=BJP-INC;

    printf("BJP won by %d VOTE by INC\n",win_by_vote);

    win_by_vote=BJP-BSP;

    printf("BJP won by %d VOTE by BSP\n",win_by_vote);

    win_by_vote=BJP-ADP;

    printf("BJP won by %d VOTE by ADP\n",win_by_vote);

    win_by_vote=BJP-others;

    printf("BJP won by %d VOTE by OTHERS\n",win_by_vote);

}

else if(INC>BSP&&INC>ADP&&INC>others)

{

    printf("*** INC WON THE ELECTION ***\n");

    printf("total vote of BJP : %d\n",BJP);

    win_by_vote=INC-BJP;

    printf("INC won by %d VOTE by BJP\n",win_by_vote);

    win_by_vote=INC-BSP;

    printf("INC won by %d VOTE by BSP\n",win_by_vote);

    win_by_vote=INC-ADP;

```

```

        printf("INC won by %d VOTE by ADP\n",win_by_vote);

        win_by_vote=INC-others;

        printf("INC won by %d VOTE by OTHERS\n",win_by_vote);
    }

    else if(BSP>ADP&&BSP>others)
    {

        printf("**** BSP WON THE ELECTION ***\n");

        printf("total vote of BSP : %d\n",BSP);

        win_by_vote=BSP-BJP;

        printf("BSP won by %d VOTE by BJP\n",win_by_vote);

        win_by_vote=BSP-INC;

        printf("BSP won by %d VOTE by INC\n",win_by_vote);

        win_by_vote=BSP-ADP;

        printf("BSP won by %d VOTE by ADP\n",win_by_vote);

        win_by_vote=BSP-others;

        printf("BSP won by %d VOTE by OTHERS\n",win_by_vote);
    }

    else if(ADP>others)
    {

        printf("**** ADP WON THE ELECTION ***\n");

        printf("total vote of ADP : %d\n",ADP);

        win_by_vote=ADP-BJP;

        printf("ADP won by %d VOTE by BJP\n",win_by_vote);

        win_by_vote=ADP-INC;

        printf("ADP won by %d VOTE by INC\n",win_by_vote);

        win_by_vote=ADP-BSP;

        printf("ADP won by %d VOTE by BSP\n",win_by_vote);

        win_by_vote=ADP-others;

        printf("ADP won by %d VOTE by OTHERS\n",win_by_vote);
    }

    else if(BJP==INC&&BJP==ADP&&BJP==BSP&&BJP==others)

```

```

        {

            printf("****NO PARTY WON THE ELECTION ****");

        }

    else

    {

        printf("**** OTHERS WON THE ELECTION ****\n");

        printf("total vote of OTHERS: %d\n",others);

        win_by_vote=others-BJP;

        printf("OTHERS won by %d VOTE by BJP\n",win_by_vote);

        win_by_vote=others-INC;

        printf("OTHERS won by %d VOTE by INC\n",win_by_vote);

        win_by_vote=others-BSP;

        printf("OTHERS won by %d VOTE by BSP\n",win_by_vote);

        win_by_vote=others-ADP;

        printf("OTHERS won by %d VOTE by ADP\n",win_by_vote);

    }

}

void details()

{

    int i,age;

    int n=6;

    char gender[10];

    printf("Enter Gender: ");

    scanf("%s",&gender);

    if(gender[0]=='m' || gender[0]=='M')

    {

        printf("\nMr.");

        char name[50];

        scanf("%s",&name);

    }

}

```

```

        else if(gender[0]!='f' || gender[0]!='F')
        {
            printf("\nMiss.");
            char name[50];
            scanf("%s",&name);
        }
        else
        {
            printf("\nInvalid");
        }

        printf("\nEnter Age: ");
        scanf("%d",&age);
    }

int main()
{
    int n=1;

    printf("    ***WELCOME TO THE VOTING ELECTION***\n");
    details();
    vote();
    while(n<11)
    {
        int choice;

        printf(" IF YOU WANTED TO VOTE MORE PRESS '0'");
        printf(" OR WANTED TO KNOW RESULT PRESS '1'\n");
        scanf("%d",&choice);
        printf("\n");

        if(choice==1)
        {
            result();
            break;
        }

        else

```



```

        {

            details();

            vote();

        }

        n++;

    }

    return 0;

}

```

```

C:\Users\ASUS\Desktop\C PROGRAM FILE\COMPLETE VOTING PROJECT.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
C:\Users\ASUS\Desktop\C PRI x + v
***WELCOME TO THE VOTING ELECTION***
Enter Gender: MALE
MR.DILIP
Enter Age: 20
press 1 for vote for BJP
press 2 for vote for ADP
press 3 for vote for BSP
press 4 for vote for INC
press 5 for vote for OTHERS
1
IF YOU WANTED TO VOTE MORE PRESS '0' OR WANTED TO KNOW RESULT PRESS '1'
1
*** BJP WON THE ELECTION ***
total vote of BJP: 1
BJP won by 1 VOTE by INC
BJP won by 1 VOTE by BSP
BJP won by 1 VOTE by ADP
BJP won by 1 VOTE by OTHERS
-----
Process exited after 14.81 seconds with return value 0
Press any key to continue . . . |
Compiler
Abort Compilation
- Warnings: 0
- Output Filename: C:\Users\ASUS\Desktop\C PROGRAM FILE\COMPLETE VOTING PROJECT.exe
- Output Size: 132.662109375 KiB
- Compilation Time: 0.27s
Shorten compiler paths
Line: 139 Col: 26 Sel: 0 Lines: 184 Length: 4218 Insert Done parsing in 0.016 seconds

```

THANKS !!!

