



COURSE DETAILS

**COURSE TITLE :- PROGRAMMING
FUNDAMENTAL**

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STUDENT DETAILS

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Q1 :-

(a)

Code a function that will return square of any integer number.

using namespace std;

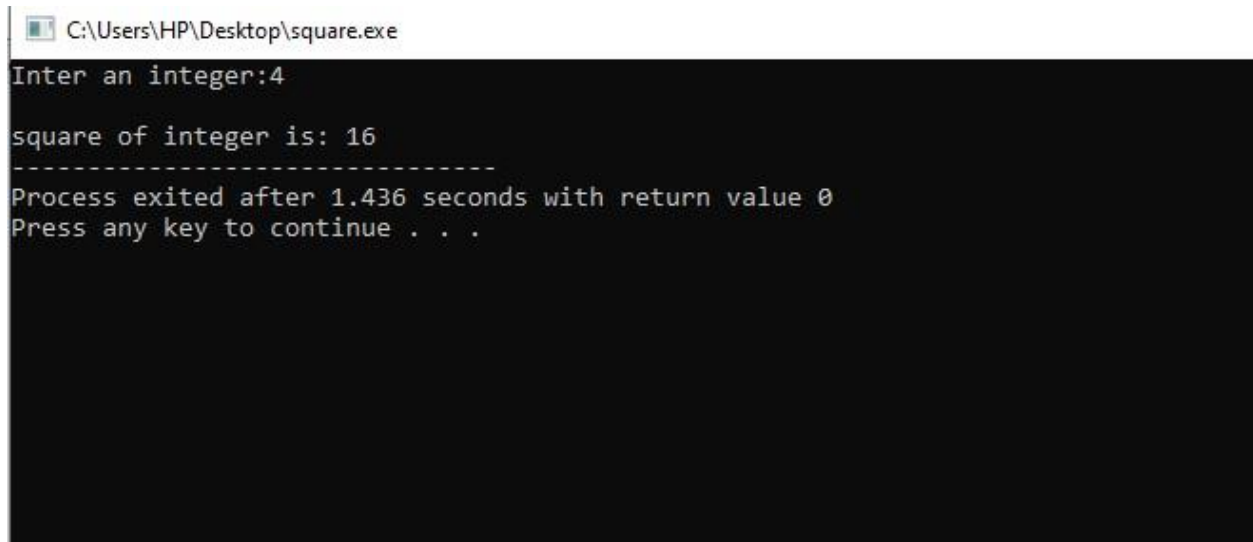
int main()

{

 double a;

 cout<<"inter an integer:";

 cin>>a;cout<<"\nsquare of integer is:" <<a*a;



```
C:\Users\HP\Desktop\square.exe
Inter an integer:4
square of integer is: 16
-----
Process exited after 1.436 seconds with return value 0
Press any key to continue . . .
```

Q1:-

(b)

Code a program where you input two 3x3 matrices from user and output the sum in matrix form.

```
# include <stdio.h>
void main()
```

```
{
    int i, j, rows, columns;
```

```
    printf("Enter number of rows and columns");
    scanf("%d%d", &rows, &columns);
    int a[rows][columns], b[rows][columns],
        c[rows][columns];
```

```
    printf("Enter first matrix:\n");
    for (i=0; i < rows; i++)
```

```
    {
        for (j=0; j < columns; j++)
```

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

```
        }
```

```
    }
```

```
    printf("\n Enter second matrix:\n");
```

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

```
    {
```

```
        for (j=0; j < columns; j++)
```

```
        {
```

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

```
        }
```

```
printf ( "\n Enter third matrix: \n" )
```

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

```
{
```

```
for ( j = 0; j < columns; j++ )
```

```
{
```

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

```
}
```

```
}
```

```
printf ( "\n the sum of three matrices  
will be : \n" );
```

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

```
for ( j = 0; j < columns; j++ )
```

```
{
```

```
printf ( " %d ", a [ i ] [ j ] + b [ i ]  
[ j ] + c [ i ] [ j ] );
```

```
}
```

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

```
}
```

```
}
```

Q2:- (a)

Code a program to get the following series 65, 44, 27, 14, 5, 0, -1, 2, 9, 20. Hint: The series is created by the formula $2x^2 - 3x$ with $x=-5$ to 4.

```
#include<iostream>

using namespace std;

int main()

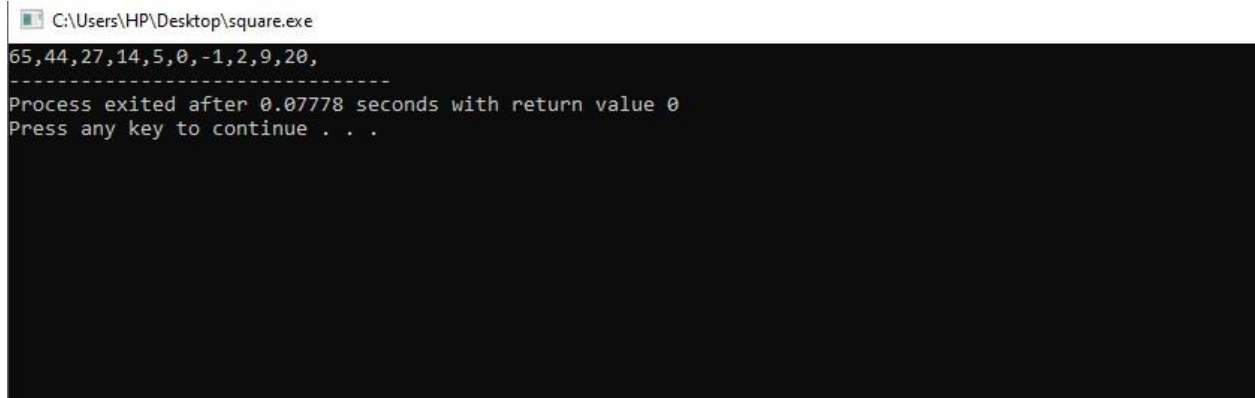
{

    for(int a=-5; a<5;a++){

        cout<<2*a*a-3*a<<" ";

    }

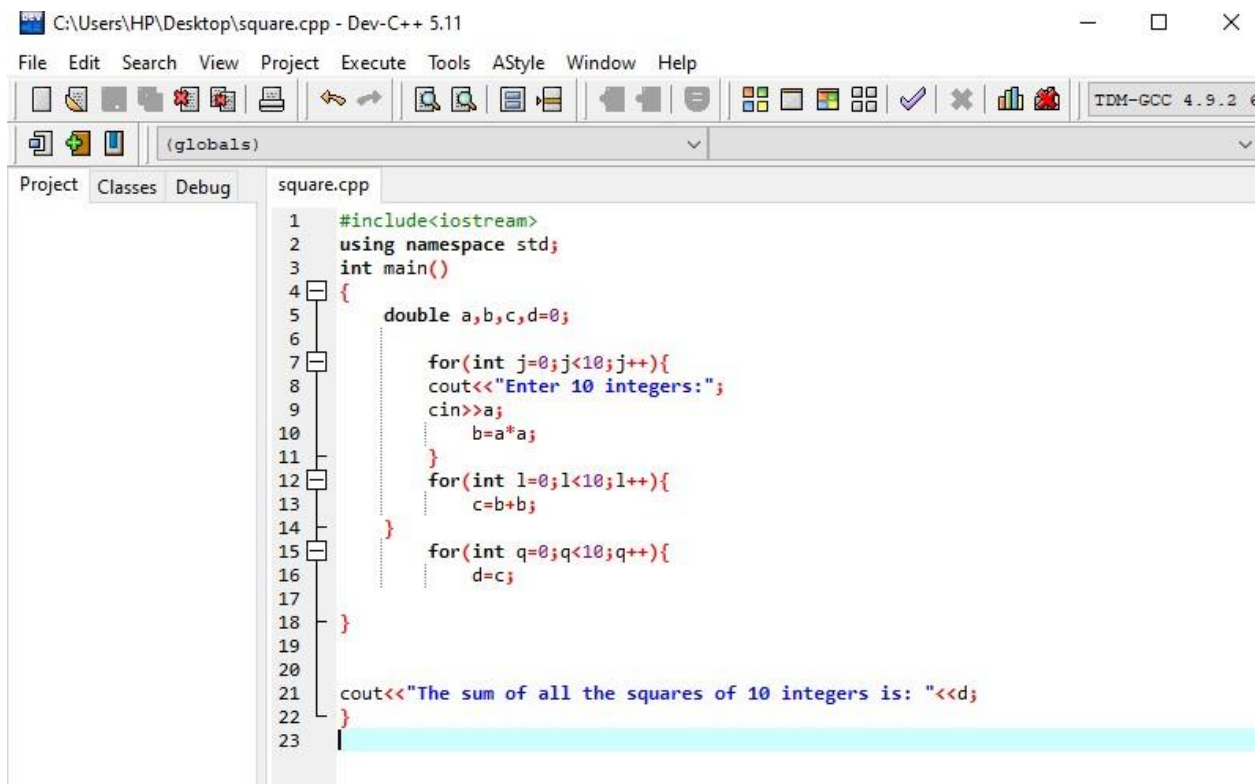
}
```



```
C:\Users\HP\Desktop\square.exe
65,44,27,14,5,0,-1,2,9,20,
-----
Process exited after 0.07778 seconds with return value 0
Press any key to continue . . .
```

Q2:- (b)

Code the following scenario, input 10 numbers from the user and take the sum of squares of each number stored in the array. Display the answer at end.



```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     double a,b,c,d=0;
6
7     for(int j=0;j<10;j++){
8         cout<<"Enter 10 integers:";
9         cin>>a;
10        b=a*a;
11    }
12    for(int l=0;l<10;l++){
13        c=b+b;
14    }
15    for(int q=0;q<10;q++){
16        d=c;
17    }
18 }
19
20
21 cout<<"The sum of all the squares of 10 integers is: "<<d;
22 }
23
```

C:\Users\HP\Desktop\square.exe

```
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
Enter 10 integers:2
The sum of all the squares of 10 integers is: 8
-----
Process exited after 5.122 seconds with return value 0
Press any key to continue . . .
```


Q3 (a)

Code a function that reads a non-negative number (for example 8) and prints it in the following manner. 8 = 8, 7, 6, 5, 4, 3, 2, 1

```
#include<iostream>

using namespace std;

int main()
{
    int a;

    cout<<"enter a positive integer:";

    cin>>a;if(a>=0){

        cout<<a<<"=";

        for(int i=a;i>0;i--){

            cout<<i<<",";

        }

    }

    else{

        cout<<"\nThe integer is not positive";
```

```
}
```

```
}
```

C:\Users\HP\Desktop\square.exe

```
enter a positive integer: 23
```

```
23=23,22,21,20,19,18,17,16,15,14,13,12,11,10,9,8,7,6,5,4,3,2,1,
```

```
-----
```

```
Process exited after 7.411 seconds with return value 0
```

```
Press any key to continue . . .
```

Q4:- A

Q4 4 A part

```
#include <iostream>
using namespace std;
int main()
{
    int n;
    while (n >= 0) {
        cout << n*n << "\n"; --n;
    }
    cout << n << "\n";
    while (n < 4) {
        cout << n++ << "\n";
        cout << n << "\n";
    }
    while (n >= 0) {
        cout << n << "\n";
    }
}
```

Q4 (b)

C:\Users\HP\Desktop\square.exe

```
9
4
1
0
-1
-1
0
1
2
3
4
-----
Process exited after 0.08674 seconds with return value 0
Press any key to continue . . .
```