

1. Write a c++ program to print the name of the student by creating a student class . If number and name is passed while creating the object of a student class;then the name should be unknown otherwise the name should be equal to screen value while creating the object of the student class?

**PROGRAM:**

The screenshot shows an IDE with a C++ program for a student class. The code defines a `student` class with two constructors: a default constructor that sets `no=0` and `name="unknown"`, and a parameterized constructor that takes an integer `x` and a character array `y`. The `display` method prints the roll number and name. In the `main` function, a student object is created with roll number 0 and name 'k'.

```
1 using namespace std;
2 #include<iostream>
3 class student
4 {
5     int no;
6     char*name;
7 public:
8     student();
9     student(int, char*);
10    void display();
11 };
12 student::student()
13 {
14     no=0;
15     name="unknown";
16 }
17 student::student(int x, char*y)
18 {
19     no=x;
20     *name=y;
21 }
22 void student::display()
23 {
24     cout<<"no="<<no;
25     cout<<"name="<<name;
26 }
27 main()
28 {
29     student s(0, "k");
30     s.display();
31 }
```

The execution window shows the output: "no=0" and "name=k". The console also displays a message: "process exited after 0.5289 seconds with return value 3221225477".

2. Create a class name rectangle with two data members length and breadth and a function to calculate the area of the rectangle. This class contains three constructor , one is having no parameters , two is having two parameters and last one is having only one parameter?

**PROGRAM:**

The screenshot shows an IDE with the following components:

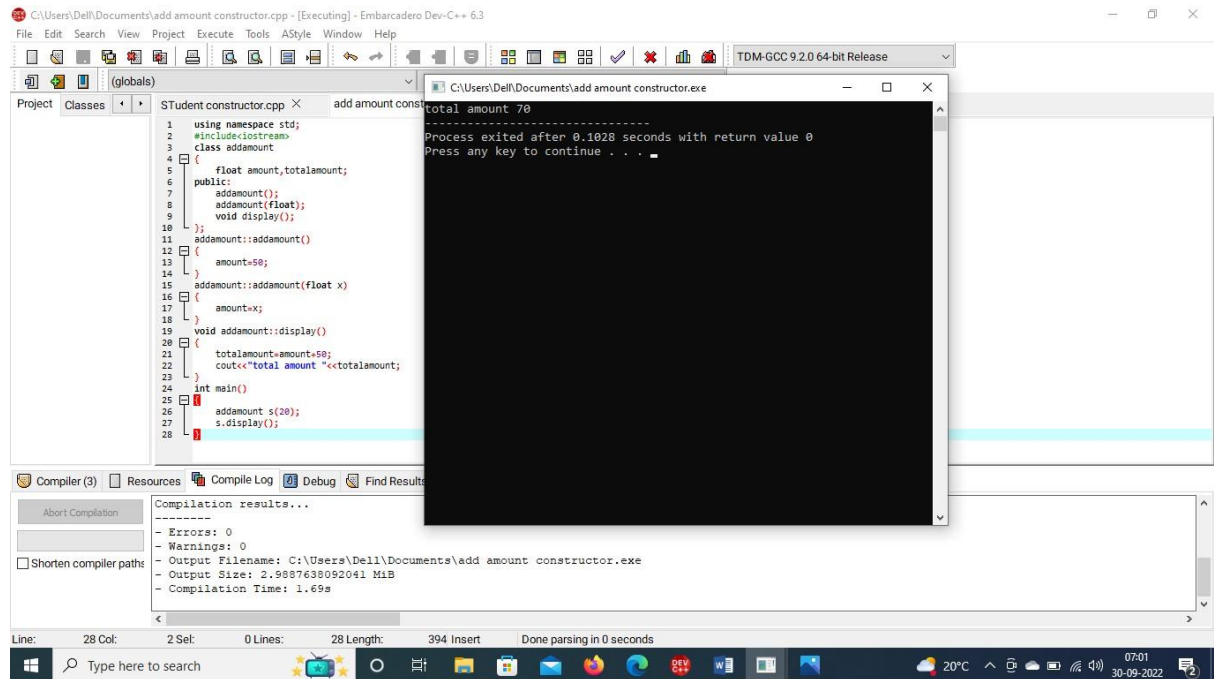
- Editor:** Displays `rectangle constructor.cpp` with the following code:

```
1 using namespace std;
2 #include <iostream>
3 class rectangle
4 {
5     int l,b,a;
6 public:
7     rectangle();
8     rectangle(int,int);
9     rectangle(int);
10    void display();
11};
12 rectangle::rectangle()
13 {
14     l=0;
15     b=0;
16 }
17 rectangle::rectangle(int x,int y)
18 {
19     l=x;
20     b=y;
21 }
22 rectangle::rectangle(int a)
23 {
24     a=a;
25 }
26 void rectangle::display()
27 {
28     a=l*b;
29     cout<<"area of rectangle "<<a;
30 }
31 int main()
32 {
33     rectangle r(4,6);
34     r.display();
35 }
```
- Compiler (3):** Shows compilation results:
  - Errors: 0
  - Warnings: 0
  - Output Filename: C:\Users\Dell\Documents\rectangle constructor.exe
  - Output Size: 2,9888334274292 MiB
  - Compilation Time: 1.50s
- Output Window:** Displays the execution output:

```
area of rectangle 24
-----
Process exited after 0.09187 seconds with return value 0
Press any key to continue . . .
```

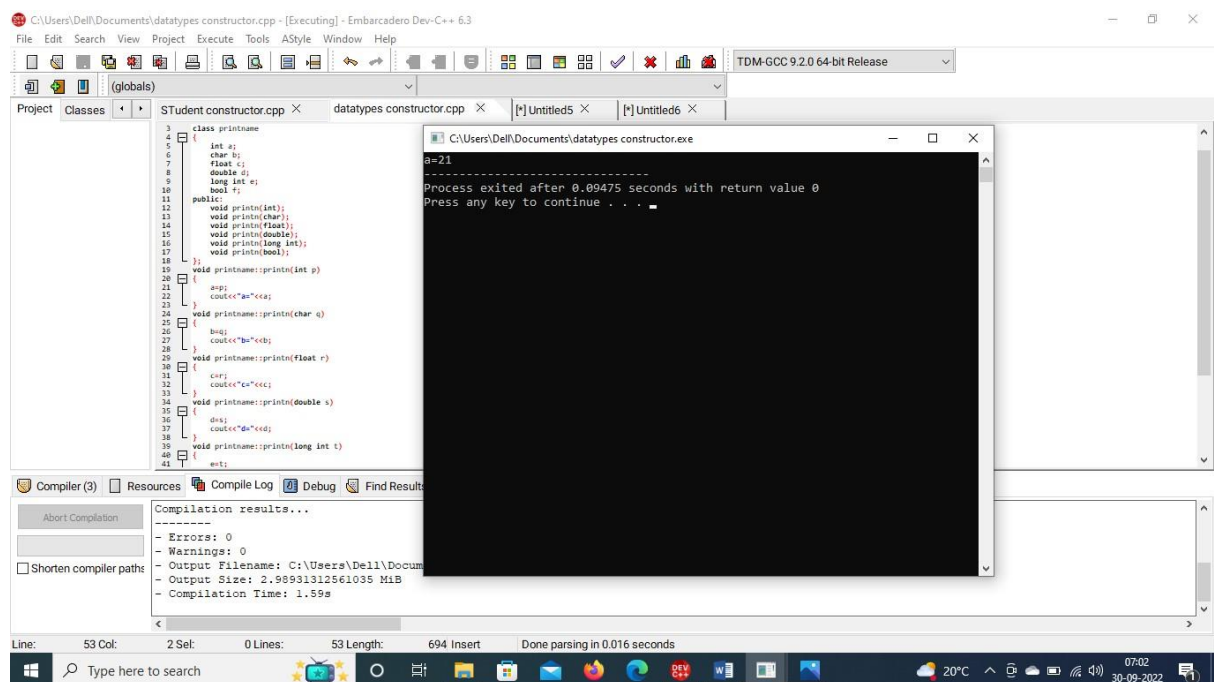
3. Create a class had amount with the data member is amount with initial values is 50. Now make two constructor with their class i.e., no parameter ,then no amount is added and having parameters , then the amount is added into your account?

PROGRAM:



4. Create a class name print number to print various numbers of different functions with same name printn; having a parameter for each datatype?

PROGRAM:



5. Create a class to print an integer and character using truth function having the same name but different sequences of integer and character parameters?

PROGRAM:

```

1 using namespace std;
2 #include <iostream>
3 class printint
4 {
5     int a;
6     char b;
7 public:
8     void print(int, char);
9     void print(char, int);
10 };
11 void printint::print(int x, char y)
12 {
13     a=x;
14     b=y;
15     cout<<"a="<<a<<"\n";
16     cout<<"b="<<b;
17 }
18 void printint::print(char y, int x)
19 {
20     b=y;
21     a=x;
22     cout<<"a="<<a<<"\n";
23     cout<<"b="<<b;
24 }
25 main()
26 {
27     printint z;
28     z.print(12, 'y');
29 }

```

Compilation results...

```

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Del1\Documents\printn same.exe
- Output Size: 2.98912906646729 MiB
- Compilation Time: 1.61s

```

6. Create a class student with three data ,members which are name, age and address . The constructor of the number as 0, address as not available. It has two functions with same name "said info".The first function is two parameters : name and age and second one is three parameters : name , age and address respectively .Print this details of 10 students?

PROGRAM:

```

3 class student
4 {
5     char name[20], address[40];
6     int rollno;
7 public:
8     void getData();
9     void display();
10 };
11 void student::getData()
12 {
13     cout<<"Enter the student Name:";
14     cin>>name;
15     cout<<"Enter the student roll no:";
16     cin>>rollno;
17     cout<<"Enter the student address:";
18     cin>>address;
19 }
20 void student::display()
21 {
22     cout<<"\nEntered Student Details are shown below=";
23     cout<<"Name: "<<name<<"\n";
24     cout<<"rollno: "<<rollno<<"\n";
25     cout<<"address: "<<address<<"\n";
26 }
27 int main()
28 {
29     student s[10];
30     for(int i=0; i<10; i++)
31     {
32         s[i].getData();
33     }
34     for(int j=0; j<10; j++)
35     {
36         s[j].display();
37     }
38     return 0;
39 }

```

Compilation results...

```

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Del1\Documents\student details constructor.exe
- Output Size: 2.98915958404541 MiB
- Compilation Time: 1.61s

```