(28-09-2022) C++ PROGRAMS

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PROGRAM – 1:

C ++ Program to print the student details using constructor.

```cpp
#include<iostream>
#include<string.h>
using namespace std;
class student
{
        private:
                int no;
                char name[20];
        public:
                student()
                {
                        cout<<"Enter the value of name = ";
                        cin>>name;
                        cout<<"Enter the reg no = ";
                        cin>>no;
                }
                void display()
                {
                        cout<<"\n\n";
                        cout<<"STUDENT DETAIL";
                        cout<<"\n\n";
                        cout<<"Student name is "<<name;
                        cout<<"\nRegis number = "<<no;
                }
};
int main()
{
        student s;
        s.display();
        return 0;
}
```

OUTPUT:

```
Enter the value of name = uday
Enter the reg no = 192110467


STUDENT DETAIL

Student name is uday
Regis number = 192110467
---------------------------------
Process exited after 17.77 seconds with return value 0
Press any key to continue . . .
```
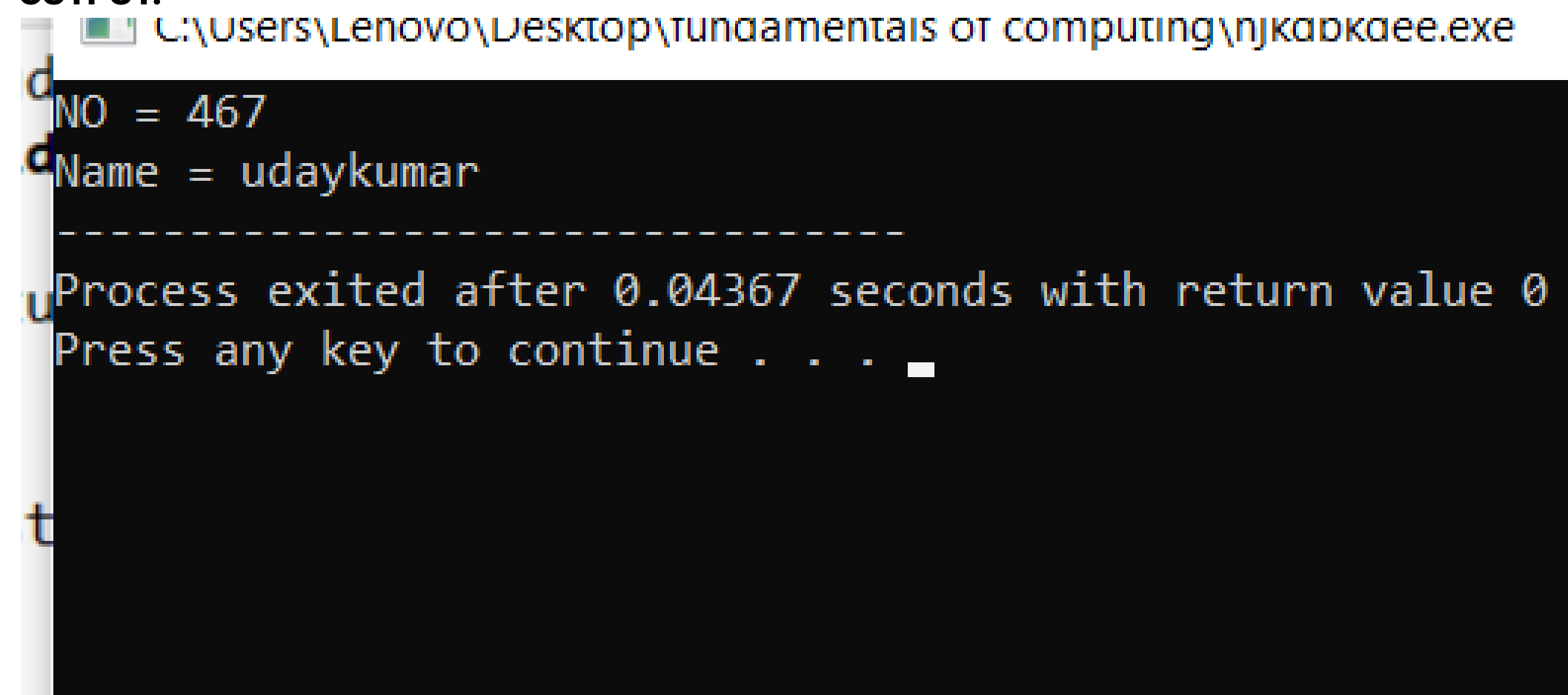
PROGRAM – 2:

C++ Program to print the name of the student by creating class, number and name is pass while creating a object, the name should be unknown otherwise the name should be equal to the string value while creating the object of the student class.

```cpp
#include<iostream>
using namespace std;
class student
{
        int no;
        char *name;
        public:
                student();
                student(int,char*);
                void disp();
};
student::student()
{
}
student::student(int x,char* y)
{
        no=x;
        name=y;
}
void student::disp()
{
        cout<<"NO = "<<no;
        cout<<"\nName = "<<name;
}
int main()
{
        student s(467,"udaykumar");
```

```
        s.disp();
}
```

OUTPUT:

PROGRAM – 3:

Create a class name Rectangle with two data member length and breadth and the function to calculate Area o rectangle this contain three having no parameter, having two parameter, and another function contains one parameters.

```cpp
#include<iostream>
using namespace std;
class rectangle
{
        public:
        int l,b,a;
        rectangle()
        {
        }
        rectangle(int x,int y)
        {
                l=x;
                b=y;
        }
        rectangle(int z)
        {
                z=l*b;
        }
        void cal()
        {
                a=l*b;
                cout<<"The Area of the Given value = "<<a;
        }
};
```

```cpp
int main()
{
        rectangle r(7,7);
        r.cal();
        return 0;
}
```
OUTPUT:
Area of the Given value:49

PROGRAM – 4:

Write a C++ program to create a class add amount data members amount initial value of 50,two constructor without parameter i.e, no amount and the second function contains parameter amount will be added in your account . create an object and display the final amount.

```cpp
#include<iostream>
using namespace std;
class addamount
{
        public:
        int a,b,c;
        addamount()
        {

        }
        addamount(int x)
        {
                b=x;
        }
        void display()
        {
                a=700;
                c=a+b;
                cout<<"The Total amount = "<<c;
        }
};
int main()
{
        addamount b(800);
        b.display();
}
```
OUTPUT:

```
The Total amount = 1500
-------------------------------
Process exited after 0.0411 seconds with return value 0
Press any key to continue . . .
```

PROGRAM -5:

Create a class print number to print various no of different data types like creating different functions with same name printn having a parameters for each data types.

```cpp
#include<iostream>
using namespace std;
class printnumber
{
        int a;
        float b;
        char c;
        double d;
        long e;
        bool f;
        public:
                void printn(int x)
                {
                        a=x;
                }
                void printn(float y)
                {
                        b=y;
                }
                void printn(char z)
                {
                        c=z;
                }
                void printn(double p)
                {
                        d=p;
                }
                void printn(long q)
                {
                        e=q;
                }
```
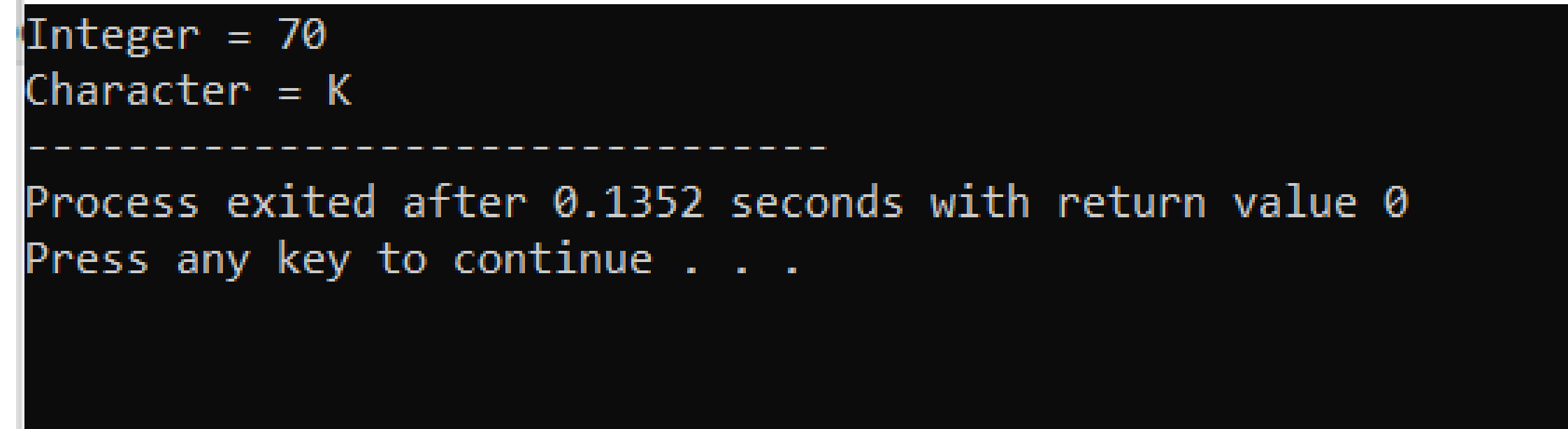
```cpp
                void printn(bool r)
                {
                        f=r;
                }
                void num()
                {
                        cout<<"Integer = "<<a;
                        cout<<"\nCharacter = "<<c;
                }
};
int main()
{
        printnumber u;
        u.printn(70);
        u.printn('K');
        u.num();
}
```

OUTPUT:

```
Integer = 70
Character = K
--------------------------------
Process exited after 0.1352 seconds with return value 0
Press any key to continue . . .
```

PROGRAM – 6:

Create a class to print an integer and character using two function having same name by different sequence of integer and character.

```cpp
#include<iostream>
using namespace std;
class operate
{
        int a;
        char b;
        public:
                void print(int x, char y)
                {
                        a=x;
                        b=y;
                }
                void print(char z, int w)
                {
                        a=w;
```

```cpp
                b=z;
            }
            void display()
            {
                cout<<"number = "<<a;
                cout<<"\nname = "<<b;
            }
            void display1()
            {
                cout<<"\nname = "<<b;
                cout<<"\nnumber = "<<a;
            }
};
int main()
{
        operate o;
        o.print(1,'X');
        operate o1;
        o1.print('X',1);
        o.display();
        o1.display1();
}
```

OUTPUT:

```
number = 7
name = U
name = U
number = 7
-------------------------------
Process exited after 0.03163 seconds with return value 0
Press any key to continue . . .
```