C++ PROGRAMS

Polymorphism

C++ Program for Early Binding.

```
#include<iostream>
using namespace std;

class Animals
{
        public:
                void show()
                {
                        cout << "This is parent class" << endl;
                }
};

class Dogs : public Animals
{
        public:
                void show()
                {
                        cout << "Dogs bark" << endl;
                }
};

int main()
{
        Animals *a;
        Dogs d;
        a= &d;
        a -> show();   //  early binding
        return 0;
}
```

C++ Program for Late Binding.

```
#include<iostream>
using namespace std;
class Animals
{
        public:
                virtual void show()
                {
                        cout << "This is parent class" << endl;
                }
};

class Dogs : public Animals
{
        public:
                void show()
                {
```

```
                        cout << "Dogs bark" << endl;
                }
};

int main()
{
        Animals *a;
        Dogs d;
        a= &d;
        a -> show();
        return 0;
}
```

C++ Program for Virtual function.

```
#include<iostream>
using namespace std;
class Animals
{
        public:
                virtual void show()
                {
                        cout << "This is parent class" << endl;
                }
};

class Dogs : public Animals
{
        public:
                void show()
                {
                        cout << "Dogs bark" << endl;
                }
};

int main()
{
        Animals *a;
        Dogs d;
        a= &d;
        a -> sound();
        return 0;
}
```

C++ Program for Pure virtual Function and Abstract Class.

```
#include<iostream>
using namespace std;
class Animals
{
        public:
                virtual void sound() = 0;
};

class Dogs
{
```

```
        public:
                void sound()
                {
                        cout << "Dogs bark" << endl;
                }
};

class Cats
{
        public:
                void sound()
                {
                        cout << "Cats meow" << endl;
                }
};

class Pigs
{
        public:
                void sound()
                {
                        cout << "Pigs snort" << endl;
                }
};

int main()
{
        Dogs d;
        Cats c;
        Pigs p;
        d.sound();
        c.sound();
        p.sound();
        return 0;
}
```