2.Implement a C++ program to demonstrate single Inheritance

Code:-

**#include <iostream>**

**#include <string>**

**// Base class**

**class Animal {**

**protected:**

**std::string name;**

**public:**

**Animal(const std::string& \_name) : name(\_name) {}**

**void eat() {**

**std::cout << name << " is eating." << std::endl;**

**}**

**};**

**// Derived class inheriting from Animal**

**class Dog : public Animal {**

**public:**

**Dog(const std::string& \_name) : Animal(\_name) {}**

**void bark() {**

**std::cout << name << " is barking." << std::endl;**

**}**

**};**

**int main() {**

**Dog myDog("Buddy");**

**myDog.eat(); // Inherited from the base class**

**myDog.bark(); // Defined in the derived class**

**return 0;**

**}**