```java
class Book {
    String author, title, publisher;
    public Book(String a, String t, String p) {
        author = a;
        title = t;
        publisher = p;
    }
    public void show()  {
        System.out.println("\nAuthor    : " + author);
        System.out.println("Title     : " + title);
        System.out.println("Publisher: " + publisher);
    }
}
class BookInfo extends Book {
    float price;
    int stock;
    public BookInfo(String a, String t, String p, float pr, int st)
{
        super(a, t, p);
        price = pr;
        stock = st;
    }
    public void show() {
        super.show();
        System.out.println("Price: " + price);
        System.out.println("Stock: " + stock);
    }
}
public class MyBookInfo {
    public static void main(String[] args) {
        BookInfo b1 = new BookInfo("Galvin", "OS Concepts",
"Unknown", 450, 57);
        b1.show();
    }
}
```

```
C:\Users\3atha\code\study\oosw\expt-5\single
λ javac MyBookInfo.java

C:\Users\3atha\code\study\oosw\expt-5\single
λ java MyBookInfo

Author    : Galvin
Title     : OS Concepts
Publisher: Unknown
Price: 450.0
Stock: 57
```

```java
class Living {
    public void display()  {
        System.out.println("I am alive!");
    }
}
class Animal extends Living {
    public void display() {
        super.display();
        System.out.println("I can walk!");
    }
}
class Bird extends Animal {
    public void display() {
        super.display();
        System.out.println("I can fly!");
    }
}
public class MultilevelDemo {
    public static void main(String[] args) {
        Bird parrot = new Bird();
        parrot.display();
    }
}
```

```
C:\Users\3atha\code\study\oosw\expt-5\multilevel
λ javac MultilevelDemo.java

C:\Users\3atha\code\study\oosw\expt-5\multilevel
λ java MultilevelDemo
I am alive!
I can walk!
I can fly!
```

```java
class Living {
    public void display() {
        System.out.println("I am alive!");
    }
}

class Animal extends Living {
    public void display() {
        super.display();
        System.out.println("I can move!");
    }
}

class Plant extends Living {
    public void display() {
        super.display();
        System.out.println("I have leaves!");
    }
}

public class HierarchicalDemo {
    public static void main(String[] args) {
        Animal dog = new Animal();
        dog.display();
        Plant oak = new Plant();
        oak.display();
    }
}
```

```
C:\Users\3atha\code\study\oosw\expt-5\hierarchical
λ javac HierarchicalDemo.java

C:\Users\3atha\code\study\oosw\expt-5\hierarchical
λ java HierarchicalDemo
I am alive!
I can move!
I am alive!
I have leaves!
```

```cpp
#include <iostream>

using namespace std;

class Terrestial
{
  public:
    void display()
    {
        cout << "We live on land!" << endl;
    }
};

class Aquatic
{
  public:
    void display()
    {
        cout << "We live in water!" << endl;
    }
};

class Amphibian: public Terrestial, public Aquatic
{
  public:
    void display()
    {
        Terrestial::display();
        Aquatic::display();
        cout << "We are amphibians!" << endl;
    }
};

int main()
{
    Amphibian frog;
    frog.display();
    return 0;
}
```

```
C:\Users\3atha\code\study\oosw\expt-5\multiple
λ g++ MultipleDemo.cpp -o MultipleDemo.exe

C:\Users\3atha\code\study\oosw\expt-5\multiple
λ MultipleDemo.exe
We live on land!
We live in water!
We are amphibians!
```

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

class Animal
{
  public:
    void display()
    {
        cout << "We can move!" << endl;
    }
};

class Mammal: virtual public Animal
{
  public:
    void display()
    {
        cout << "We have mammary glands!" << endl;
    }
};

class Bird: virtual public Animal
{
  public:
    void display()
    {
        cout << "We can fly!" << endl;
    }
};

class Bat: public Mammal, public Bird
{
  public:
    void display()
    {
        Animal::display();
        Mammal::display();
        Bird::display();
        cout << "We are bats!" << endl;
    }
};

int main()
{
    Bat b;
    b.display();
    return 0;
}
```

```
C:\Users\3atha\code\study\oosw\expt-5\hybrid
λ g++ HybridDemo.cpp -o HybridDemo.exe

C:\Users\3atha\code\study\oosw\expt-5\hybrid
λ HybridDemo.exe
We can move!
We have mammary glands!
We can fly!
We are bats!
```