Task 2: Inheritance & Interfaces

• Implement the concepts of Method overloading, constructor and Method Overriding.

• Make use of this, super, static, and final keywords

• Construct the program using interface

Coding :

```
interface CafeService {
    void serve();   // abstract method
}
// Parent class
class Cafe {
    protected String cafeName;
    static final String TYPE = "Food & Beverage"; // static + final
    // Constructor
    Cafe(String cafeName) {
        this.cafeName = cafeName; // this keyword
    }
    // Method Overloading
    void display() {
        System.out.println("Cafe Name: " + cafeName);
    }
    void display(String location) {
        System.out.println("Cafe Name: " + cafeName + ", Location: " + location);
    }

    // Method to be overridden
    void welcome() {
```

```java
        System.out.println("Welcome to the Cafe!");

    }

}

// Child class using inheritance and interface

class OnlineCafe extends Cafe implements CafeService {

    // Constructor

    OnlineCafe(String cafeName) {

        super(cafeName); // super keyword

    }

    // Method Overriding

    @Override

    void welcome() {

        super.welcome(); // calling parent method

        System.out.println("Welcome to the Online Cafe Ordering System!");

    }

    // Interface method implementation

    public void serve() {

        System.out.println("Serving food through online orders.");

    }

}

// Main class

public class InheritanceDemo {

    public static void main(String[] args) {

        OnlineCafe cafe = new OnlineCafe("Online Cafe");

        cafe.welcome();              // overridden method

        cafe.display();             // overloaded method

        cafe.display("Chennai");    // overloaded method

        cafe.serve();               // interface method

        // static + final variable
```

```java
        System.out.println("Cafe Type: " + Cafe.TYPE);

    }

}
```

Output :

```
Microsoft Windows [Version 10.0.26100.7462]
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C:\Users\vivobook\OneDrive\Desktop\VTP4916\FoodManagement>javac InheritanceDemo.java

C:\Users\vivobook\OneDrive\Desktop\VTP4916\FoodManagement>java InheritanceDemo
Welcome to the Cafe!
Welcome to the Online Cafe Ordering System!
Cafe Name: Online Cafe
Cafe Name: Online Cafe, Location: Chennai
Serving food through online orders.
Cafe Type: Food & Beverage

C:\Users\vivobook\OneDrive\Desktop\VTP4916\FoodManagement>
```