

Lab – Java - Interfaces

Overview

Write a program that uses interfaces.

Part 1 – Main Class

Create a class called Main that has a main method.

Part 2 – Displayable Interface

Create an interface.

Displayable Interface Methods

void display();

Part 3 – Employee Class

Create a class named Employee.

- It should contain a member variable for id.
- It should implement the Displayable interface. Just print the name on the screen.

Part 4 – Movie Class

Create a class named Movie.

- It should contain a member variable for title.
- It should implement the Displayable interface. Just print the title on the screen.

Part 5 – Main Code

In main, create two Displayable type variables. Put an instance of Employee in one and an instance of Movie in the other. Call the display method on both instances.

Challenge – Also create a two-element array of Displayable. Put an instance of Employee in one element and an instance of Movie in the other. Write a loop that calls display on all elements of the array.

Part 6 – Savable Interface

Create an interface.

Saveable Interface Methods

void save(String filename);

Part 7 – Update Classes

Update both classes so that they implement the Savable interface. Make them save to a file using a `PrintStream`.

Part 8 – Update Main Code

In main, create two Savable type variables. Put an instance of `Employee` in one and an instance of `Movie` in the other. Call the `save` method on both instances.

Challenge – Write a static method that takes a Savable variable and a filename string as parameters. Inside the method just call `save` on the parameter.