

Java Programming

5-2: Input and Output Fundamentals

Practice Activities

Lesson Objectives:

- Use streams to read and write files
- Read and write objects by using serialization

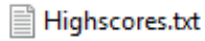
Vocabulary:

Identify the vocabulary word for each definition below.

	The process of converting a stream of data into an object.
	Sequences of bytes or characters transmitted from one program to another program or a file.
	A back slash in front of another character makes Java treat the next character as an ordinary character.
	The process of converting a stream of data into an object.
	Sequences of bytes or characters transmitted from another program or user's activity.
	A file name that maps to another file.
	A path that is direct rather than indirect.
	This is the output stream for error raised by a program, also known as the second channel.
	The join of two related paths, or the remaining part of a join after subtracting part of the path.
	Types of standard input, output, and error; and qualified object types in Java.
	The output for debugging message and ordinary reports and messages.
	Any keyboard, mouse, or touchscreen input to a program.
	The process of converting an object or file to a series of bytes.

Try It/Solve It:

1. Create a class with a static main that tests the ability to resolve and print a Path:
 - a) Create an instance of a FileSystem class.
 - b) Resolve an instance of a Path interface from a directory and filename path.



- c) Print the constructed Path with `System.out.println()` method.
2. Open the accountgenerator project that was introduced in the practice exercises for section 4_1.
- a) The `Employee` class should implement the `Serializable` interface so that it can be Serialized.
 - b) To test serialization create a `serializeData` method in the `AccountGenerator` class that accepts an `Employee` object as a parameter and does not return a value. Serialize the object to file named `employee.ser` in the project folder.
 - c) To test de-serialization create a `deSerialize` method in the `AccountGenerator` class that does not accept any parameters and returns an `Object` value. The `deSerialize` method should throw a `ClassNotFoundException`. The object should be read from the `employee.ser` file in the project folder.
 - d) To test de-serialization create a `deSerialize` method in the `AccountGenerator` class that does not accept any parameters and returns an `Object` value. The `deSerialize` method should throw a `ClassNotFoundException`. The object should be read from the `employee.ser` file in the project folder.