

What is a File?

- So far we have only made applications that store data in the computer's memory
 - Only available when the computer is on and the application is running
- A file is a
 - Collection of related data
 - Stored on a persistent(lasting) medium (such as a hard disk or CD)
- Files are used to store data that is either
 - Needed for the program to run, or
 - Generated by the application
- Files are separate from the applications
- **MOST** applications require access to one or more files on disk.

The File Class

- The File class is part of the java.io package
- Used for creating an object that represents a file
- A File Object:
 - Can be used to create a new file
 - Test for the existence of a file
 - Delete a file

Some methods:

Method	Description
Constructor: <code>File(String f)</code>	Creates a File object that refers to the file <code>f</code> .
<code>createNewFile()</code>	Creates a new file using the file name specified in the constructor if the file does not already exist. Returns <code>true</code> if the file is created, <code>false</code> otherwise. This method throws an <code>IOException</code> exception if the file cannot be created.
<code>delete()</code>	Permanently deletes the file represented by the File object. Returns <code>true</code> if the file is deleted, <code>false</code> otherwise.
<code>exists()</code>	Returns <code>true</code> if the file represented by the File object exists, <code>false</code> otherwise

ICS4U Module 5: Note ↓ Exercise 2a

Example: Checks for the existence of a file:

```
import java.io.*;

public class TestFiles {

    public static void main(String[] args) {

        File textFile = new File("c:\\temp\\supplies.txt");
        if(textFile.exists()) {
            System.out.println("File already exists.");
        } else {
            System.out.println("File does not exist.");
        }
    }
}
```

Programming Exercise:

Create a MyFile application that prompts the user for the name of a file and then displays a message that indicates whether the files exists or not.

Do not submit your code yet.