

PROGRAMMING

Lecture 22

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TODAY'S TOPIC

- File Handling
- Coursework discussion

FILE HANDLING

- File handling in Java means that how to read from and write to file in Java.
- Java provides the basic I/O package for reading and writing streams. `java.io` package allows to do all Input and Output tasks in Java.

FILE CLASS ETHODS

Method Name	Description	Return Type
canRead()	It tests whether the file is readable or not.	Boolean
canWrite()	It tests whether the file is writable or not.	Boolean
createNewFile()	It creates an empty file.	Boolean
delete()	It deletes a file.	Boolean
exists()	It tests whether the file exists or not.	Boolean
length()	Returns the size of the file in bytes.	Long
getName()	Returns the name of the file.	String
list()	Returns an array of the files in the directory.	String[]
mkdir()	Creates a new directory.	Boolean
getAbsolutePath()	Returns the absolute pathname of the file.	String

FILE OPERATIONS IN JAVA

The following are the several operations that can be performed on a file in Java :

- **Create a File**
- **Read from a File**
- **Write to a File**
- **Delete a File**

CREATING A FILE

```
package week21;

import java.io.File;
import java.io.IOException;

public class FileDemo {

    public static void main(String[] args) throws IOException {
        File file = new File("file.txt");
        file.createNewFile();
    }
}
```

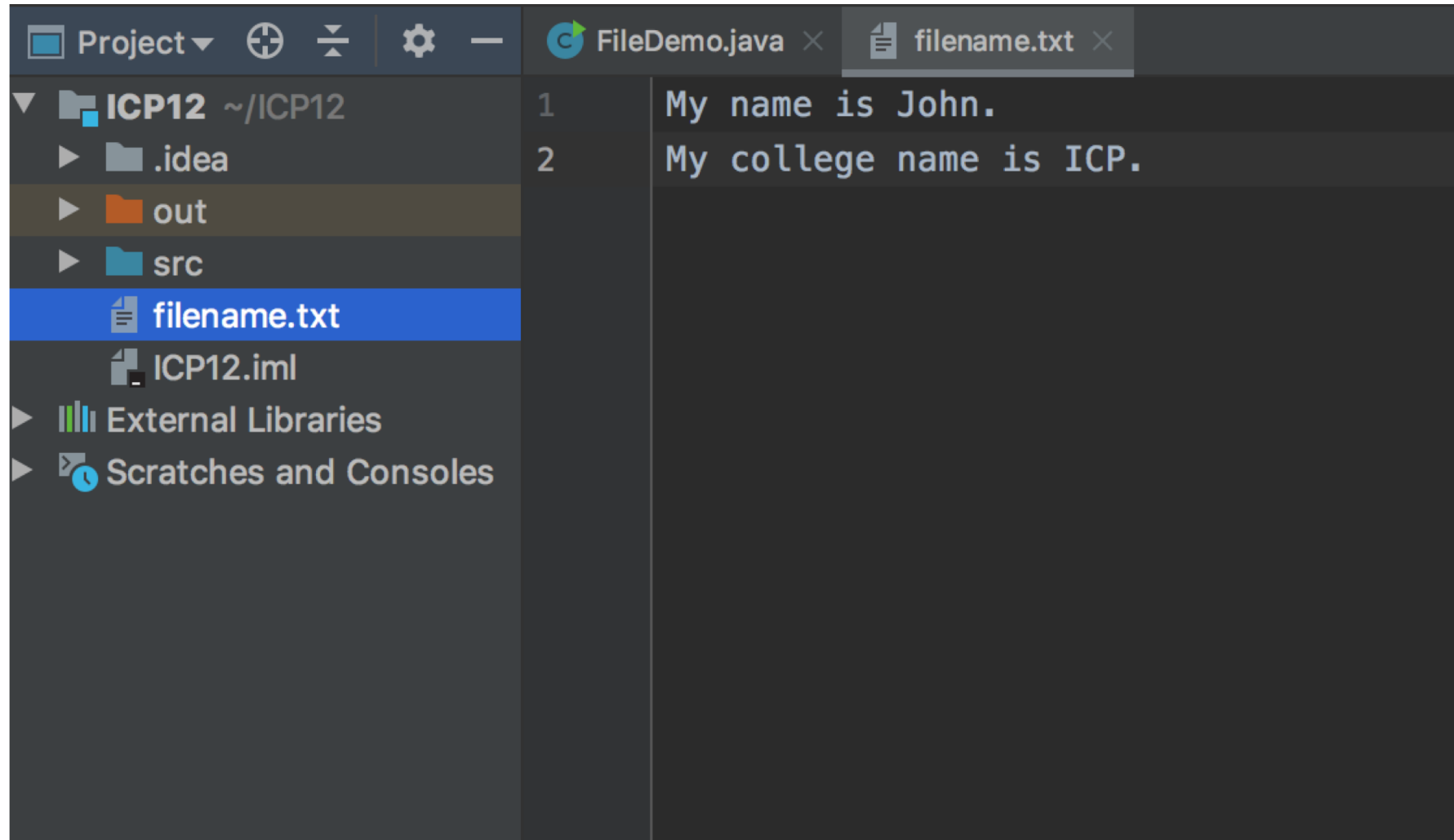
FILE WRITING

```
package week21;

import java.io.FileWriter;
import java.io.IOException;

public class FileWriterDemo {
    public static void main(String[] args) {
        try {
            FileWriter myWriter = new FileWriter("filename.txt");
            myWriter.write("My name is John.");
            myWriter.write("\nMy college name is ICP.");
            myWriter.close();
            System.out.println("Successfully wrote to the file.");
        } catch (IOException e) {
            System.out.println("An error occurred.");
            e.printStackTrace();
        }
    }
}
```

OUTPUT



The screenshot shows an IDE interface with a project named "ICP12" located at "~/ICP12". The project structure includes a ".idea" folder, an "out" folder, a "src" folder, and a file named "filename.txt". The "filename.txt" file is selected, and its content is displayed in the editor. The content consists of two lines of text: "My name is John." and "My college name is ICP.".

```
1 My name is John.  
2 My college name is ICP.
```


FILE READING

```
package week21;

import java.io.File;
import java.io.FileNotFoundException;
import java.util.Scanner;

public class FileReaderDemo {
    public static void main(String[] args) {
        try {
            File myObj = new File("filename.txt");
            Scanner myReader = new Scanner(myObj);
            while (myReader.hasNextLine()) {
                String data = myReader.nextLine();
                System.out.println(data);
            }
            myReader.close();
        } catch (FileNotFoundException e) {
            System.out.println("An error occurred.");
            e.printStackTrace();
        }
    }
}
```

OUTPUT

```
My name is John.  
My college name is ICP.
```

FILE DELETING

```
package week21;

import java.io.File;

public class FileDemo {
    public static void main(String[] args) {
        File myFile = new File("filename.txt");
        if (myFile.delete()) {
            System.out.println("Deleted the file: " + myFile.getName());
        } else {
            System.out.println("Failed to delete the file.");
        }
    }
}
```

OUTPUT

```
Deleted the file: filename.txt
```

THANK YOU!

Any questions?