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Create a file

- **java.io.File** class can be used to create a new File in Java.
- When we initialize File object, we provide the filename and then we can call **createNewFile()** method to create a new file in Java.
- This method returns boolean true if new file is created and false if file already exists.
- This method also throws **java.io.IOException** when it's not able to create the file. The files created is empty and of zero bytes.
- While creating the file path, we should use System property "**file.separator**" to make our program platform independent.

Delete a file

- To delete a file in java, `java.io.File delete()` method can be used to delete files or empty directory/folder in java.
- It returns **true** if file gets deleted and returns **false** if file doesn't exist.
- If you are trying to delete a directory, it checks if it's empty or not.
- If directory is empty, it gets deleted else `delete()` method doesn't do anything and return false.
- Notice that unlike `createNewFile()`, `delete` method doesn't throw `IOException`.

File Separators

- `java.io.File` class contains four static separator variables.
- **Separator:** Platform dependent default name-separator character as `String`. For windows, it's `'\\'` and for unix it's `'/'`.
- **SeparatorChar:** Same as separator but it's `char`.
- **PathSeparator:** Platform dependent variable for path-separator. For example `PATH` or `CLASSPATH` variable list of paths separated by `':'` in Unix systems and `';'` in Windows system.
- **PathSeparatorChar:** Same as `pathSeparator` but it's `char`.
- Note that all of these are `final` variables and system dependent.

Temp File

- **java.io.File** class can be used to create temp files in java.
- Sometimes we need to create temporary files to be used by our application and there are two methods using which we can create temp file.
 - **createTempFile(String prefix, String suffix, File directory):** This method creates a file with given suffix and prefix in the directory argument.
 - The directory should already be existing and should be a directory, else it throws exception.
 - The file name is created with random long number, so the file name becomes prefix+random_long_no+suffix.
 - The prefix String should be minimum three characters long. If suffix is null, “.tmp” suffix is used.

Temp File

- If directory is null, then temp file is created in operating system temp directory.
- **createTempFile(String prefix, String suffix):** It's easy way to create temp file in operating system temp directory.

Read File to String

- Sometime while working on files, we need to read complete file to String in java, we can do this in various ways:
 - a. Using Apache Commons IO
 - b. BufferedReader
 - c. Scanner and
 - d. **java 7 Files** class

Open a File

- `java.awt.Desktop` can be used to open a file in java.
- This method is platform dependent, so first we should check if the operating system supports Desktop or not.
- This class looks for the associated application registered to the current platform to open a file.
- If we try to open a file that doesn't exist, it throws `java.lang.IllegalArgumentException`.
- Text file will be opened in the default text editor. Similarly PDF file will be opened in adobe acrobat reader.
- If there are no application associated with given file type or the application is failed to launch, open method throws `java.io.IOException`.