

Title: Read files from sub directories of class path resource folder in spring boot

Post Body:

I would like to read files from sub directories of resource folder. I am facing issues with jar execution.

This is my directory structure.

```
src/main/resources |_ Conf |_ conf1 |_ config.txt |_ conf2 |_ config.txt
```

Here, I am trying to read `config.txt` files from all sub directories of `Conf` folder. I do not know what sub directories `Conf` will have. I know the classpath till `Conf`. So, I will give classpath till `Conf` and trying to get sub directories and files.

I tried to achieve this using `ClassPathResource`. This works fine if it is file. I am facing issues when it comes to directory. I am using `getFile` api to get the directory path to walk through that directory for sub directories which is causing issue in jar execution.

Here is my code:

Below code is to read sub directories in `Conf` folder.

```
List<Map<String,String>> list = new ArrayList<Map<String,String>>(); ClassPathResource classPathResource = new ClassPathResource("src/main/resources/Conf");
```

Reading each sub directory.

```
public Map<String, String> readDirectory(String dir) { Map<String, String> map = new HashMap<String, String>(); try {
```

Reading file:

```
public String readFile(File confFile) { StringBuffer terms = new StringBuffer(); try (BufferedReader reader = new BufferedReader(new FileReader(confFile))) {
```

Here, I should not use `classPathResource.getFile()` to get the absolute path because it tries to find file in file system which will not available in case of jar.

So, I need alternate way to get absolute path of resource directory. I have to pass it to `File.walk` api to find sub directories and files.

Accepted Answer:

As mentioned in the question, first I want to get `confX` directories then read `conf.txt` files.

Finally, I could solve my issue as below.

```
ClassLoader cl = this.getClass().getClassLoader(); ResourcePatternResolver resolver = new PathMatchingResourcePatternResolver(cl);
```

This will give all sub directories of `Conf` directory. Here `/` at the end in `classpath:Conf/**` is very important. If we do not give `/` it will work normally but will not work in jar. From the above code block `resources[]` array will contains directory location like this `class path resource [Conf/conf1/]` and so on. I need sub directory name to read corresponding file. Here is the code for it.

```
Arrays.asList(resources).stream().filter(resource -> !resource.isRoot()).forEach(resource -> { Pattern dirPattern = Pattern.compile(resource.getFilename().replace("\\.", "/"));
```

I need to map each txt file with its corresponding directory. That is why I approached this way. If you just need to get files and read you can do it like below. This will list everything under `Conf` directory.

```
ResourcePatternResolver resolver = new PathMatchingResourcePatternResolver(cl); try { Resource resources[] = resolver.getResources("classpath:Conf/**");
```

Highest Rated Answer:

Try the following code. It can scan up the required files up to `n` levels which can be specified using `maxDepth` variable in following code

```
// Finding a file upto x level in File Directory using NIO Files.find Path start = Paths.get('/Users/***/Documents/server_logs');
```

Another way by using `Files.walk` methods as follows:

```
// Finding a file upto x level in File Directory using NIO Files.walk Path startWalk = Paths.get('/Users/***/Documents/server_logs');
```