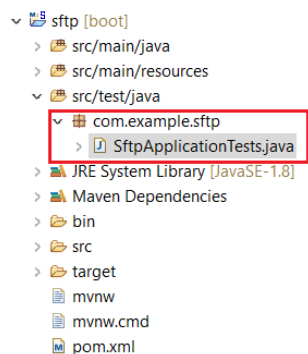


## Spring boot with SFTP

1. What we going to use to connect sftp server is JSch check this out >>  
<https://mvnrepository.com/artifact/com.jcraft/jsch>
2. Add JSch into your pom.xml (please check version in link above)

```
<dependency>
  <groupId>com.jcraft</groupId>
  <artifactId>jsch</artifactId>
  <version>0.1.54</version>
</dependency>
```

3. Now you can use JSch to connect and get, put file as you want.
4. Now let start some coding in this example I'm going to code and run in test case.
5. Prepare your credential.
  - host, user, pass, port is required.
  - encoding type if need\*\*\*
  - channel will be used to select channel.
  - workingDir if need\*\*\*
  - filename you want to get from sftp server.



```

3 import java.io.BufferedReader;
16
17 @RunWith(SpringRunner.class)
18 @SpringBootTest(webEnvironment = WebEnvironment.RANDOM_PORT)
19 public class SftpApplicationTests {
20
21     @Test
22     public void getFileFromSftp() {
23
24         JSch jsch = null;
25         Session session = null;
26         ChannelSftp sftpChannel = null;
27
28         String host = "localhost";
29         String user = "root";
30         String password = "root@1234";
31         int port = 22;
32
33         String encoding = "TIS-620";
34         String channel = "sftp";
35
36         String workingDir = "/PH";
37         String filename = "HARVESTING_MACHINE.txt";
38         InputStream inputStream = null;
39     }

```

6. This is simple code how to get data from sftp server.

```
try {
    jsch = new JSch();
    session = jsch.getSession(user, host, port);
    session.setPassword(password);

    System.out.println("Establishing Connection...");

    session.connect();

    System.out.println("Connection established.");
    System.out.println("Creating SFTP Channel.");

    sftpChannel = (ChannelSftp) session.openChannel(channel);
    sftpChannel.connect();

    System.out.println("SFTP Channel created.");

    sftpChannel.cd(workingDir);
    inputStream = sftpChannel.get(filename);

    BufferedReader br = new BufferedReader(new InputStreamReader(inputStream, encoding));
    String line;
    while ((line = br.readLine()) != null) {
        System.out.println(line);
    }
    br.close();
} catch (Exception e) {
    System.out.println("Exception" + e);
} finally {
    if (sftpChannel.isConnected()) {
        sftpChannel.disconnect();
        System.out.println("sftpChannel.disconnect");
    }
    if (session.isConnected()) {
        session.disconnect();
        System.out.println("session.disconnect");
    }
}
```

but if you run it you might encounter an error like picture below :

check this out >> <https://stackoverflow.com/questions/2003419/com-jcraft-jsch-jschexception-unknownhostkey>

```
2561-03-22 16:51:11.444 INFO 5608 --- [ | main] com.example.sftp.SftpApplicationTests : Started SftpApplicationTests in 2.804 seconds
Establishing Connection...
Exception in thread jcraft.jsch.JSchException: UnknownHostKey: 192.168.1.3. DSA key fingerprint is 16:27:38:52:70:68:28:34:76:90:28:0a:50:04:07:9b
2561-03-22 16:51:12.201 INFO 5608 --- [Thread-2] ationConfigEmbeddedWebApplicationContext : Closing org.springframework.boot.context.embedded
```

to get through this error in testing you need to set configuration as picture below:

```
try {
    jsch = new JSch();
    jsch.setKnownHosts("C:\\.ssh\\knownhosts");
    jsch.setConfig("StrictHostKeyChecking", "no");
    session = jsch.getSession(user, host, port);
    session.setPassword(password);
```

but for production usage you need to use `jsch.setKnownHost` instead.

7. Now you can go through error and get data from file already as picture below:

```
2017-05-22 17:00:20.542 INFO 14320 --- [main] com.example.Step3StepApp
Establishing Connection...
Connection established.
Creating SFTP Channel.
SFTP Channel created.
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
C:\Users\user\Desktop\test.txt [A] - [2017-05-22|2018-12-31|2017-11-03]
```

8. Now in reverse if you want to put file to server this how to do.  
code is the same as get file but what you need to change is add new File and put it to server  
as picture below:

```
try {
    jsch = new JSch();
    jsch.setConfig("StrictHostKeyChecking", "no");
    session = jsch.getSession(user, host, port);
    session.setPassword(password);
    System.out.println("Establishing Connection...");
    session.connect();
    System.out.println("Connection established.");
    System.out.println("Creating SFTP Channel.");

    sftpChannel = (ChannelSftp) session.openChannel(channel);
    sftpChannel.connect();
    System.out.println("SFTP Channel created.");
    File f = new File("C:\\Users\\User\\Desktop\\test.txt");
    sftpChannel.put(new FileInputStream(f), "PH/"+ f.getName());
    System.out.println("File transfered successfully to host.");
}
```

9. Once you run test case it going to upload file from your local pc to server and check the result as below:

```
2501 03 22 17:24:41.501 INFO 13310 L
Establishing Connection...
Connection established.
Creating SFTP Channel.
SFTP Channel created.
File transfered successfully to host.
sftpChannel.disconnect
session.disconnect
2561 03 22 17:24:56.334 INFO 13316 F This
```

