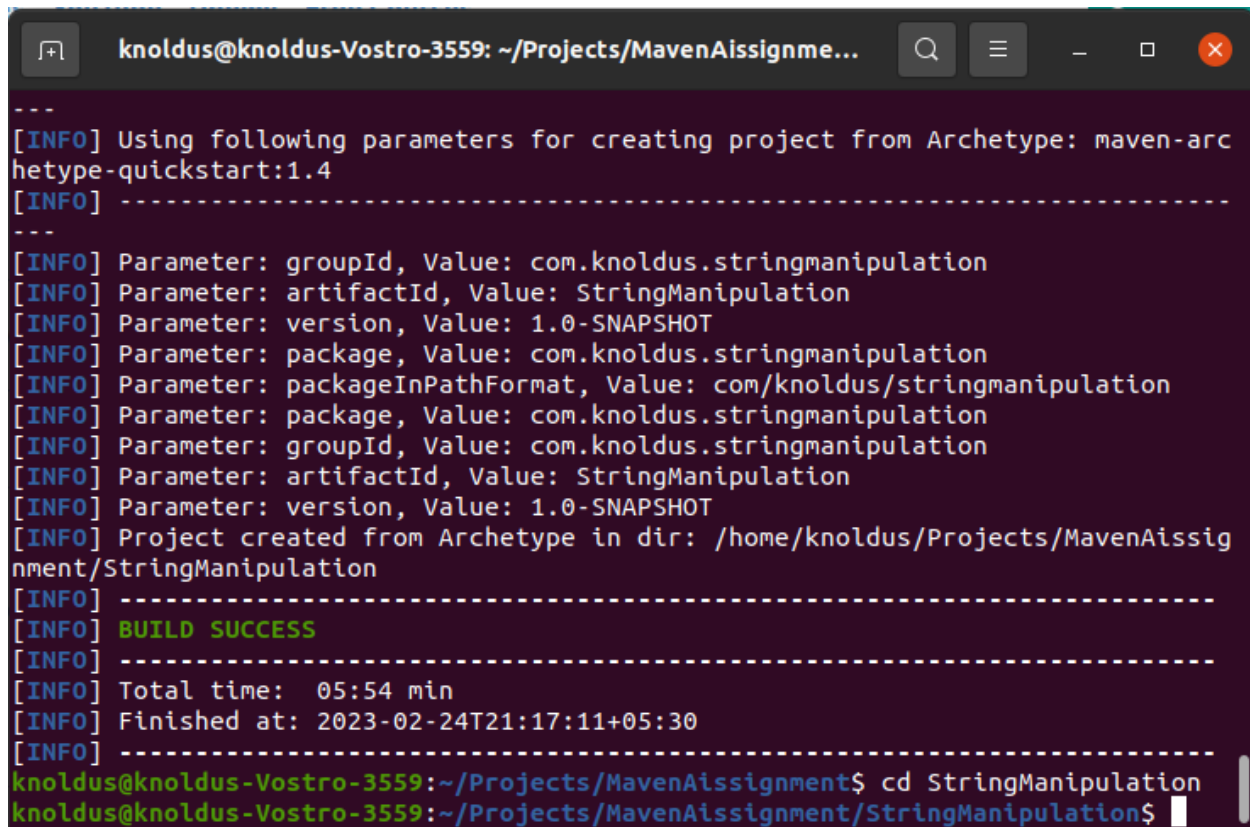


Maven Assignment

Creating maven project with sub-modules:-

Step 1: Generate new maven project

```
mvn archetype:generate
```

A terminal window titled 'knoldus@knoldus-Vostro-3559: ~/Projects/MavenAissigme...' showing the output of the 'mvn archetype:generate' command. The output includes several '[INFO]' messages detailing the parameters used for creating the project from the 'maven-archetype-quickstart:1.4' archetype. The parameters listed are: groupId (com.knoldus.stringmanipulation), artifactId (StringManipulation), version (1.0-SNAPSHOT), package (com.knoldus.stringmanipulation), and packageInPathFormat (com/knoldus/stringmanipulation). The terminal also shows the project creation path, a 'BUILD SUCCESS' message, the total time (05:54 min), and the finish time (2023-02-24T21:17:11+05:30). Finally, it shows the user navigating into the 'StringManipulation' directory.

```
knoldus@knoldus-Vostro-3559: ~/Projects/MavenAissigme...
---
[INFO] Using following parameters for creating project from Archetype: maven-arc
hetype-quickstart:1.4
[INFO] -----
---
[INFO] Parameter: groupId, Value: com.knoldus.stringmanipulation
[INFO] Parameter: artifactId, Value: StringManipulation
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Parameter: package, Value: com.knoldus.stringmanipulation
[INFO] Parameter: packageInPathFormat, Value: com/knoldus/stringmanipulation
[INFO] Parameter: package, Value: com.knoldus.stringmanipulation
[INFO] Parameter: groupId, Value: com.knoldus.stringmanipulation
[INFO] Parameter: artifactId, Value: StringManipulation
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Project created from Archetype in dir: /home/knoldus/Projects/MavenAissig
nment/StringManipulation
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 05:54 min
[INFO] Finished at: 2023-02-24T21:17:11+05:30
[INFO] -----
knoldus@knoldus-Vostro-3559:~/Projects/MavenAissignment$ cd StringManipulation
knoldus@knoldus-Vostro-3559:~/Projects/MavenAissignment/StringManipulation$
```

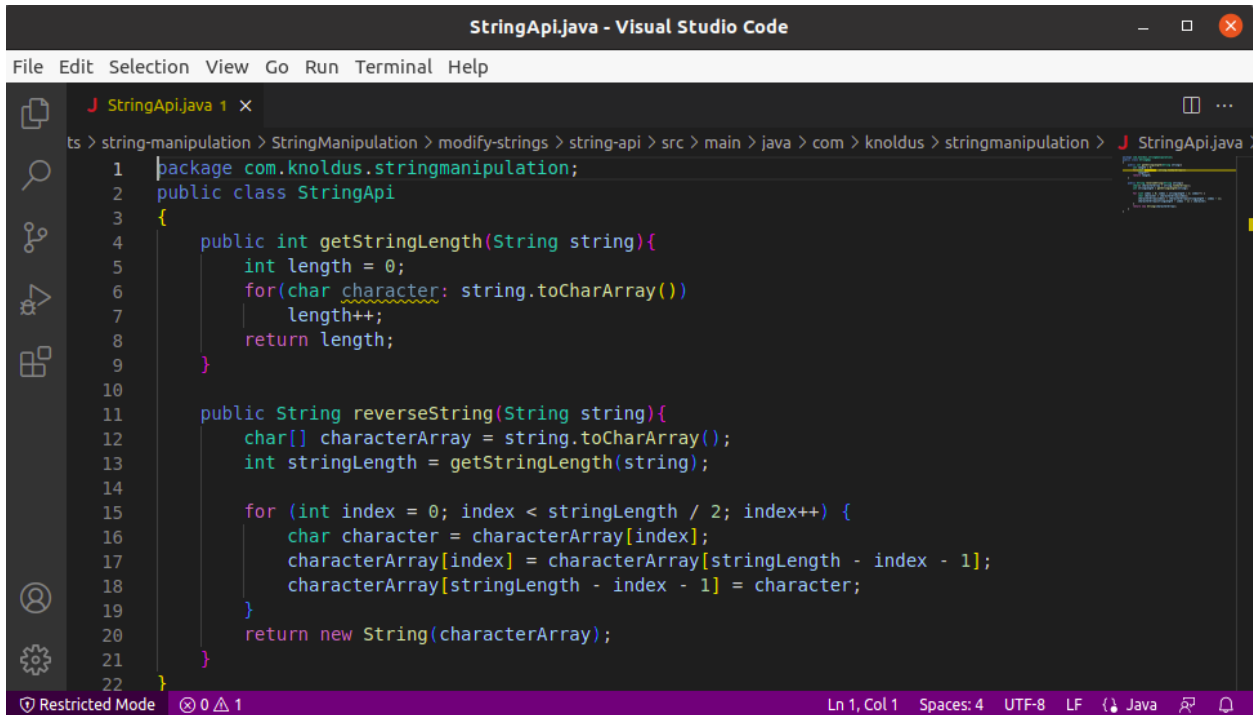
Step 2: Go to project [StringManipulation] directory and create modify-strings module

```
knoldus@knoldus-Vostro-3559: ~/Projects/MavenAassignme...
[INFO] -----
[INFO] Using following parameters for creating project from Archetype: maven-arc
hetype-quickstart:1.4
[INFO] -----
[INFO] Parameter: groupId, Value: com.knoldus.stringmanipulation
[INFO] Parameter: artifactId, Value: modify-strings
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Parameter: package, Value: com.knoldus.stringmanipulation
[INFO] Parameter: packageInPathFormat, Value: com/knoldus/stringmanipulation
[INFO] Parameter: package, Value: com.knoldus.stringmanipulation
[INFO] Parameter: groupId, Value: com.knoldus.stringmanipulation
[INFO] Parameter: artifactId, Value: modify-strings
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Project created from Archetype in dir: /home/knoldus/Projects/MavenAassign
ment/StringManipulation/modify-strings
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 31.554 s
[INFO] Finished at: 2023-02-24T21:21:45+05:30
[INFO] -----
knoldus@knoldus-Vostro-3559:~/Projects/MavenAassignment/StringManipulation$
```

Step 3: Go to modify-strings module and create two module [modify-string as parent module]

```
knoldus@knoldus-Vostro-3559: ~/Projects/MavenAassignme...
[INFO] Using following parameters for creating project from Archetype: maven-arc
hetype-quickstart:1.4
[INFO] -----
[INFO] Parameter: groupId, Value: com.knoldus.stringmanipulation
[INFO] Parameter: artifactId, Value: string-api
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Parameter: package, Value: com.knoldus.stringmanipulation
[INFO] Parameter: packageInPathFormat, Value: com/knoldus/stringmanipulation
[INFO] Parameter: package, Value: com.knoldus.stringmanipulation
[INFO] Parameter: groupId, Value: com.knoldus.stringmanipulation
[INFO] Parameter: artifactId, Value: string-api
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Project created from Archetype in dir: /home/knoldus/Projects/MavenAassign
ment/StringManipulation/modify-strings/string-api
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 25.445 s
[INFO] Finished at: 2023-02-24T21:24:45+05:30
[INFO] -----
knoldus@knoldus-Vostro-3559:~/Projects/MavenAassignment/StringManipulation/modif
y-strings$
```

Step 4: Method [1. reverseString() 2. getStringLength()] created

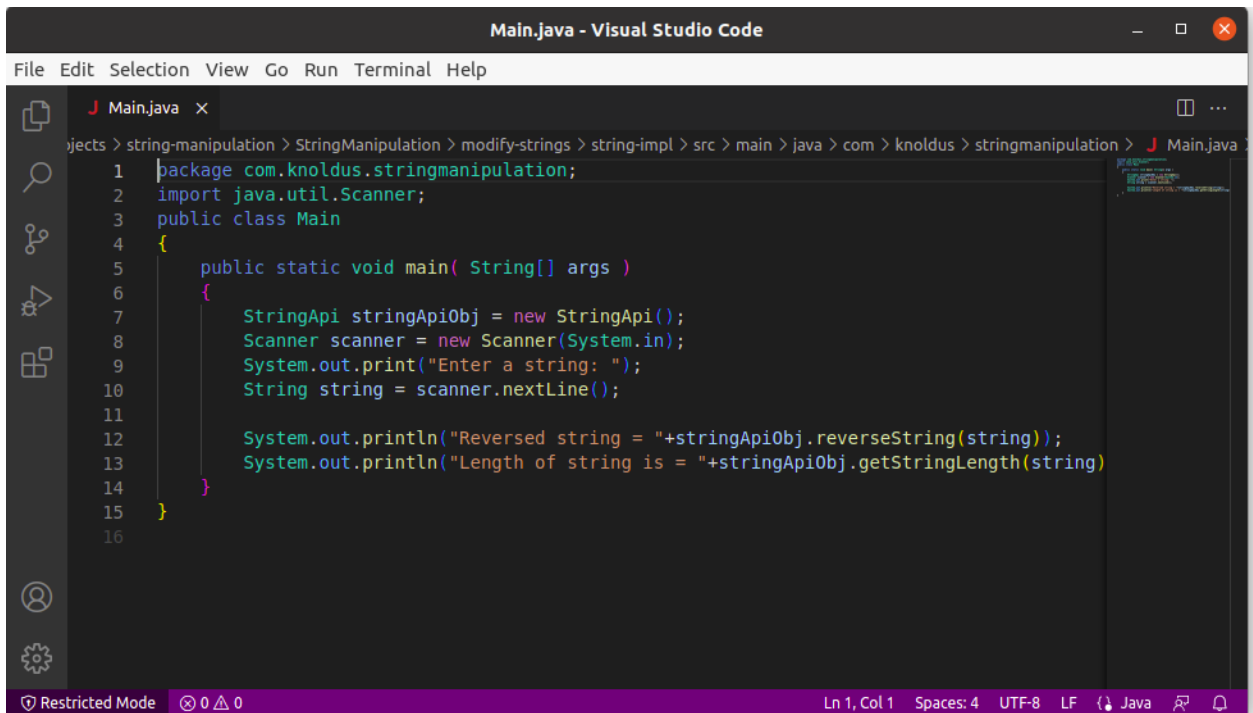


```
StringApi.java - Visual Studio Code
File Edit Selection View Go Run Terminal Help

J StringApi.java 1 x
ts > string-manipulation > StringManipulation > modify-strings > string-api > src > main > java > com > knoldus > stringmanipulation > J StringApi.java
1 package com.knoldus.stringmanipulation;
2 public class StringApi
3 {
4     public int getStringLength(String string){
5         int length = 0;
6         for(char character: string.toCharArray())
7             length++;
8         return length;
9     }
10
11     public String reverseString(String string){
12         char[] characterArray = string.toCharArray();
13         int stringLength = getStringLength(string);
14
15         for (int index = 0; index < stringLength / 2; index++) {
16             char character = characterArray[index];
17             characterArray[index] = characterArray[stringLength - index - 1];
18             characterArray[stringLength - index - 1] = character;
19         }
20         return new String(characterArray);
21     }
22 }
```

Ln 1, Col 1 Spaces: 4 UTF-8 LF Java

Step 5: Inside string-impl main class created and both methods called

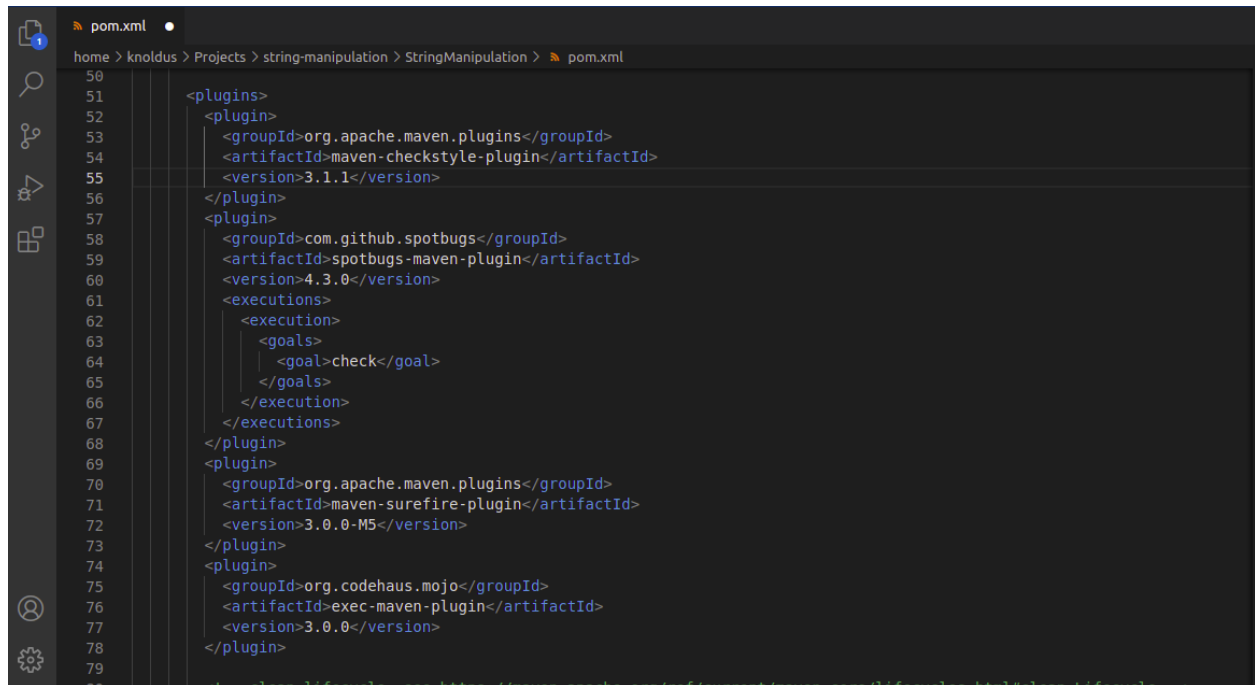


```
Main.java - Visual Studio Code
File Edit Selection View Go Run Terminal Help

J Main.java x
jects > string-manipulation > StringManipulation > modify-strings > string-impl > src > main > java > com > knoldus > stringmanipulation > J Main.java
1 package com.knoldus.stringmanipulation;
2 import java.util.Scanner;
3 public class Main
4 {
5     public static void main( String[] args )
6     {
7         StringApi stringApiObj = new StringApi();
8         Scanner scanner = new Scanner(System.in);
9         System.out.print("Enter a string: ");
10        String string = scanner.nextLine();
11
12        System.out.println("Reversed string = "+stringApiObj.reverseString(string));
13        System.out.println("Length of string is = "+stringApiObj.getStringLength(string));
14    }
15 }
16
```

Ln 1, Col 1 Spaces: 4 UTF-8 LF Java

Step 6 : Mandatory dependencies/plugins added in parent pom.xml



```
50
51
52     <plugins>
53         <plugin>
54             <groupId>org.apache.maven.plugins</groupId>
55             <artifactId>maven-checkstyle-plugin</artifactId>
56             <version>3.1.1</version>
57         </plugin>
58         <plugin>
59             <groupId>com.github.spotbugs</groupId>
60             <artifactId>spotbugs-maven-plugin</artifactId>
61             <version>4.3.0</version>
62             <executions>
63                 <execution>
64                     <goals>
65                         <goal>check</goal>
66                     </goals>
67                 </execution>
68             </executions>
69         </plugin>
70         <plugin>
71             <groupId>org.apache.maven.plugins</groupId>
72             <artifactId>maven-surefire-plugin</artifactId>
73             <version>3.0.0-M5</version>
74         </plugin>
75         <plugin>
76             <groupId>org.codehaus.mojo</groupId>
77             <artifactId>exec-maven-plugin</artifactId>
78             <version>3.0.0</version>
79         </plugin>
80     </plugins>
```