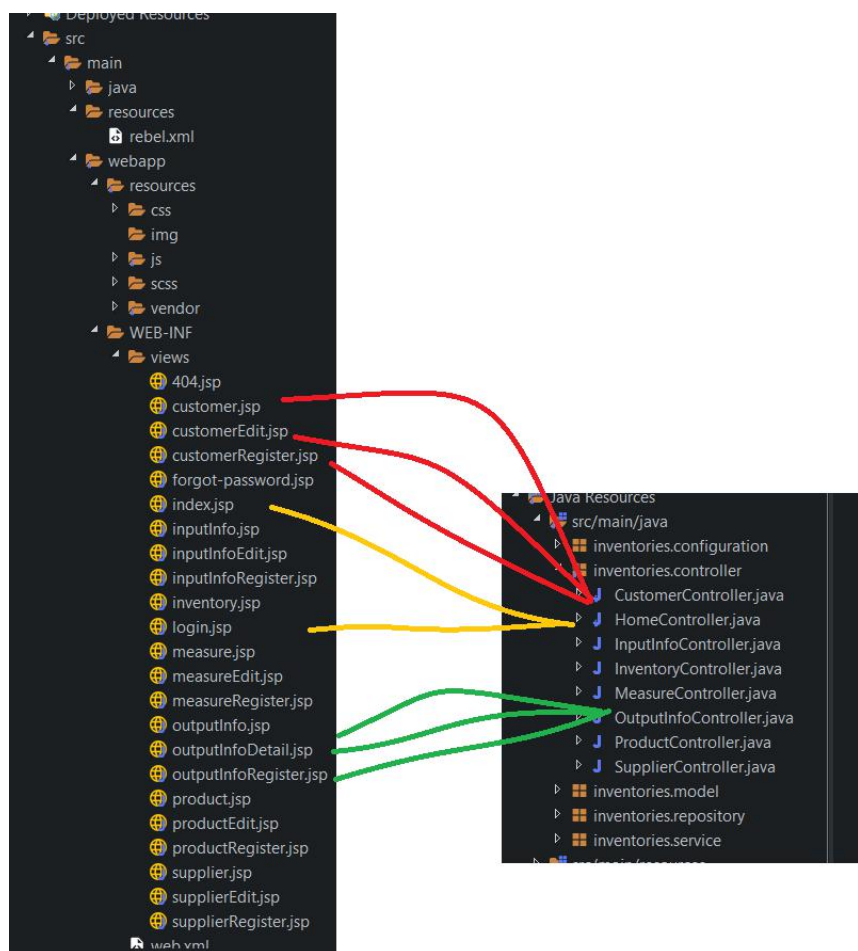


## GIẢI THÍCH VỀ FINAL PROJECT

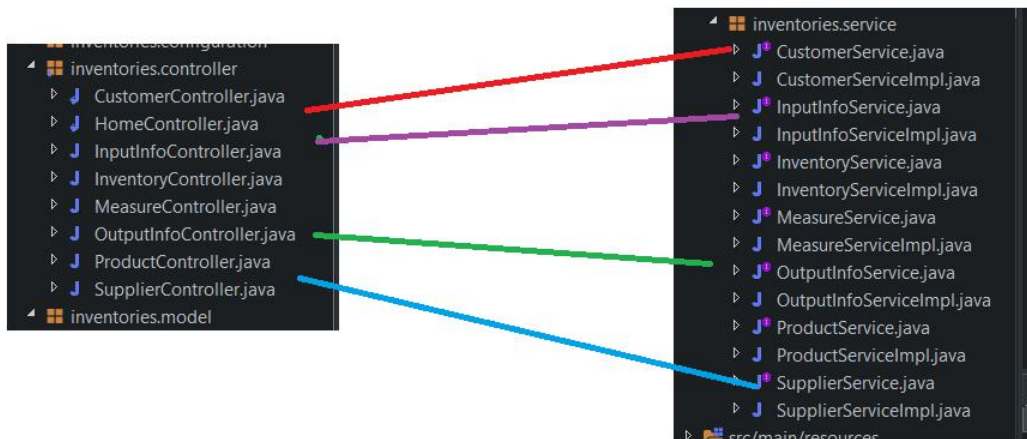
Source code nằm ở trong thư mục [source\_code], trong đó gồm có database, thư mục src và file pom cùng với file war.

## GIẢI THÍCH VỀ MÔ HÌNH LẬP TRÌNH

1. Mỗi model chính là Entity trừ model Input
2. Một view có tên giống nhau sẽ hoạt động cùng 1 controller

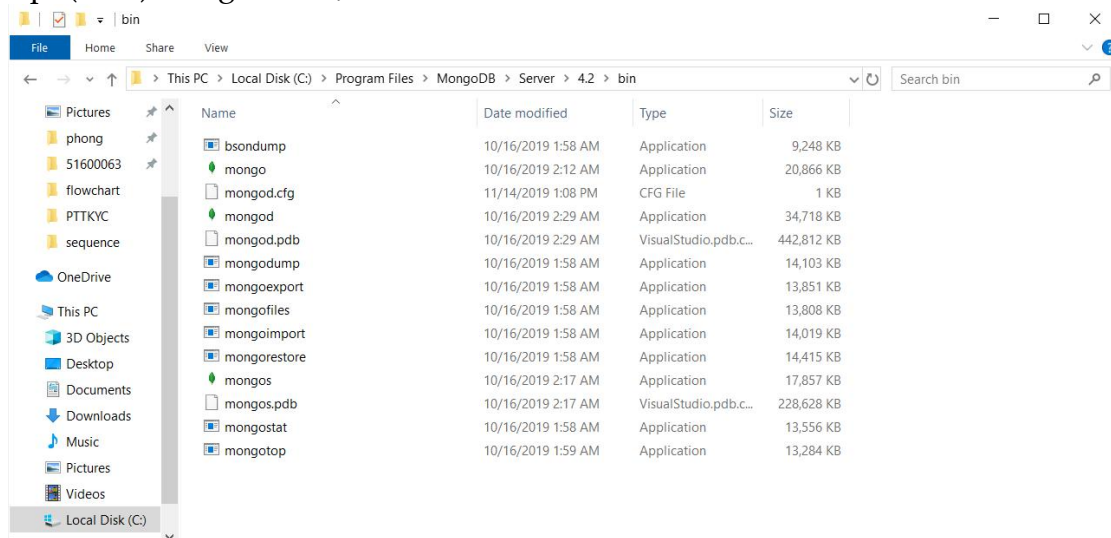


### 3. Mỗi controller ứng với mỗi service



## CÁC BƯỚC DELOY CODE

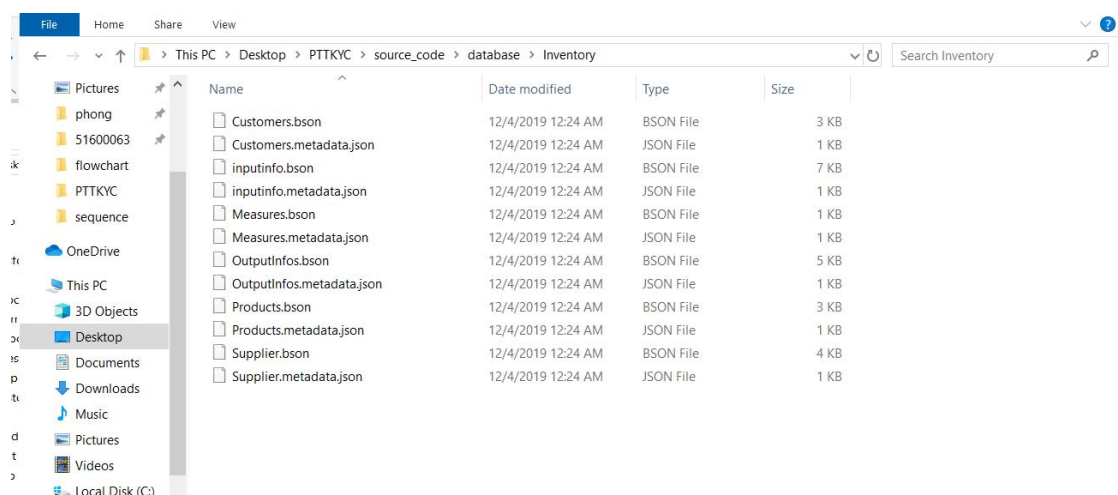
1. Cài đặt mongodb, eclipse, tomcat hoặc server khác, maven.
2. Thêm dữ liệu:
  - 2.1. Mở thư mục bin trong thư mục chứa mongodb, sau đó mở Command Prompt (cmd) trong thư mục đó.



### 2.2 gõ:

`mongorestore -d Inventory path`

Trong đó, Inventory là tên database, path = đường dẫn chứa data.



Sau khi gõ chính xác và nhận được database như trong hình

```
Administrator: Command Prompt
2019-12-04T00:28:35.344+0700 try 'mongorestore --help' for more information

C:\Program Files\MongoDB\Server\4.2\bin>mongorestore -d Inventory C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory
2019-12-04T00:28:58.483+0700 the --db and --collection args should only be used when restoring from a BSON file. Other uses are deprecated and will not exist in the future; use --nsInclude instead
2019-12-04T00:28:58.483+0700 building a list of collections to restore from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory directory
2019-12-04T00:28:58.498+0700 reading metadata for Inventory.Customers from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Customers.metadata.json
2019-12-04T00:28:58.500+0700 reading metadata for Inventory.Supplier from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Supplier.metadata.json
2019-12-04T00:28:58.500+0700 reading metadata for Inventory.OutputInfos from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\OutputInfos.metadata.json
2019-12-04T00:28:58.501+0700 reading metadata for Inventory.inputinfo from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\inputinfo.metadata.json
2019-12-04T00:28:58.529+0700 restoring Inventory.Supplier from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Supplier.bson
2019-12-04T00:28:58.539+0700 no indexes to restore
2019-12-04T00:28:58.539+0700 finished restoring Inventory.Supplier (16 documents, 0 failures)
2019-12-04T00:28:58.543+0700 reading metadata for Inventory.Products from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Products.metadata.json
2019-12-04T00:28:58.555+0700 restoring Inventory.Products from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Products.bson
2019-12-04T00:28:58.558+0700 no indexes to restore
2019-12-04T00:28:58.558+0700 finished restoring Inventory.Products (18 documents, 0 failures)
2019-12-04T00:28:58.562+0700 reading metadata for Inventory.Measures from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Measures.metadata.json
2019-12-04T00:28:58.576+0700 restoring Inventory.Measures from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Measures.bson
2019-12-04T00:28:58.582+0700 no indexes to restore
2019-12-04T00:28:58.582+0700 finished restoring Inventory.Measures (4 documents, 0 failures)
2019-12-04T00:28:58.583+0700 restoring Inventory.Customers from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\Customers.bson
2019-12-04T00:28:58.586+0700 no indexes to restore
2019-12-04T00:28:58.586+0700 finished restoring Inventory.Customers (14 documents, 0 failures)
2019-12-04T00:28:58.829+0700 restoring Inventory.OutputInfos from C:\Users\phong\Desktop\PTTKYC\source_code\database\Inventory\OutputInfos.bson
```

### 3. DEPLOY

## TỚI ĐÂY CÓ 2 CÁCH ĐỂ CHẠY SẢN PHẨM

### CÁCH 1.

#### 3.1 Khởi động tomcat server thông qua lệnh startup

```
Microsoft Windows [Version 10.0.18362.476]
(c) 2019 Microsoft Corporation. All rights reserved.

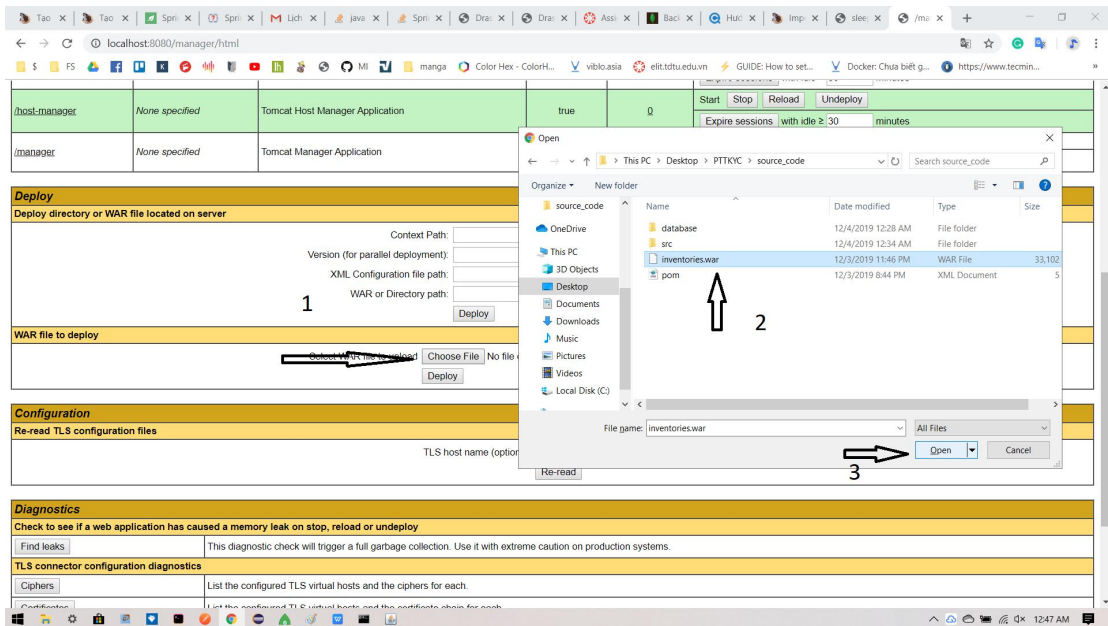
C:\Users\phong\Documents\apache-tomcat-9.0.27>tomcat start
'tomcat' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\phong\Documents\apache-tomcat-9.0.27>bin>./startup
'./' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\phong\Documents\apache-tomcat-9.0.27>bin>startup
Using CATALINA_BASE: "C:\ProgramData\Tomcat9"
Using CATALINA_HOME: "C:\ProgramData\chocolatey\lib\Tomcat9\bin"
Using CATALINA_TMPDIR: "C:\ProgramData\Tomcat9\temp"
Using JRE_HOME: "C:\Program Files\Java\jdk1.8.0_231"
Using CLASSPATH: "C:\ProgramData\chocolatey\lib\Tomcat9\bin\tomcat9\lib\bootstrap.jar;C:\ProgramData\chocolatey\lib\Tomcat9\bin\tomcat9\lib\tomcat-juli.jar"
C:\Users\phong\Documents\apache-tomcat-9.0.27>bin>

04-Dec-2019 00:44:25.161 INFO [main] org.apache.catalina.core.StandardEngine.startInternal Starting Servlet engine: [Apache Tomcat/9.0.27]
04-Dec-2019 00:44:25.175 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory C:\ProgramData\Tomcat9\webapps\docs
04-Dec-2019 00:44:25.432 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application to directory C:\ProgramData\Tomcat9\webapps\docs has finished in [257] ms
04-Dec-2019 00:44:25.432 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory C:\ProgramData\Tomcat9\webapps\examples
04-Dec-2019 00:44:26.287 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application to directory C:\ProgramData\Tomcat9\webapps\examples has finished in [855] ms
04-Dec-2019 00:44:26.288 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory C:\ProgramData\Tomcat9\webapps\host-manager
04-Dec-2019 00:44:26.325 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application to directory C:\ProgramData\Tomcat9\webapps\host-manager has finished in [38] ms
04-Dec-2019 00:44:26.326 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory C:\ProgramData\Tomcat9\webapps\manager
04-Dec-2019 00:44:26.382 WARNING [main] org.apache.catalina.session.StandardManager.doLoad Unable to delete C:\ProgramData\Tomcat9\work\Catalina\localhost\manager\SESSIONS.ser after reading the persisted sessions. The continued presence of this file may cause future attempts to persist sessions to fail.
04-Dec-2019 00:44:26.384 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application to directory C:\ProgramData\Tomcat9\webapps\manager has finished in [58] ms
04-Dec-2019 00:44:26.385 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory C:\ProgramData\Tomcat9\webapps\ROOT
04-Dec-2019 00:44:26.410 INFO [main] org.apache.catalina.startup.HostConfig.deployDirectory Deployment of web application to directory C:\ProgramData\Tomcat9\webapps\ROOT has finished in [25] ms
04-Dec-2019 00:44:26.415 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-8080"]
04-Dec-2019 00:44:26.423 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["ajp-nio-8009"]
04-Dec-2019 00:44:26.427 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in [1,301] milliseconds
```

### 3.2 chọn manager app và thêm file war “inventory.war” vào



### 3.3 Sau khi deploy thành công và kích vào đây để truy cập

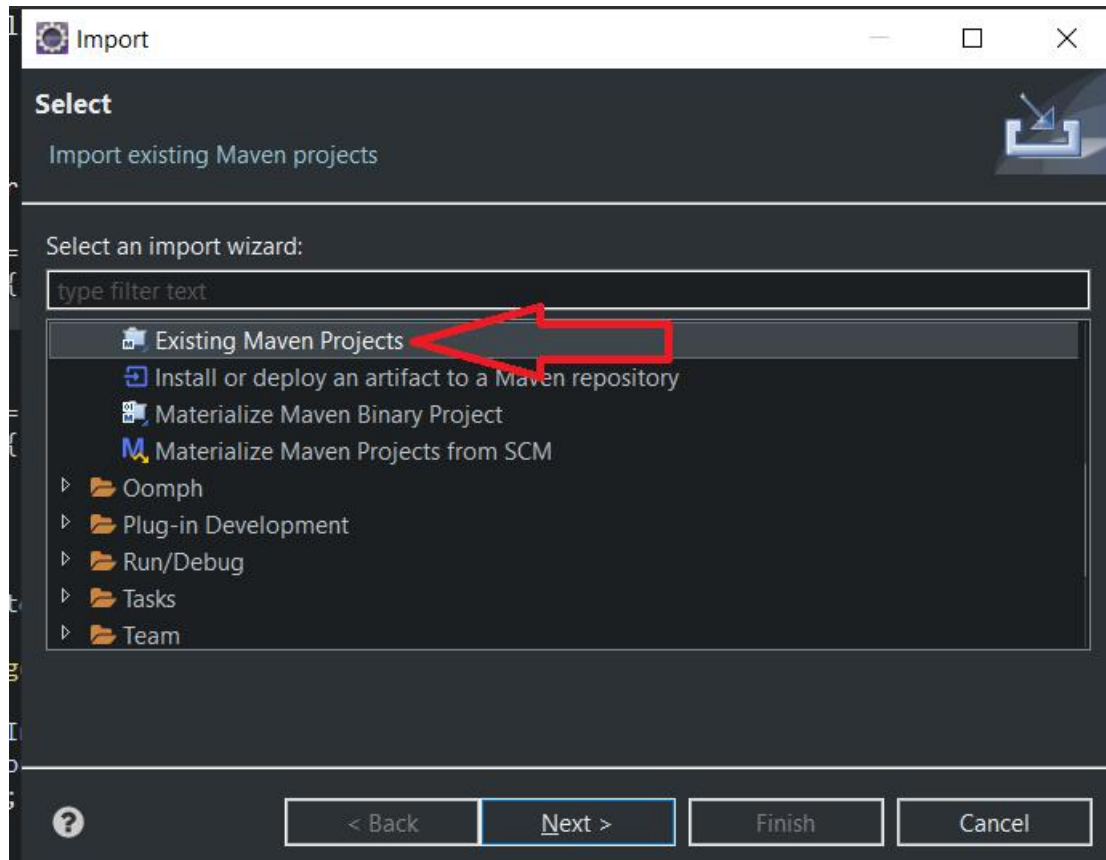
<a href="#">/</a>	<i>None specified</i>	Welcome to Tomcat
<a href="#">/docs</a>	<i>None specified</i>	Tomcat Documentation
<a href="#">/examples</a>	<i>None specified</i>	Servlet and JSP Examples
<a href="#">/host-manager</a>	<i>None specified</i>	Tomcat Host Manager Application
<a href="#">/inventories</a>	<i>None specified</i>	Archetype Created Web Application
<a href="#">/manager</a>	<i>None specified</i>	Tomcat Manager Application

Deploy		
Deploy directory or WAR file located on server		

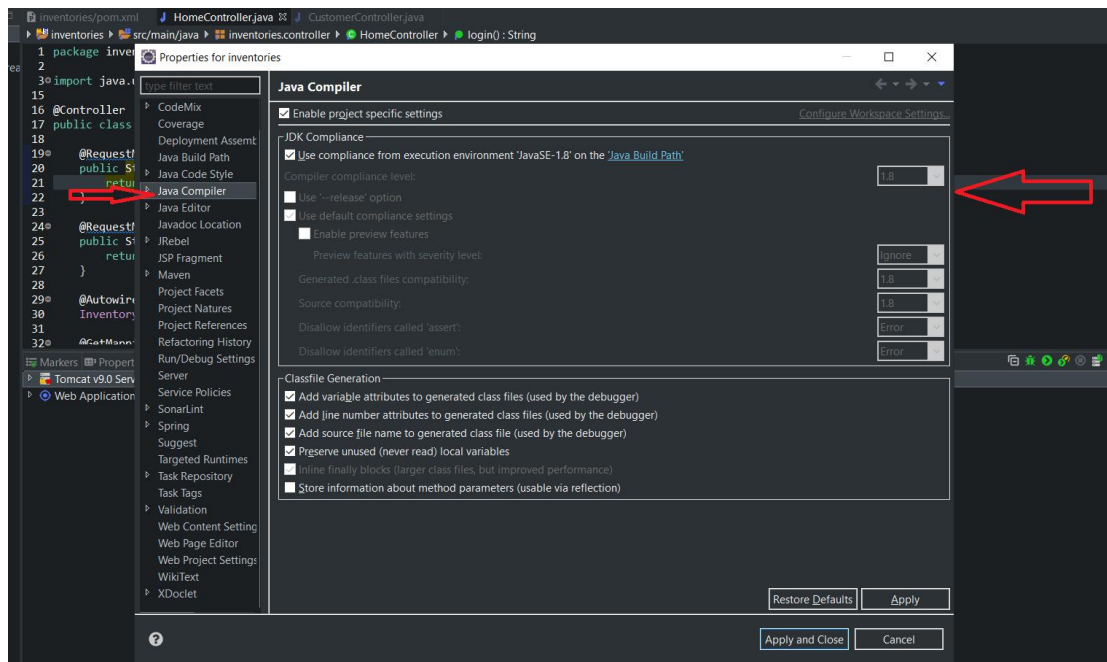


## CÁCH 2.

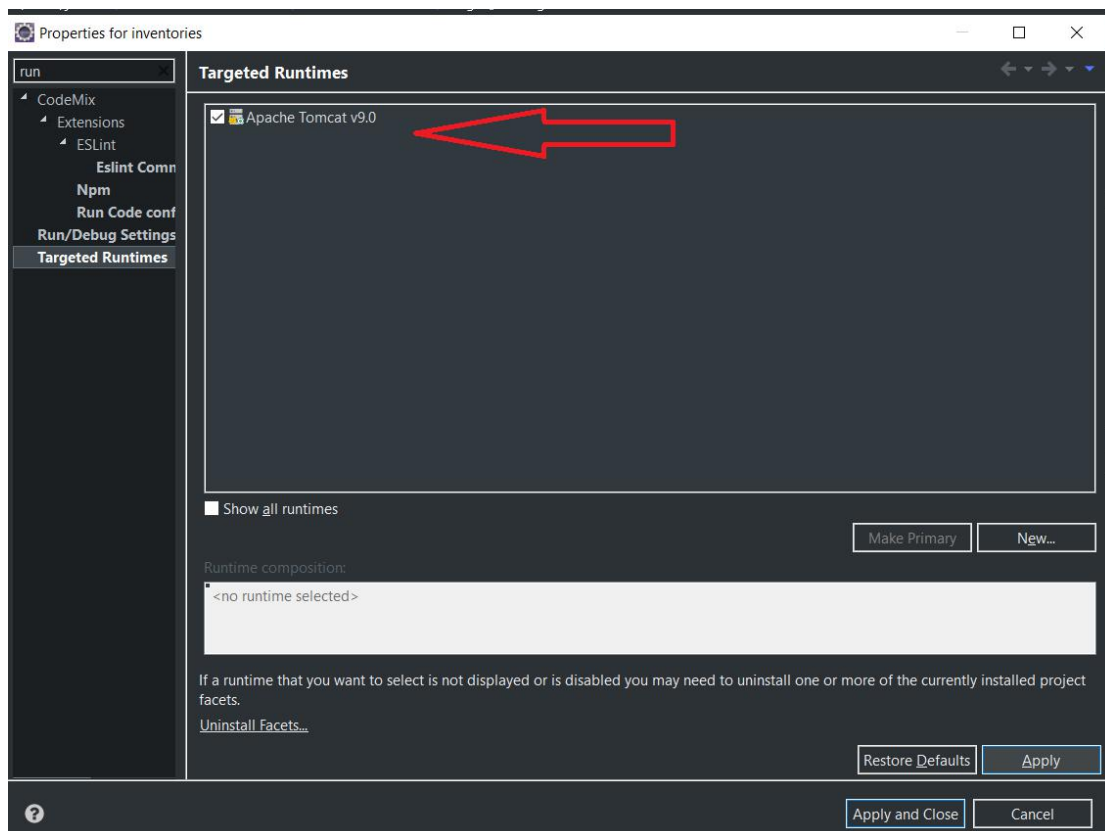
3.1. Import maven exist project trong IDE elipse, sau đó chọn vào đường thư chứa src và file pom.



### 3.2 Chỉnh java Compiler thành 1.8



### 3.2 Chỉnh Runtime Server thành tomcat



Sau đó click button run as localhost tomcat để chạy sản phẩm