



TP1 : JEE

Par : IBTISSAM MASSA - GINFO2

Installation d'un serveur d'applications et d'un environnement de développement

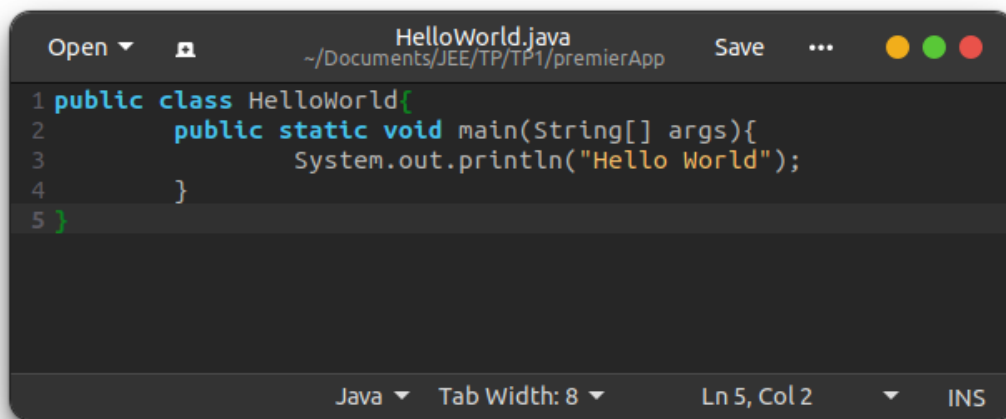
L'objectif de ce TP est la mise en place de l'environnement de développement Eclipse IDE. En plus nous allons installer et configurer un serveur d'application Tomcat.

A. Installation de Java SE (JDK) :

Repérer la version de java installée :

```
ibttissam@ibttissam-HP-EliteBook-820-G1: ~  
ibttissam@ibttissam-HP-EliteBook-820-G1:~$ java -version  
openjdk version "19.0.2" 2023-01-17  
OpenJDK Runtime Environment (build 19.0.2+7-Ubuntu-0ubuntu322.04)  
OpenJDK 64-Bit Server VM (build 19.0.2+7-Ubuntu-0ubuntu322.04, mixed mode, sharing)  
ibttissam@ibttissam-HP-EliteBook-820-G1:~$
```

Taper le code suivant et enregistrer le sous le HelloWorld.java dans un éditeur de texte :

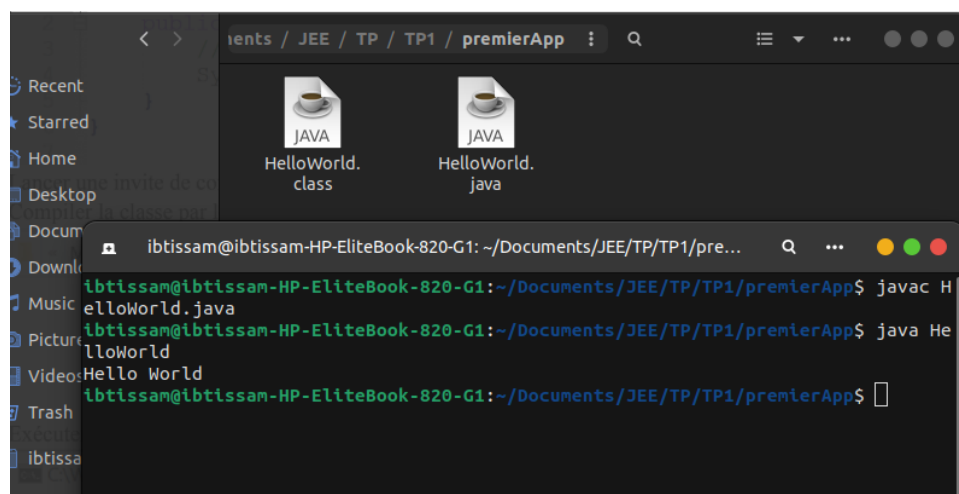


```
Open ▾ [icon] HelloWorld.java
~/Documents/JEE/TP/TP1/premierApp Save ... [window controls]

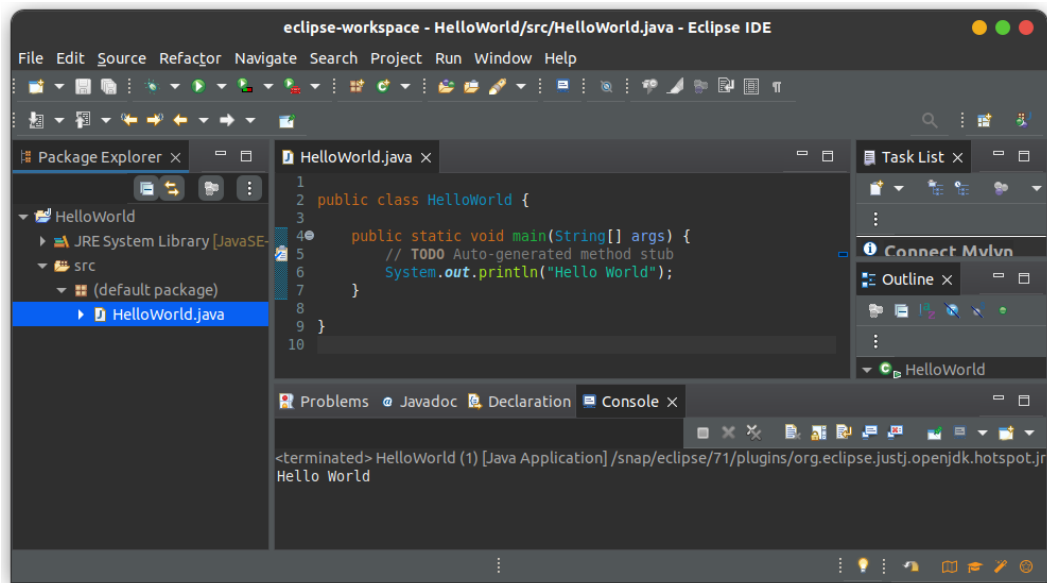
1 public class HelloWorld{
2     public static void main(String[] args){
3         System.out.println("Hello World");
4     }
5 }

Java ▾ Tab Width: 8 ▾ Ln 5, Col 2 ▾ INS
```

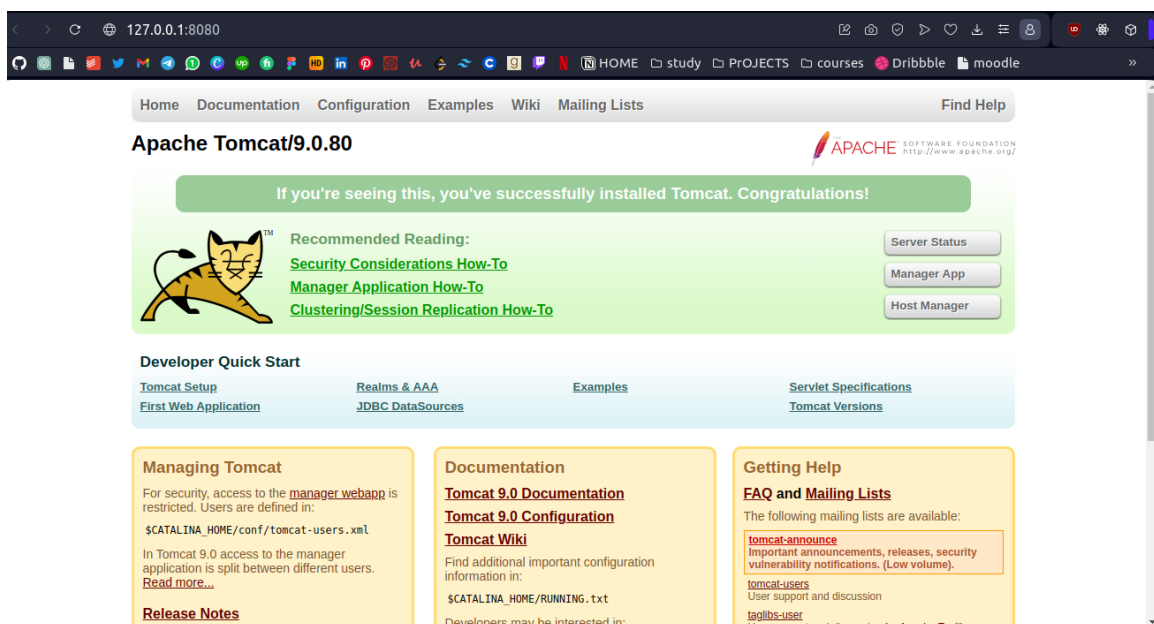
Compiler la classe par la commande `javac HelloWorld.java` et l'exécuter en tapant commande `java HelloWorld` :



B. Installation d'Eclipse IDE :



C. Installation d'Apache-Tomcat:



D. Déploiement d'une application avec une archive WAR)

Ajouter la ligne ci-dessous puis enregistrer le fichier `tomcat-users.xml`

```
<user username="ibtissam" password="1234" roles="manager-script,admin,manager-gui"/> :
```



```
ibttissam@ibttissam-HP-EliteBook-820-G1: ~
GNU nano 6.2 /opt/tomcat/conf/tomcat-users.xml *
<user username="admin" password="<must-be-changed>" roles="manager-gui"/>
<user username="robot" password="<must-be-changed>" roles="manager-script"/>
-->
<!--
The sample user and role entries below are intended for use with the
examples web application. They are wrapped in a comment and thus are ignored
when reading this file. If you wish to configure these users for use with the
examples web application, do not forget to remove the <!-- ..> that surrounds
them. You will also need to set the passwords to something appropriate.
-->
<!--
<role rolename="tomcat"/>
<role rolename="role1"/>
<user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
<user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
<user username="role1" password="<must-be-changed>" roles="role1"/>
-->
<user username="ibttissam" password="1234" roles="manager-
script,admin,manager-gui"/>
</tomcat-users>

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute  ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify  ^_ Go To Line
```

```
ibttissam@ibttissam-HP-EliteBook-820-G1: ~
.xml
[sudo] password for ibttissam:
ibttissam@ibttissam-HP-EliteBook-820-G1:~$ sudo systemctl status tomcat.service
● tomcat.service
   Loaded: loaded (/etc/systemd/system/tomcat.service; enabled; vendor preset
   Active: active (running) since Wed 2023-10-04 23:03:28 +01; 2 days ago
 Main PID: 1196 (java)
   Tasks: 37 (limit: 9306)
  Memory: 135.5M
     CPU: 50.551s
   CGroup: /system.slice/tomcat.service
           └─1196 /usr/lib/jvm/java-11-openjdk-amd64/bin/java -Djava.util.lo

Oct 06 19:58:43 ibttissam-HP-EliteBook-820-G1 systemd[1]: /etc/systemd/system/to>
Oct 06 19:58:43 ibttissam-HP-EliteBook-820-G1 systemd[1]: /etc/systemd/system/to>
Oct 06 19:58:43 ibttissam-HP-EliteBook-820-G1 systemd[1]: /etc/systemd/system/to>
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Oct 06 19:58:43 ibttissam-HP-EliteBook-820-G1 systemd[1]: /etc/systemd/system/to>
Oct 07 13:11:47 ibttissam-HP-EliteBook-820-G1 systemd[1]: /etc/systemd/system/to>
Oct 07 13:11:47 ibttissam-HP-EliteBook-820-G1 systemd[1]: /etc/systemd/system/to>
lines 1-20/20 (END)
```

127.0.0.1:8080/manager/html

Tomcat Web Application Manager

Message: OK

Manager

[List Applications](#)
[HTML Manager Help](#)
[Manager Help](#)
[Server Status](#)

Applications

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/examples	None specified	Servlet and JSP Examples	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/host-manager	None specified	Tomcat Host Manager Application	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/manager	None specified	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Deploy

Deploy directory or WAR file located on server

Context Path:

Version (for parallel deployment):

XML Configuration file path:

WAR or Directory path:

[Deploy](#)

WAR file to deploy

Select WAR file to upload [Choose File](#) No file chosen

[Deploy](#)

Tester le bon fonctionnement de l'application depuis un autre navigateur :

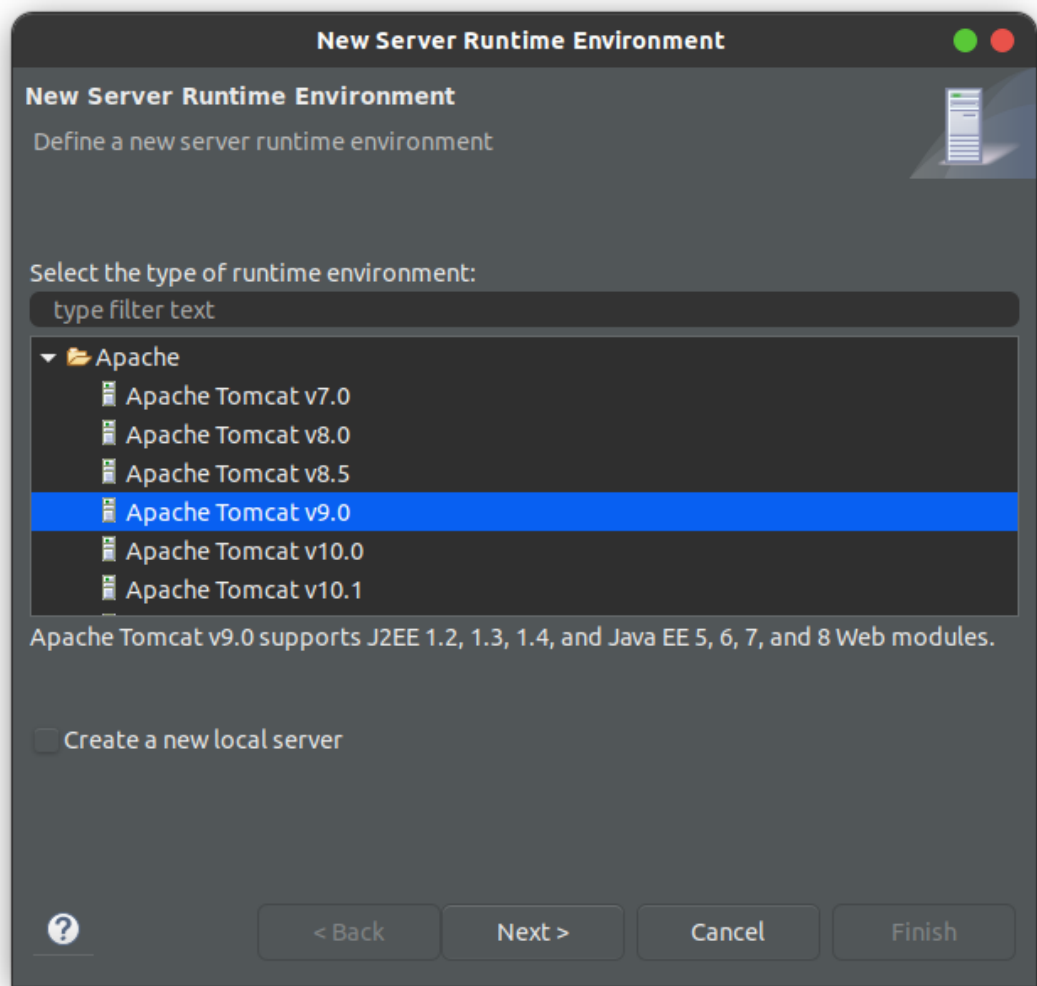
127.0.0.1:8080/FirstApp1.0/

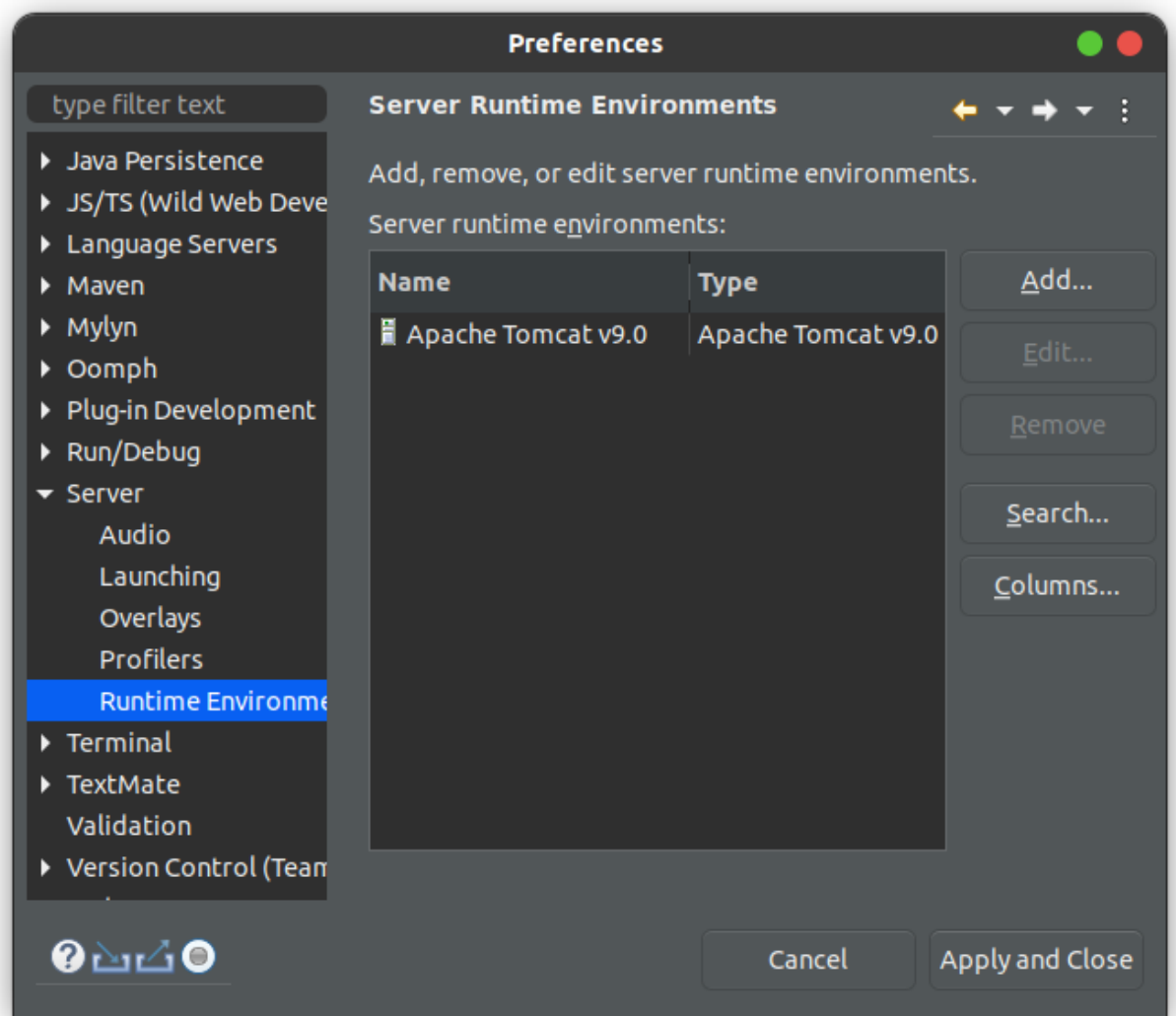
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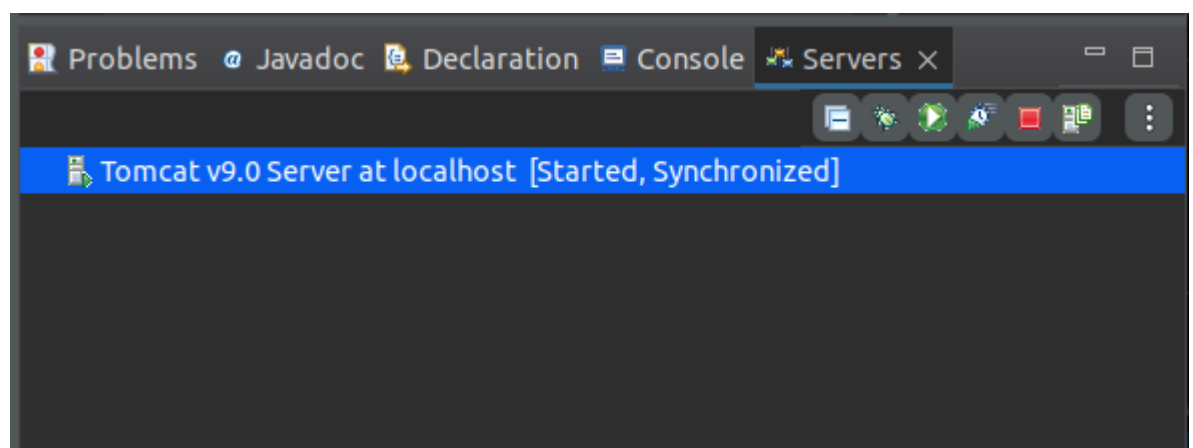
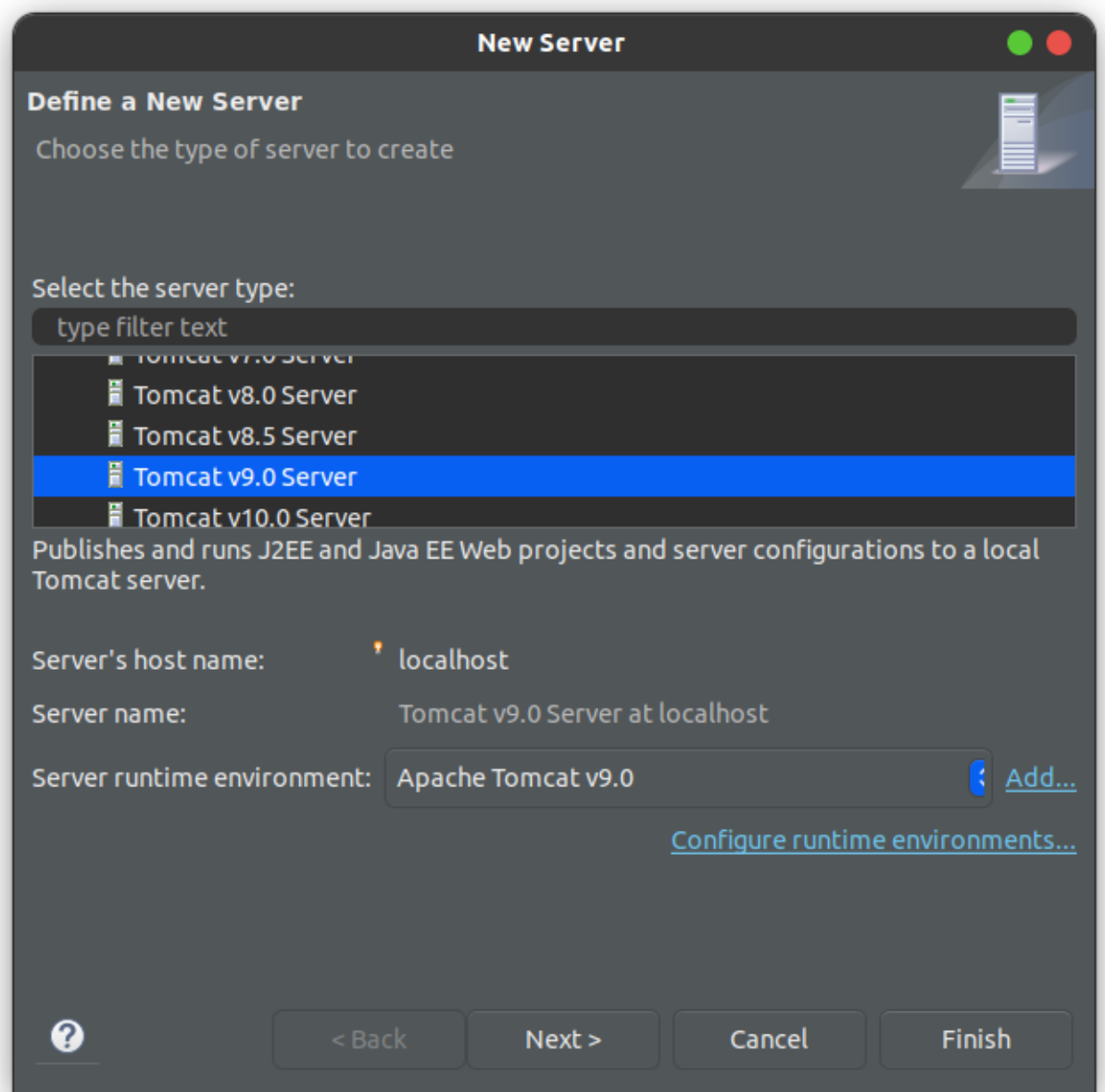
arrêter le serveur :

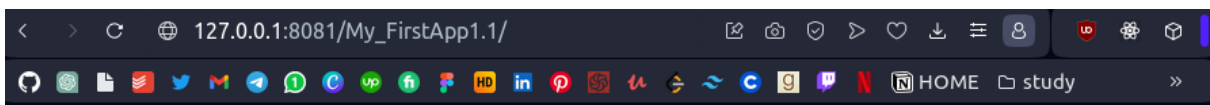
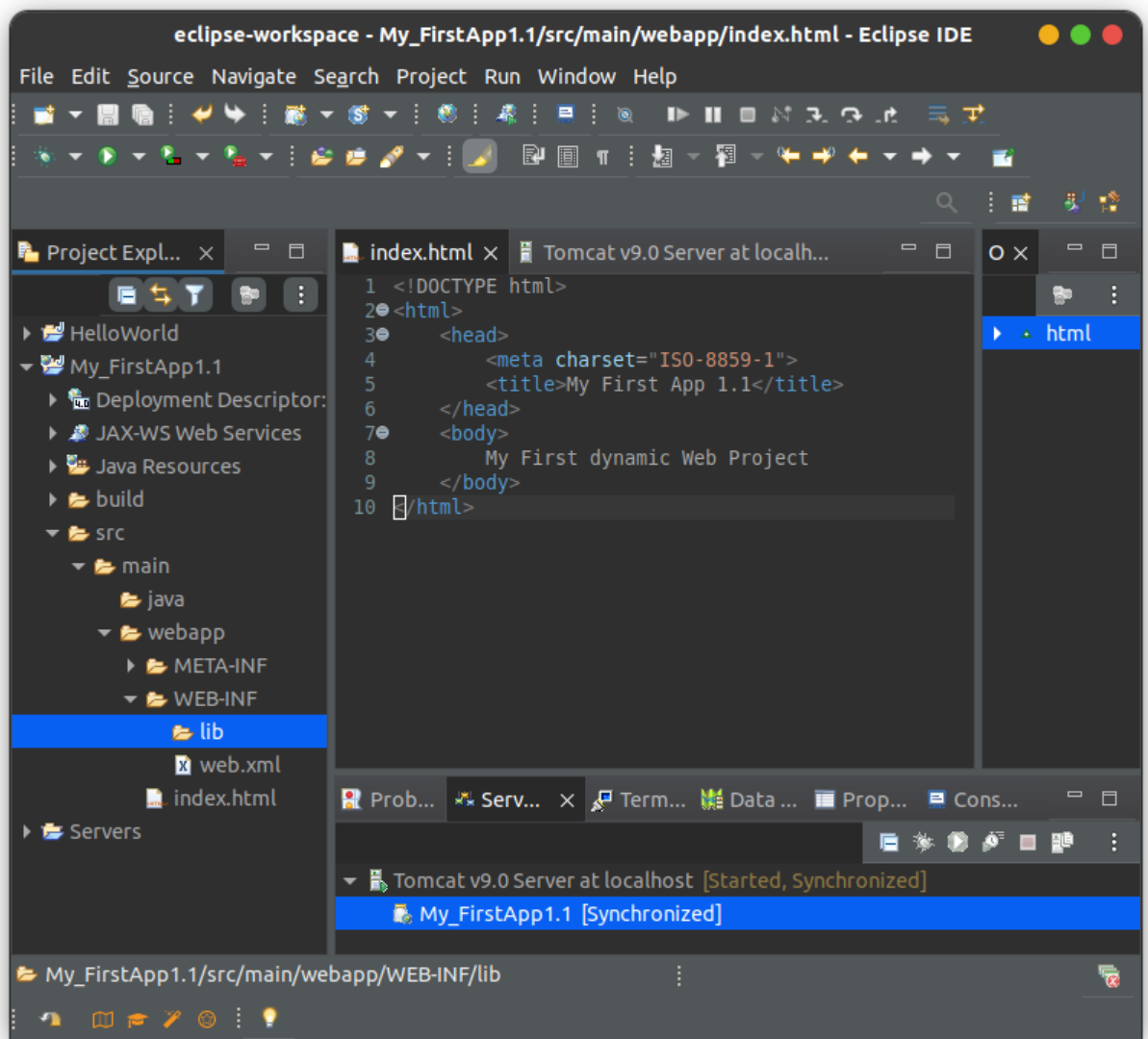
```
ibttissam@ibttissam-HP-EliteBook-820-G1: ~  
ibttissam@ibttissam-HP-EliteBook-820-G1:~$ sudo sh /opt/tomcat/bin/shutdown.sh  
Using CATALINA_BASE:   /opt/tomcat  
Using CATALINA_HOME:   /opt/tomcat  
Using CATALINA_TMPDIR: /opt/tomcat/temp  
Using JRE_HOME:        /usr  
Using CLASSPATH:       /opt/tomcat/bin/bootstrap.jar:/opt/tomcat/bin/tomcat-juli.jar  
Using CATALINA_OPTS:  
NOTE: Picked up JDK_JAVA_OPTIONS:  --add-opens=java.base/java.lang=ALL-UNNAMED -  
--add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.util.concurrent=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED  
ibttissam@ibttissam-HP-EliteBook-820-G1:~$ sudo systemctl status tomcat.service  
● tomcat.service  
   Loaded: loaded (/etc/systemd/system/tomcat.service; enabled; vendor preset: enabled)  
   Active: activating (auto-restart) (Result: exit-code) since Sat 2023-10-07 13:32:04 CEST; 1min 2.816s ago  
     Process: 43017 ExecStop=/opt/tomcat/bin/shutdown.sh (code=exited, status=1/FAILURE)  
    Main PID: 1196 (code=exited, status=0/SUCCESS)  
      CPU: 1min 2.816s  
  
Oct 07 13:32:04 ibttissam-HP-EliteBook-820-G1 systemd[1]: tomcat.service: Control Group Reached Maximum Number of Units. Reloading...  
Oct 07 13:32:04 ibttissam-HP-EliteBook-820-G1 systemd[1]: tomcat.service: Failed with result 'exited'.  
Oct 07 13:32:04 ibttissam-HP-EliteBook-820-G1 systemd[1]: tomcat.service: Consumed 1min 2.816s CPU time.  
lines 1-10/10 (END)
```

E. Ajout du serveur d'application Tomcat à Eclipse IDE









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