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Fecha: 20/01/2026

Actividad 3.3 "Hola Mundo en Tomcat" (AWS Academy Learner Lab)

1. Datos de la instancia EC2

- AMI utilizada: Ubuntu Server 22.04 LTS
- Tipo de instancia: t3.micro
- IP pública: 44.200.23.39
- Clave (.pem): Las claves utilizadas en todas mis instancias "claveAWS.pem"
- Puertos abiertos: 22(SSH), 8080(TCP)

The screenshot shows the AWS CloudWatch Metrics interface. A single metric data point is displayed:

Metric Name	Value	Timestamp
Se inició correctamente la terminación (eliminación) de i-08242243b2b0dc364	1	Tue Jan 20 2026 14:53:46 GMT+0100 (hora estándar de Europa central)

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2. Conexión por SSH

Comando utilizado:

```
ssh -I "D:\Usuarios\daw214\Documents\GitHub\DAW2\DAW\Recursos\claveAWS.pem"  
ubuntu@98.84.159.120
```

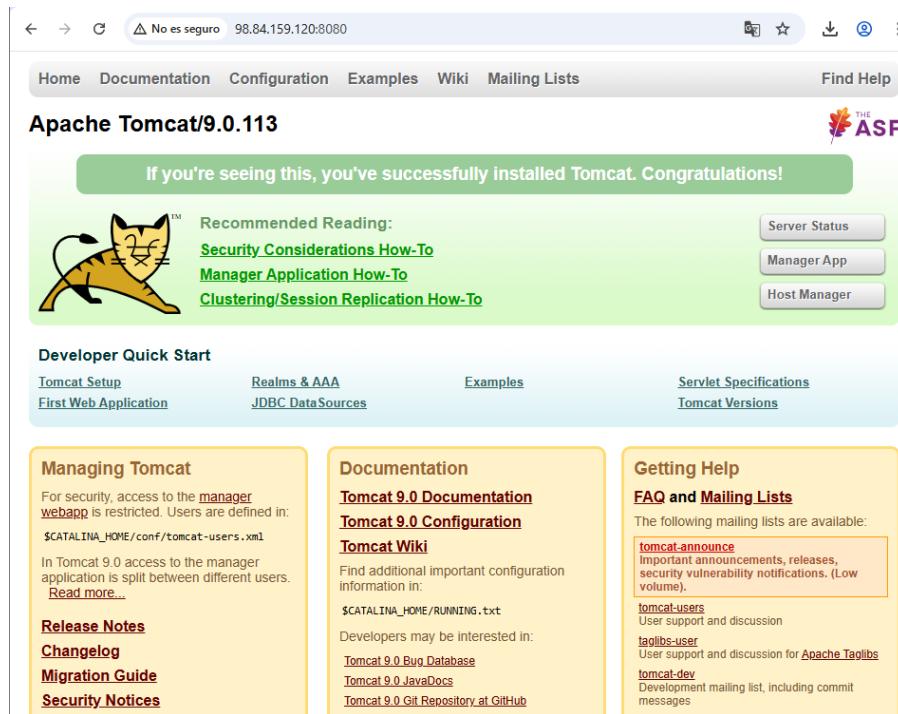
Nos conectamos mediante ssh y con la ruta de nuestra clave pem

```
PS C:\WINDOWS\system32> ssh -i "D:\Usuarios\daw214\Documents\GitHub\DAW2\DAW\Recursos\claveAWS.pem" ubuntu@44.200.23.39  
The authenticity of host '44.200.23.39 (44.200.23.39)' can't be established.  
ED25519 key fingerprint is SHA256:LnYEYVyo3vEypxwSsJ7hv46kmp1ZKpdjVRo6IEMbo.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '44.200.23.39' (ED25519) to the list of known hosts.  
Welcome to Ubuntu 24.04.3 LTS (GNU/Linux 6.14.0-1015-aws x86_64)  
  
* Documentation: https://help.ubuntu.com  
* Management: https://landscape.canonical.com  
* Support: https://ubuntu.com/pro  
  
System information as of Tue Jan 20 13:55:29 UTC 2026  
  
System load: 0.15 Temperature: -273.1 C  
Usage of /: 25.8% of 6.71GB Processes: 114  
Memory usage: 25% Users logged in: 0
```

3. Entramos en el navegador a tomcat

Comando: http://44.200.23.39:8080

Entramos a la ip de nuestra instancia a partir del Puerto 8080. La instalacion de tomcat ya la explico en la [Practica 3.1](#)



The screenshot shows the Apache Tomcat 9.0.113 homepage. At the top, there's a navigation bar with links to Home, Documentation, Configuration, Examples, Wiki, and Mailing Lists. On the right, there's a 'Find Help' button and the Apache Software Foundation logo. The main content area has a green header bar with the text 'If you're seeing this, you've successfully installed Tomcat. Congratulations!'. Below this, there's a cartoon cat icon and a section titled 'Recommended Reading' with links to 'Security Considerations How-To', 'Manager Application How-To', and 'Clustering/Session Replication How-To'. To the right of this section are three buttons: 'Server Status', 'Manager App', and 'Host Manager'. The 'Developer Quick Start' section contains links to 'Tomcat Setup', 'First Web Application', 'Realms & AAA', 'JDBC DataSources', 'Examples', and 'Servlet Specifications'. The 'Documentation' section links to 'Tomcat 9.0 Documentation', 'Tomcat 9.0 Configuration', and 'Tomcat Wiki'. The 'Getting Help' section links to 'FAQ and Mailing Lists' and lists several mailing lists: 'tomcat-announce' (important announcements, releases, security vulnerability notifications), 'tomcat-users' (user support and discussion), 'taglibs-user' (user support and discussion for Apache Taglibs), and 'tomcat-dev' (development mailing list, including commit messages). There are also links to 'Read more...', 'Release Notes', 'Changelog', 'Migration Guide', and 'Security Notices'.

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4. Creacion del directorio

Comandos: sudo mkdir -p webapps/hola-mundo/WEB-INF/classes

```
ubuntu@ip-172-31-69-37:/opt/tomcat$ sudo mkdir -p webapps/hola-mundo/WEB-INF/classes
```

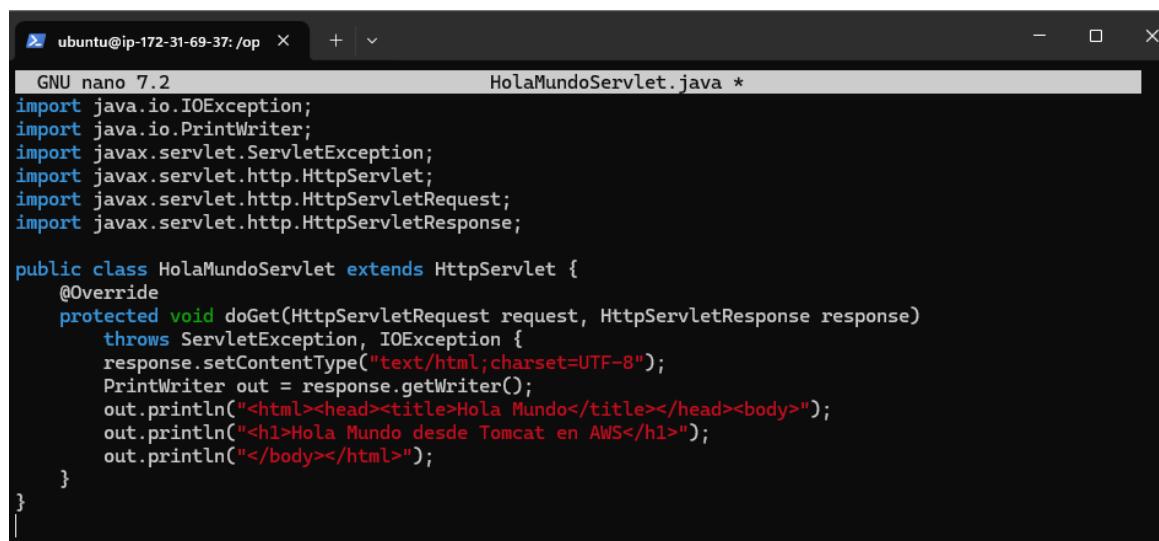
Creamos la estructura del proyecto

```
ubuntu@ip-172-31-31-166:/opt/tomcat$ mkdir -p ~/HolaMundo/WEB-INF/classes
```

5. Servlet "HolaMundo"

Comando: nano ~ /HolaMundo /WEB-INF /classes /HolaMundo.java

Creo el servlet HolaMundo



```
GNU nano 7.2                                     HolaMundoServlet.java *
```

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

public class HolaMundoServlet extends HttpServlet {
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        out.println("<html><head><title>Hola Mundo</title></head><body>");
        out.println("<h1>Hola Mundo desde Tomcat en AWS</h1>");
        out.println("</body></html>");
    }
}
```

6. Compilacion del sevlet

Comando: cd ~ /HolaMundo /WEB-INF /classes

Me situo en el directorio en el que se encuentra el sevlet

```
ubuntu@ip-172-31-31-166:/opt/tomcat$ cd ~/HolaMundo/WEB-INF/classes
ubuntu@ip-172-31-31-166:~/HolaMundo/WEB-INF/classes$ |
```

Comando: javac -cp /opt/tomcat/lib/servlet-api.jar HolaMundoServlet.java

Genero el archive .class compilandolo

```
ubuntu@ip-172-31-69-37:/opt/tomcat/webapps/hola-mundo/WEB-INF/classes$ sudo javac -cp /opt/tomcat/lib/
servlet-api.jar HolaMundoServlet.java
```

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Comando: sudo nano web.xml

Creo el archive xml

```
ubuntu@ip-172-31-69-37:/opt/tomcat/webapps/hola-mundo/WEB-INF/classes$ sudo nano web.xml

GNU nano 7.2                               web.xml *
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
          xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
                               http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd"
          version="3.1">

    <servlet>
        <servlet-name>HolaMundoServlet</servlet-name>
        <servlet-class>HolaMundoServlet</servlet-class>
    </servlet>

    <servlet-mapping>
        <servlet-name>HolaMundoServlet</servlet-name>
        <url-pattern>/hola</url-pattern>
    </servlet-mapping>

</web-app>
```

Comando: sudo mv /opt/tomcat/webapps/hola-mundo/WEB-INF/classes/web.xml
/opt/tomcat/webapps/hola-mundo/WEB-INF/

Comprobe que no funcionaba y era porque habia creado el archive xml en la ruta incorrecta, debia de estar fuera de la carpeta classes y yo lo tenia dentro. Asi que lo que hice fue moverlo a la ruta correcta.

```
ubuntu@ip-172-31-69-37:/opt/tomcat/webapps/hola-mundo/WEB-INF/classes$ sudo mv /opt/tomcat/webapps/hola-mundo/WEB-INF/classes/web.xml /opt/tomcat/webapps/hola-mundo/WEB-INF/
```

Comando: sudo systemctl restart tomcat

Reinicio el tomcat y compruebo en el navegador que funciona correctamente

```
ubuntu@ip-172-31-69-37:/opt/tomcat/webapps/hola-mundo/WEB-INF/classes$ sudo systemctl restart tomcat
```

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Hola Mundo desde Tomcat en AWS