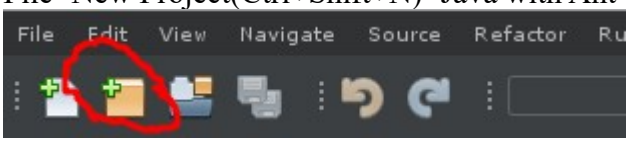
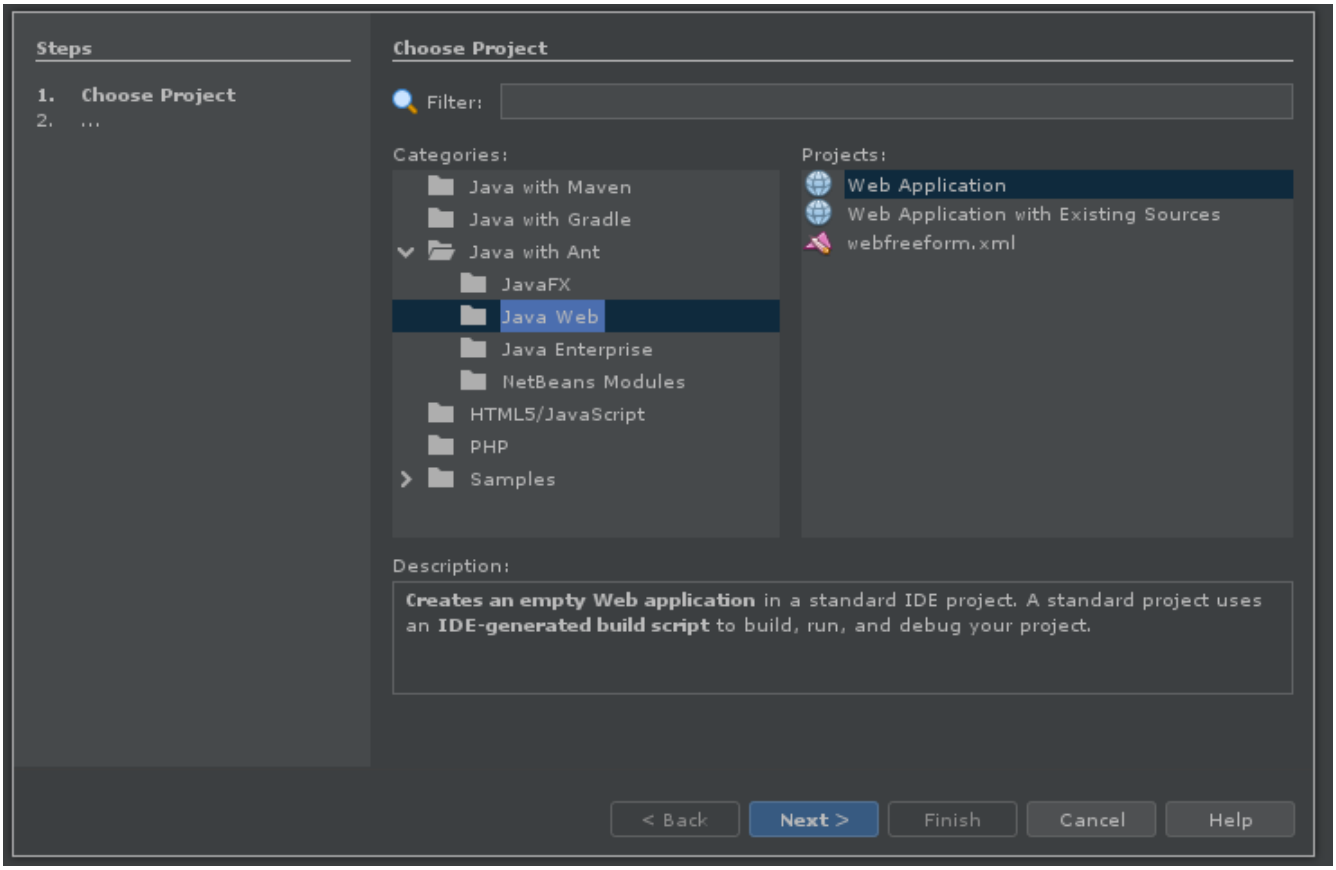
1. Install glassfish(I used 6.2.5)
archlinux$ yay -S glassfish
/opt/glassfish

2. Install netbeans(I used 13.1)
archlinux$ sudo pacman -S netbeans

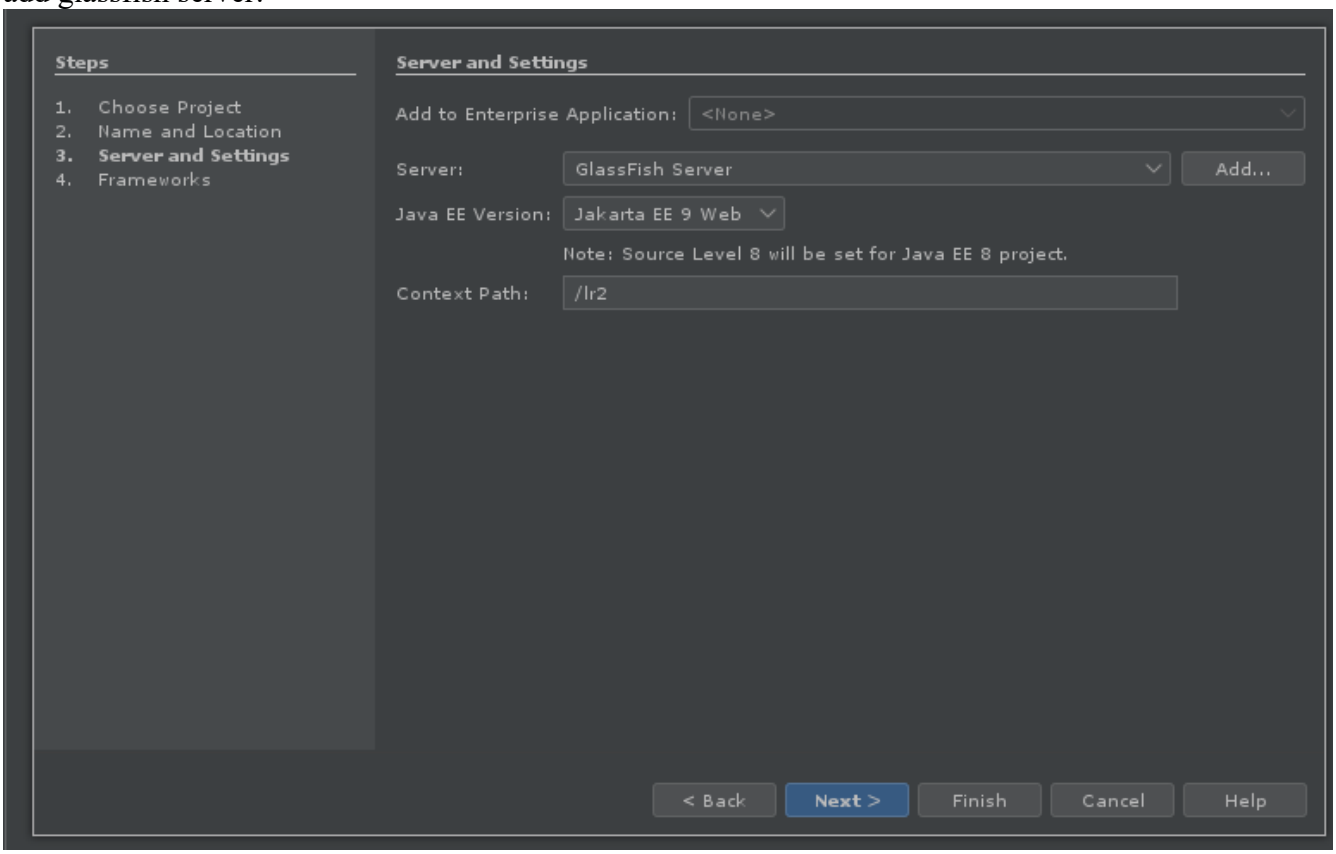
3. Install java(I used java17)
archlinux$ sudo pacman -S jdk17-openjdk

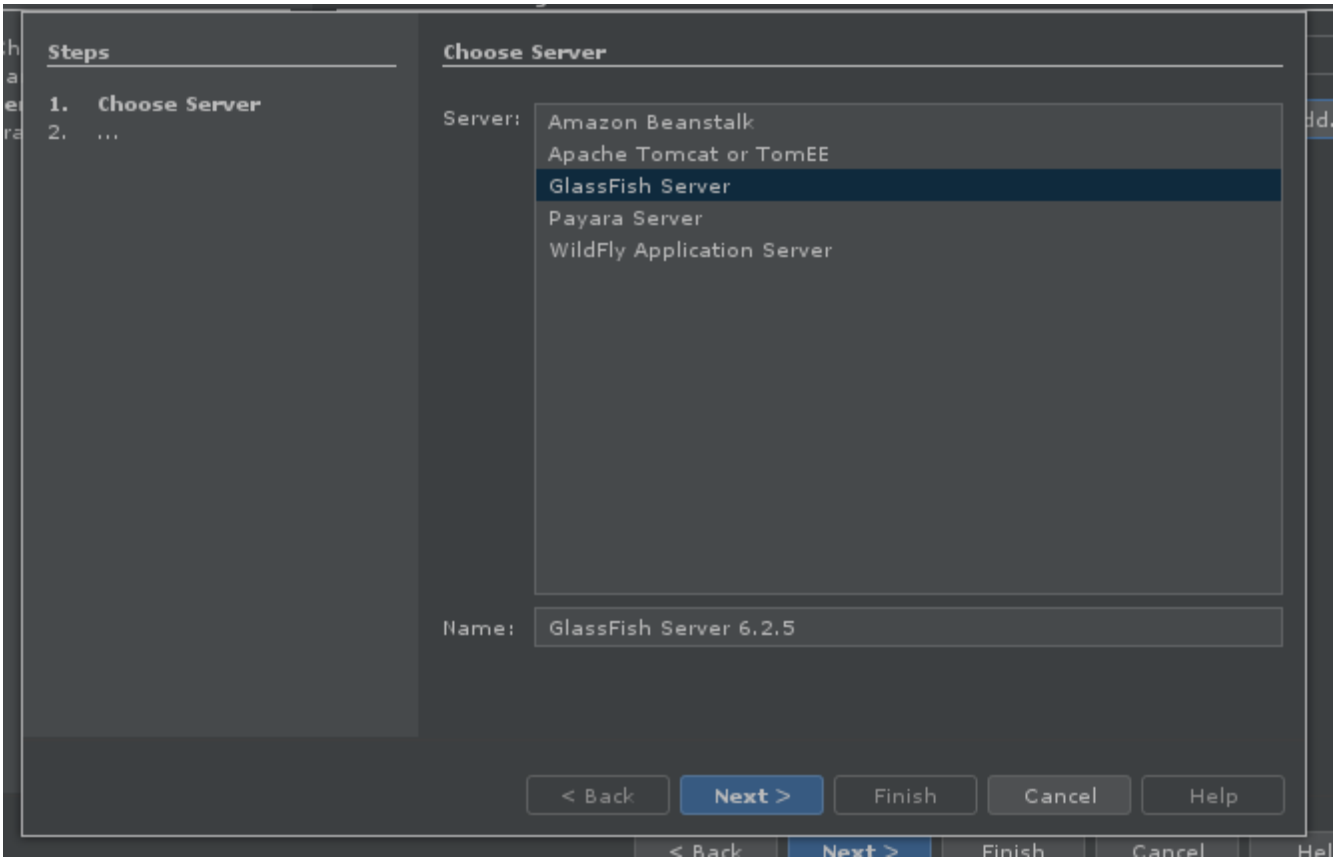
4. Create java web project with ant in Netbeans
File>New Project(Ctrl+Shift+N)>Java with Ant>Java Web>Web application

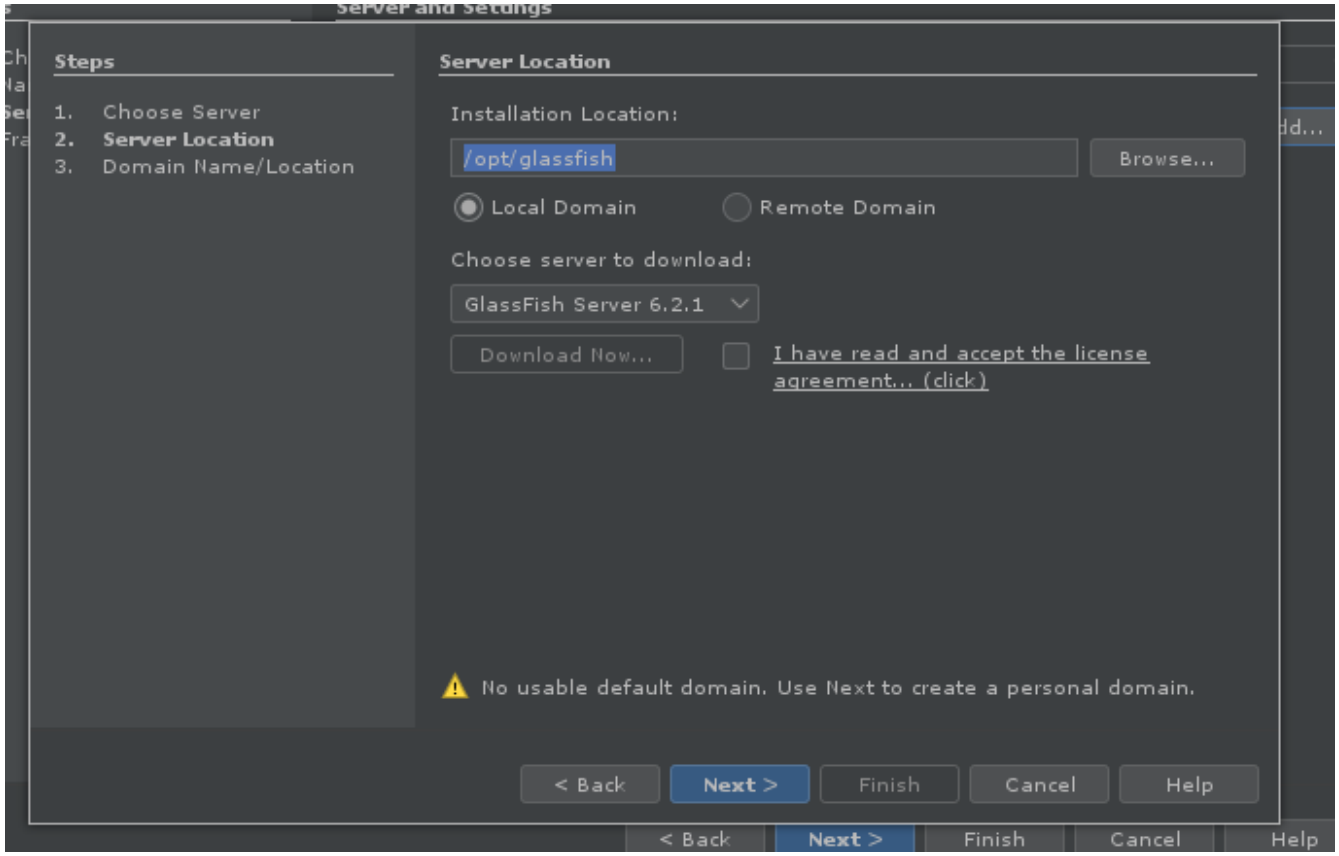


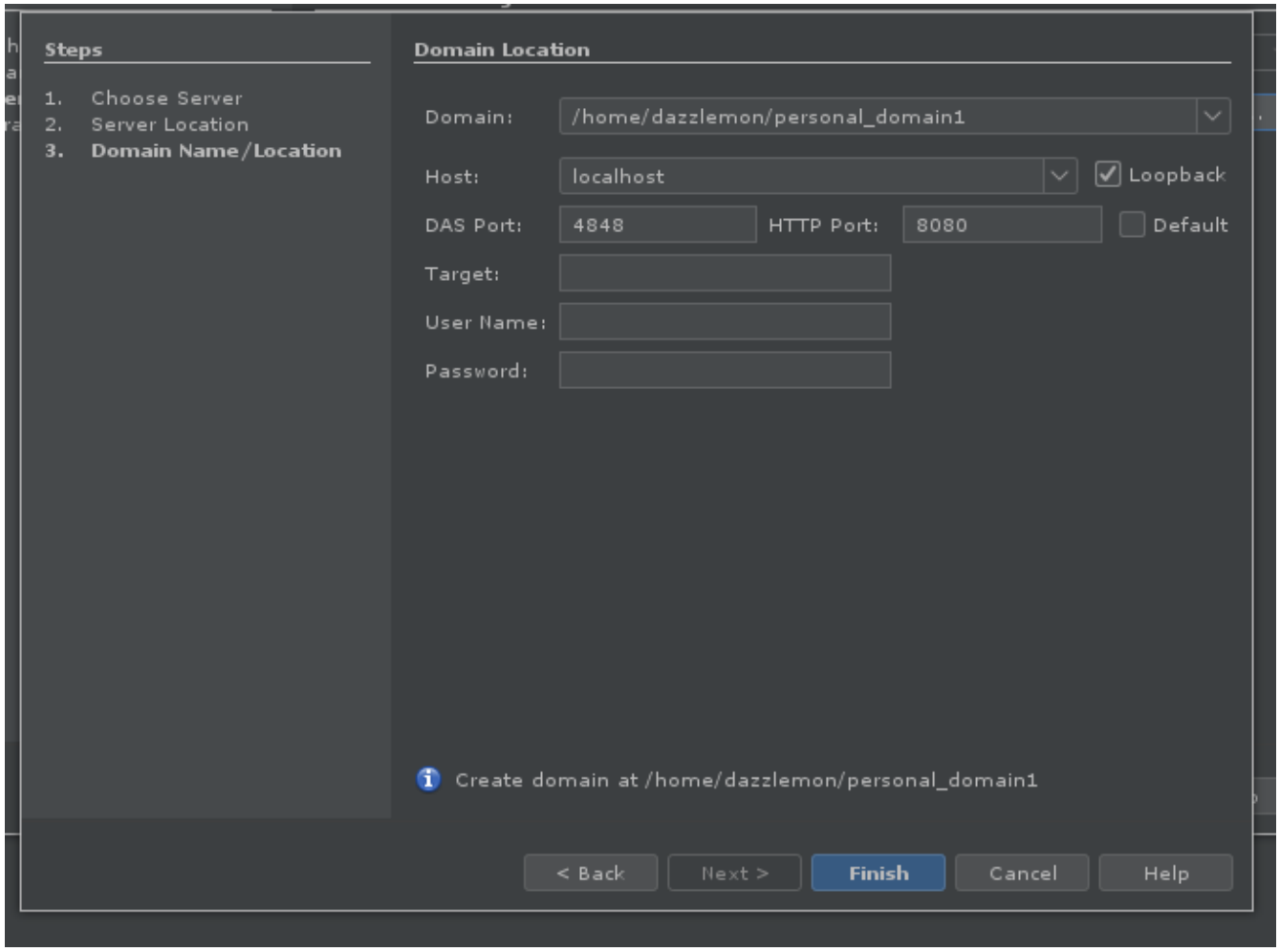


add glassfish server:





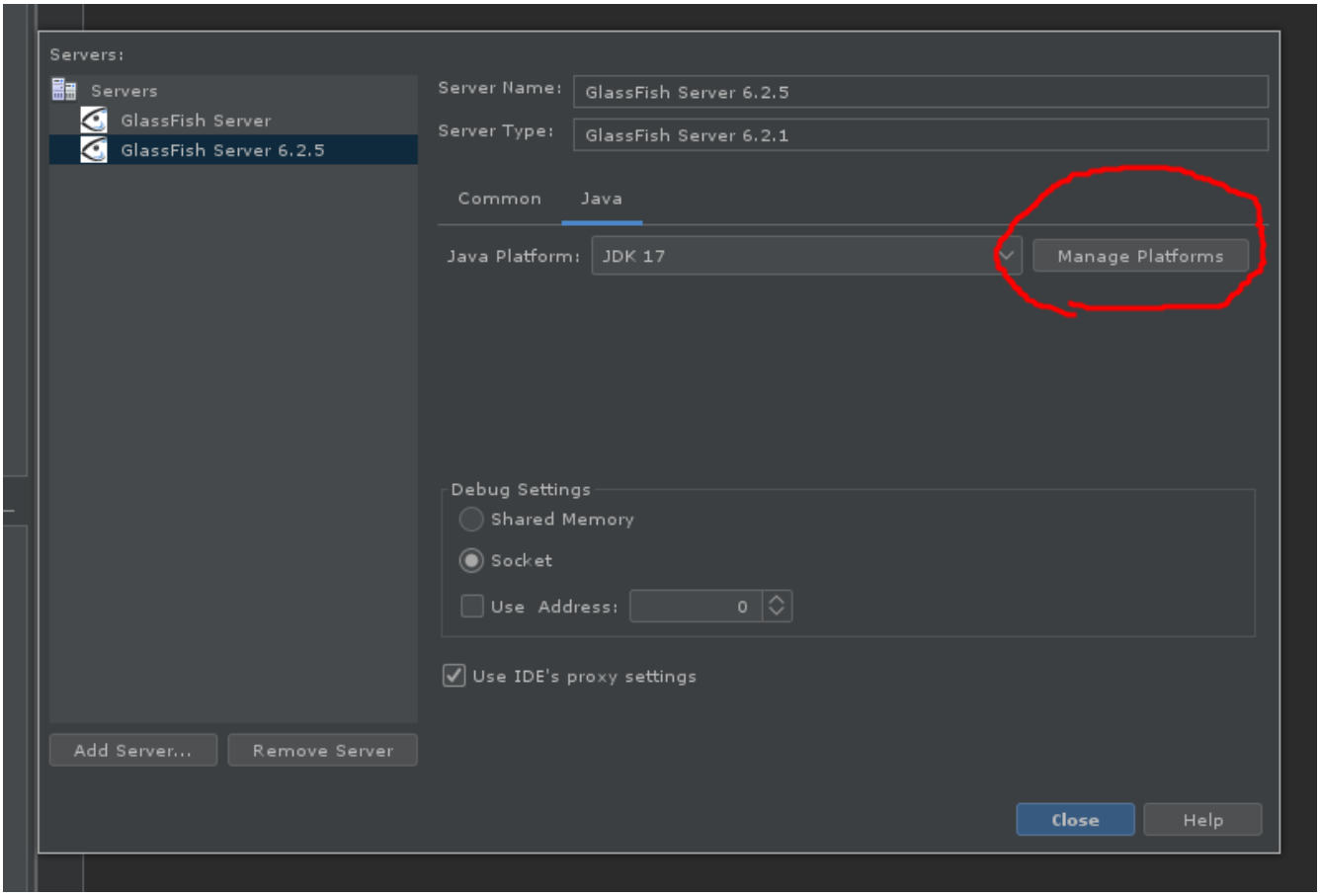

Server and Settings
Steps
1. Choose Server
2. Server Location
3. Domain Name/Location
Server Location
Installation Location:
/opt/glassfish
Browse...
Local Domain
Remote Domain
Choose server to download:
GlassFish Server 6.2.1
Download Now...
I have read and accept the license agreement... (click)
No usable default domain. Use Next to create a personal domain.
< Back
Next >
Finish
Cancel
Help

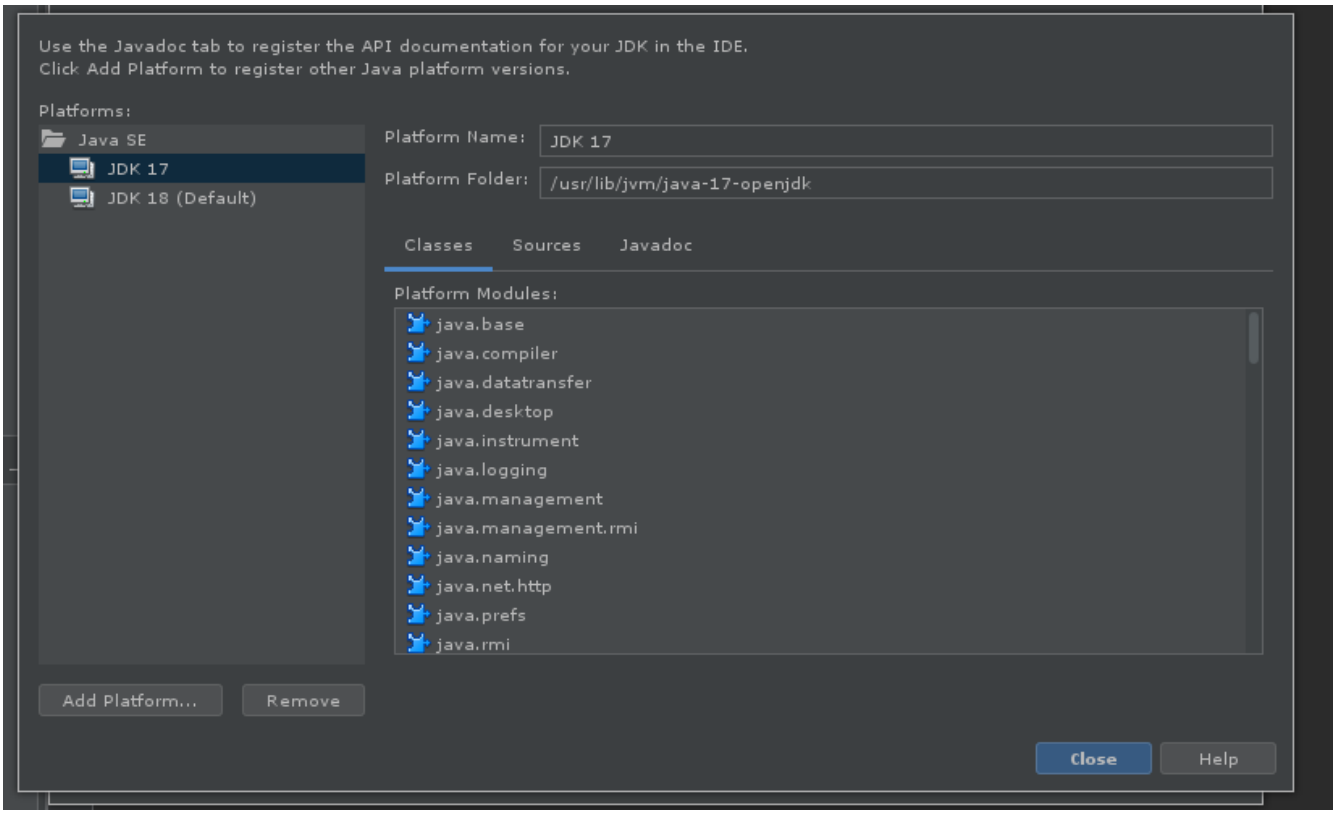


5. Start glassfish

Change java version(if you have multiple installed it might auto detect the wrong one):

In your project: Services>Servers>Glassfish Server(Right click)>Properties>Java>Manage Platforms

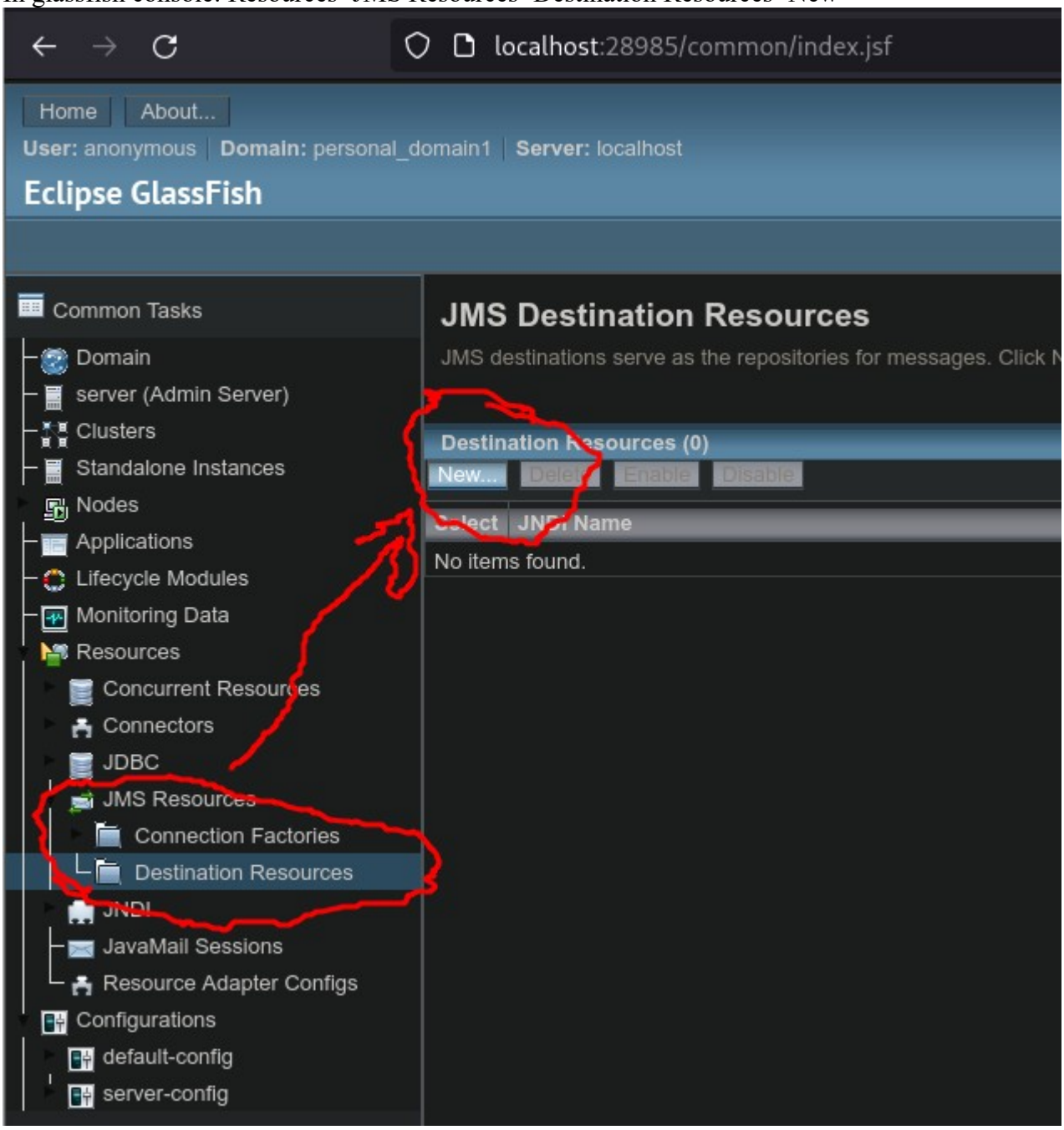


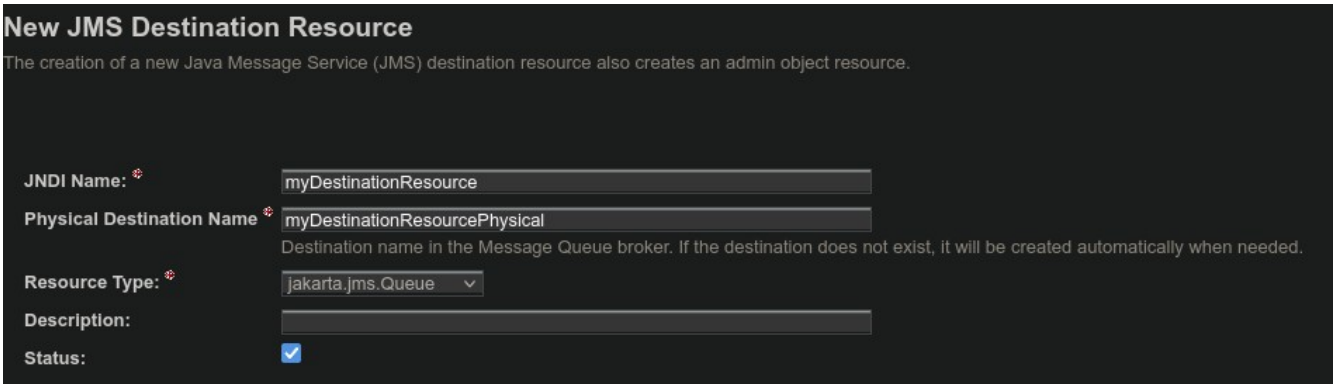


In your project: Services>Servers>Glassfish Server(Right click)>Start

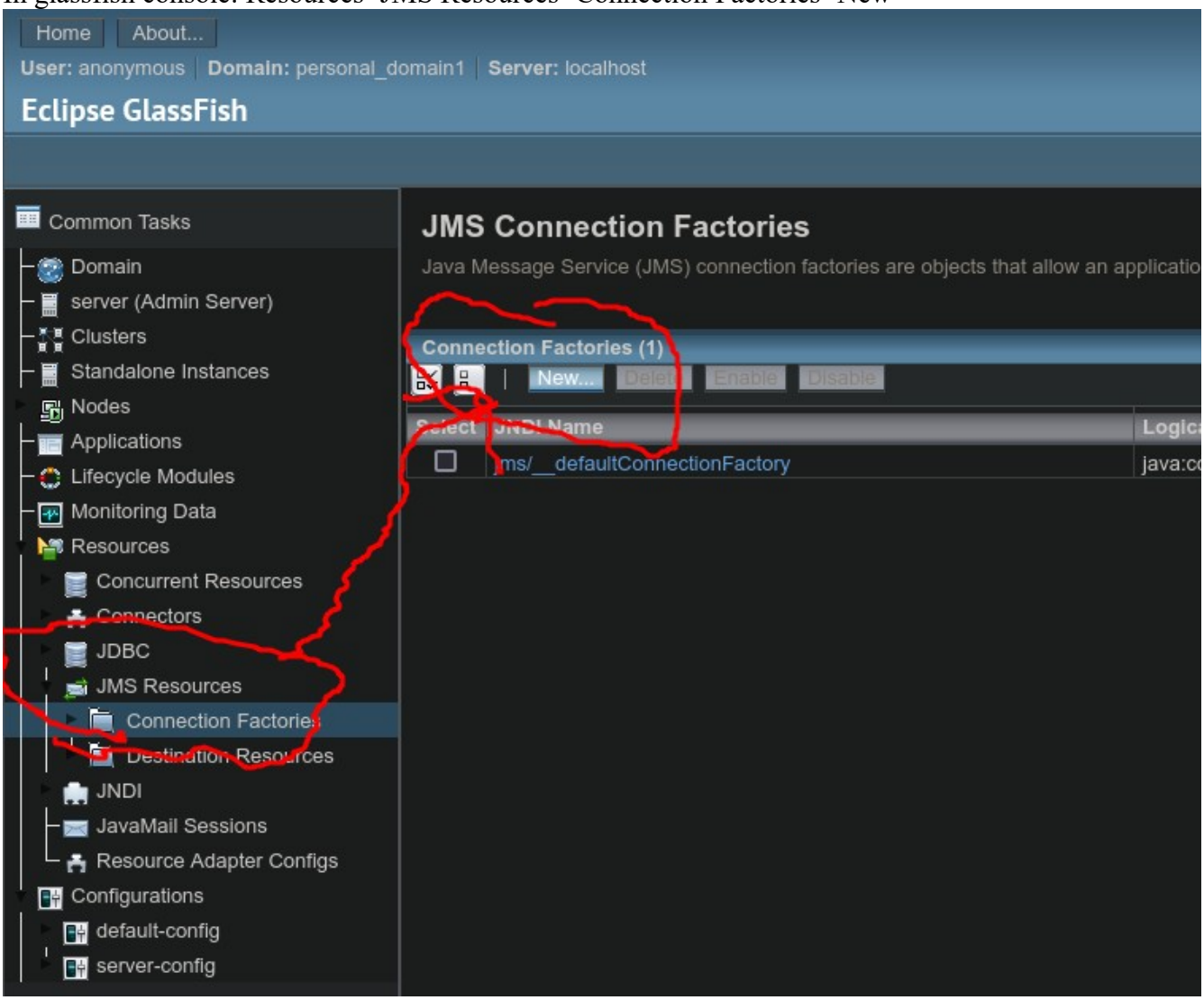
6. Open glassfish console
In your project: Services>Servers>Glassfish Server(Right click)>View domain admin console

7. Create Destination Resource
In glassfish console: Resources>JMS Resources>Destination Resources>New





8. Create Connection Factory
In glassfish console: Resources>JMS Resources>Connection Factories>New



New JMS Connection Factory

The creation of a new Java Message Service (JMS) connection factory also creates a connector connection pool for the factory and a connector resource.

General Settings

JNDI Name: myConnectionFactory

Resource Type: jakarta.jms.ConnectionFactory

Description:

Status: ☑

Pool Settings

Initial and Minimum Pool Size: 1 Connections
Minimum and initial number of connections maintained in the pool

Maximum Pool Size: 250 Connections
Maximum number of connections that can be created to satisfy client requests

Pool Resize Quantity: 2 Connections
Number of connections to be removed when pool idle timeout expires

Idle Timeout: 300 Seconds
Maximum time that connection can remain idle in the pool

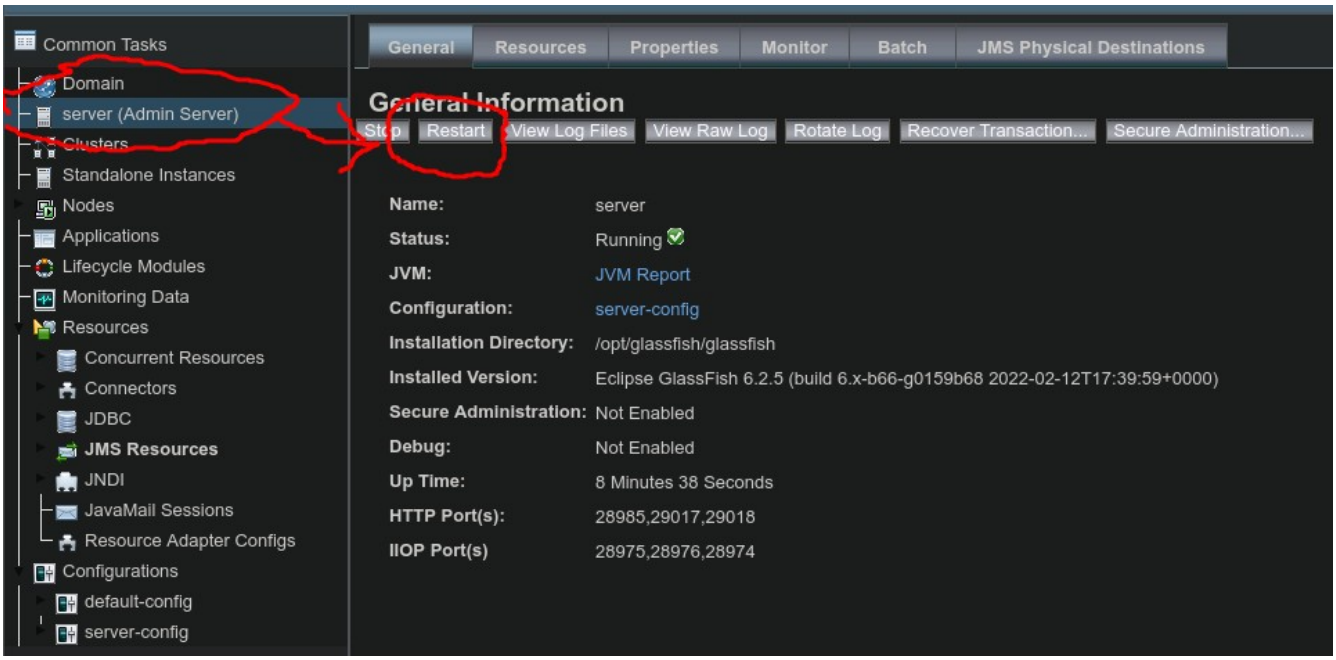
Max Wait Time: 60000 Milliseconds
Amount of time caller waits before connection timeout is sent

On Any Failure: ☐ **Close All Connections**
Close all connections and reconnect on failure, otherwise reconnect only when used

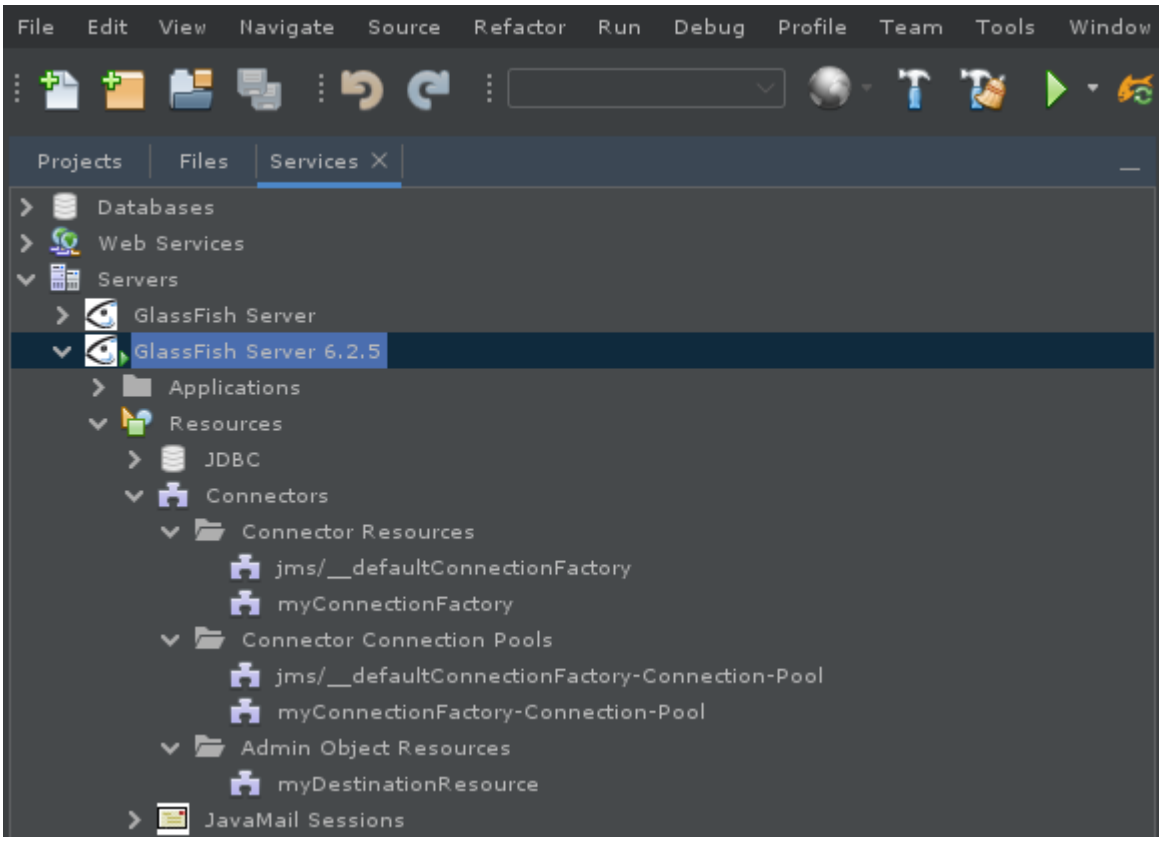
Transaction Support:
Level of transaction support. Overwrite the transaction support attribute in the Resource Adapter in a downward compatible way.

Connection Validation: ☐ **Required**
Validate connections, allow server to reconnect in case of failure

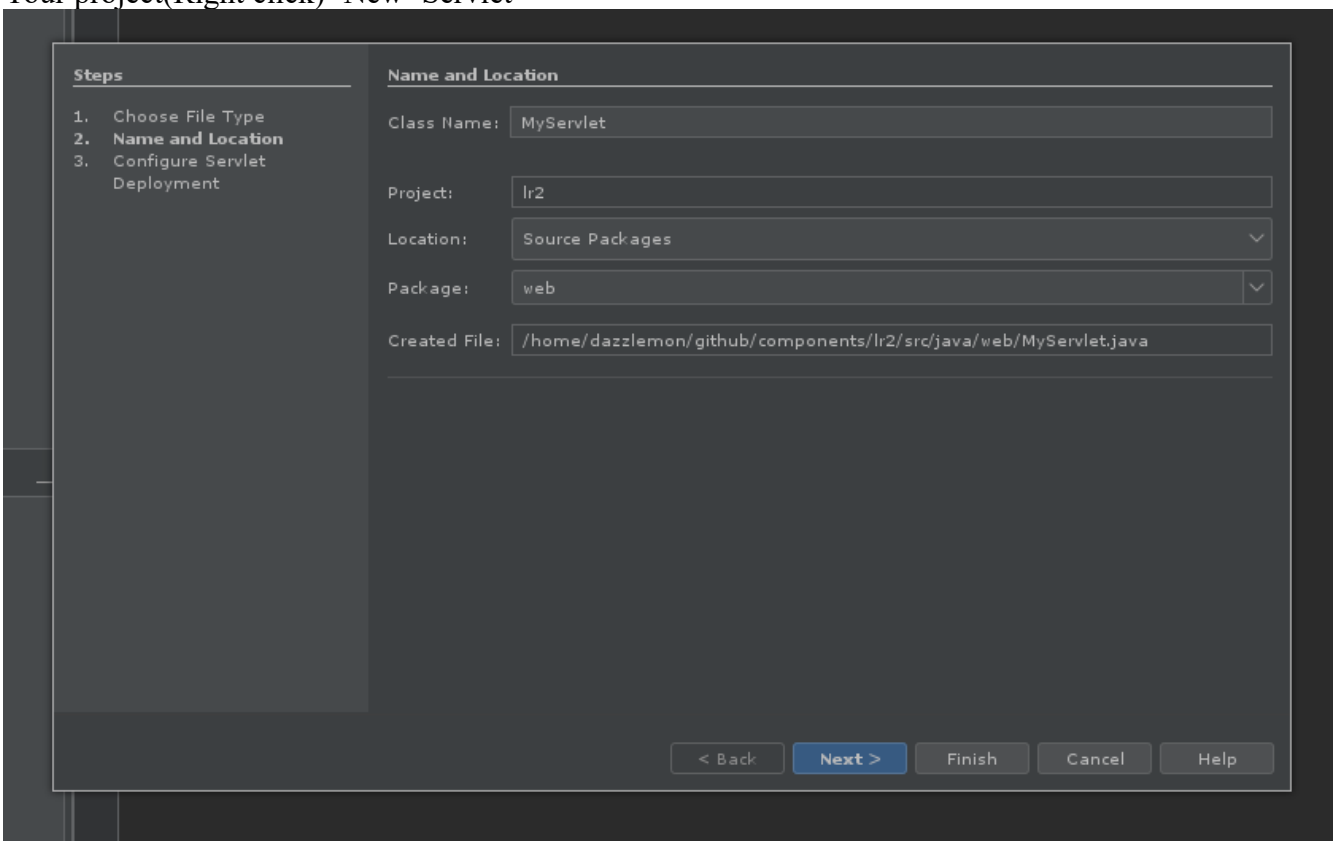
9. Restart Glassfish
in Glassfish console: server>restart



Here are our resources in netbeans



10. Create servlet:
Your project(Right click)>New>Servlet



11. Edit index.html

```
<!DOCTYPE html>
<!--
Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Html.html to edit this template
-->
<html>
    <head>
        <title>TODO supply a title</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
    <body>
        <div>Enter a name</div>
        <<form action="MyServlet" method="get">
            <input type="text" name="name"/>
            <button type="submit">Submit</button>
        </form>
    </body>
</html>
```

12. Edit MyServlet.java

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Servlet.java to edit this template
 */
package web;

import java.io.IOException;
import java.io.PrintWriter;
import jakarta.servlet.ServletException;
import jakarta.servlet.annotation.WebServlet;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

/**
 *
 * @author dazzlemon
 */
@WebServlet(name = "MyServlet", urlPatterns = {"/MyServlet"})
public class MyServlet extends HttpServlet {

    /**
     * Processes requests for both HTTP <code>GET</code> and <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        // Reading inputs from form
        String name = request.getParameter("name");

        response.setContentType("text/html;charset=UTF-8");
        try ( PrintWriter out = response.getWriter()) {
            /* TODO output your page here. You may use following sample code. */
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet MyServlet</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<h1>Your name is " + name + "</h1>");
            out.println("</body>");
            out.println("</html>");
        }
```

```
    }

    // <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to
edit the code.">
    /**
     * Handles the HTTP <code>GET</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Handles the HTTP <code>POST</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```

13. Build project
14. run project(it will open in your browser)
15. update code to add post method

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Servlet.java to edit this template
 */
package web;

import jakarta.annotation.Resource;
import jakarta.jms.Connection;
import jakarta.jms.ConnectionFactory;
import jakarta.jms.JMSException;
import jakarta.jms.MessageProducer;
import jakarta.jms.Queue;
import jakarta.jms.Session;
import jakarta.jms.TextMessage;
import java.io.IOException;
import java.io.PrintWriter;
import jakarta.servlet.ServletException;
import jakarta.servlet.annotation.WebServlet;
import jakarta.servlet.http.HttpServlet;
import jakarta.servlet.http.HttpServletRequest;
import jakarta.servlet.http.HttpServletResponse;

/**
 *
 * @author dazzlemon
 */
@WebServlet(name = "MyServlet", urlPatterns = {"/MyServlet"})
public class MyServlet extends HttpServlet {
    @Resource(mappedName="myConnectionFactory")
    private ConnectionFactory connectionFactory;

    @Resource(mappedName="myDestinationResource")
    private Queue destinationQueue;

    /**
     * Processes requests for both HTTP <code>GET</code> and <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(
        HttpServletRequest request, HttpServletResponse response
    ) throws ServletException, IOException {
```

```
        String name = request.getParameter("name");

        try (
            Connection connection = connectionFactory.createConnection();
            Session session = connection.createSession(
                false, Session.AUTO_ACKNOWLEDGE);
            MessageProducer messageProducer = session.createProducer(
                destinationQueue)
        ) {
            TextMessage textMessage = session.createTextMessage();
            textMessage.setText(name);
            messageProducer.send(textMessage);
        } catch (JMSException e) {
            // TODO
        }

        response.setContentType("text/html;charset=UTF-8");
        try ( PrintWriter out = response.getWriter()) {
            /* TODO output your page here. You may use following sample code. */
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet MyServlet</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<h1>Your name is " + name + "</h1>");
            out.println("</body>");
            out.println("</html>");
        }
    }

    // <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to
edit the code.">
    /**
     * Handles the HTTP <code>GET</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Handles the HTTP <code>POST</code> method.
```

```
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```

16. Build
17. Deploy
18. You can see number of POSTs here:
Server>JMS Physical Destinations>myDestinationPhysical>View>Number of Messages