

Assignment 1 – Servlets

In this assignment, you are asked to create a simple Java EE web application which allows the user to maintain a list of tasks (ToDo objects). Please see the flowchart on the following page also to see the program flow.

1. To store task details, create a simple Java bean class (e.g. *ToDo.java* – put this in a separate package) which just contains a task's subject and details, as well as appropriate getter & setter methods and constructor.
2. On the *index.html* page implement a simple login form, which takes as inputs the username and password.
3. The login form is submitted to a servlet (e.g. *LoginServlet*) which performs a hard-code username and password check, e.g. *if (username.contentEquals("owen") && pwd.contentEquals("1234"))*. If the username / password combination are correct the servlet adds the username to the session as an attribute, and forwards control to another servlet (e.g. *GetToDoList*) to retrieve the list of tasks from the session. If the username / password combination is incorrect, the login servlet redirects back to the *index.html* page.
4. The second (*GetToDoList*) servlet will retrieve the list of tasks from the HttpSession object. If there are no tasks created already, the page returned by this servlet will just contain a link to bring the user to the *addToDo.html* page. If there are tasks in the list retrieved from the session, it will also output these as a HTML table, as well as the link to the AddToDo form page.
5. The *AddToDo.html* page simple contains a form for inputting a new tasks, and is submitted to a third servlet, called for example *AddToDo*
6. The *AddTodoservlet* creates a new *ToDo* object using the form input parameters, and adds it to the list on the session object before redirecting back to the *GetToDoList*servlet. As described above, this will output the list of tasks stored on the session.
7. So, every time you add a *valid* task, it is added to the list, which is displayed, and you are given the option to add another one.

To submit your assignment:

- Perform a 'Clean' on the project (right click on Project and choose option *Clean*)
- Zip the project folder (download 7Zip if you don't have a suitable compression tool already <https://www.7-zip.org/>)
- Submit the Zip file on Canvas for the assignment



index.html

Login incorrect –
redirect back to
index.html



Login to manage your tas

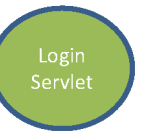
Username

Password

Form submit goes to login servlet

Fill login form

index.html



Login to manage your tasks

Username

Password

Form submit goes to login servlet

Login correct –
redirect to servlet to
retrieve and display
todo list



Send html back to browser

html from servlet

Todo Tasks

Subject	Task
Programming	Assignment #1

[Add Task](#)

index.html

Login to manage your tasks

Username

Password

Click on 'Add Task' –
go to add todo form

html from servlet

Todo Tasks

Subject	Task
Programming	Assignment #1

[Add Task](#)

Retrieve todo list,
build html page and
table and return to
browser



Add to list on
Session and forward
to get todo list
servlet



html from servlet

Add Todo Task

Subject

Task

Click on 'Add Task' –
go to add todo form

AddTodo.html

Add Todo Task

Subject

Task

Submit form – to
servlet to create
new Todo object

AddTodo.html

Todo Tasks

Subject	Task
Programming	Assignment #1
Domestic Stuff	Wash Clothes

[Add Task](#)

Retrieve todo list,
build html page and
table and return to
browser



Add to list on
Session and forward
to get todo list
servlet



Submit form – to
servlet to create
new Todo object