**FACILITATOR’S MANUAL**

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| Facilitator’s manual is a guideline to facilitator. Guideline for which all topics /sub-topics to be covered and their sequence. When to go recap or hands-on and with which assignment (mapping of lab assignments with topics)  Basically WHAT–WHEN-HOW  Here, Whole session will be in multiple iteration of 3 steps;  1. What to facilitate, 2. Relevant LAB assignments, 3. Recap and leanings from LAB  Also, there are TIPS (extract from facilitator’s learning) – objective of TIPS is to incorporate best practice and individual’s innovation in facilitating a particular topic. It is desirable that new tips should continue to add/update in this manual.  At last, this is not a rulebook, so it is upto facilitator to follow it or use his/her own style |

**Servlet – getting started (Basics of servlet programming)**

**Objective -**  To understand advantages of SERVLET, Understanding of web application, Structure and deployment, Understanding of the servlet Model.

**ROUND 1**

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| Topics to be facilitated (teach) | * Overview of client-server arch /environment * Comparing Servlets with the CGI scripts. * Concept of web application * Concept of Deployment descriptor * web.xml * Brief on Tomcat (web server) * URL details like – Localhost, 8080 etc * Directory structure of web application. |
| LAB assignment | **Refer - LAB 1.1**  *Create a web application, write web.xml, welcome file; create a welcome.html and now run the application on server (tomcat). Requirement is that the welcome.html file comes on web browser on writing the url* |
| Recap (learning from the LAB assignment) | Understanding of web application  Deployment descriptor |

**ROUND 2**

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| Topics to be facilitated (teach) | * Servlet overview * Architecture of servlet package. * HTTP protocol overview * Concept of servlet Containers. * Web container * Servlet life cycle * Servlet class hierarchy * HTTP servlet request * Mapping of request to servlet class * Mapping in web.xml * Get and Post |
| LAB assignment | **Lab 1.2**  *Now on the welcome.html page – create an input type field and submit button; now user will enter a name in input field and on submit, the system will receive this name and print it on console* |
| Recap (learning from the LAB assignment) | how to map request with a servlet class (servlet-mapping in web.xml)  how code flow from HTML page to servlet class and in which method (GET and POST)  how to receive data from HTML page (use of request.getParameter) |

\*TIPS TIME – while creating workspace and JEE project, ask associate/participant to check the same in their system, if the files and folder are automatically creating in the respective (defined location) in their system.

**ROUND 3**

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| Topics to be facilitated (teach) | * HTTP servlet response * Response type – * HTML code on Java * **Sending requests** * Web browsers and HTTP methods. * Comparing HTTP methods. * **Servlet life cycle** * Loading and instantiating a servlet. * Initializing a servlet. * Servicing client requests. * Destroying a servlet. * Unloading a servlet. * Servlet state transition from the servlet container's perspective. * **ServletConfig** * Define Servlet Config * ServletConfig methods * ** ServletContext:** * Sharing the data (attribute scopes) * Coordinating servlets using RequestDispatcher * Redirect Vs RequestDispatcher. |
| LAB assignment | **Ref - LAB 1.2**  *Write servlet program which will generates the HTML, print/display, a message “Hello WWW” on browser.* |
| Recap (learning from the LAB assignment) | How to send the http requests to the web server .  How to initialize the servlet.  How to use the servletconfig parameters  How to use the servletcontext parameters |