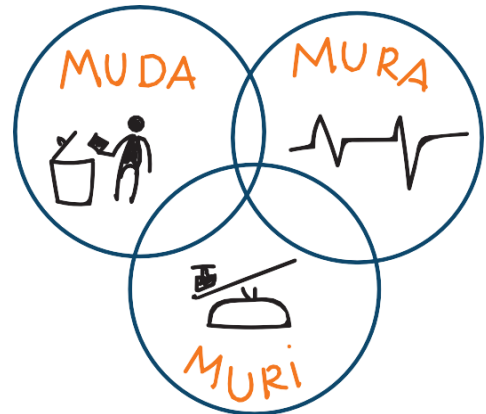
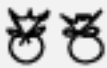



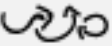






Three Types of Inefficiencies

- Muda** Waste, or every element of the process that does not add value from the customer's perspective.
- Muri** Overburdening employees, tools or machines leading to quality and safety problems.
- Mura** Unevenness caused, for example, by unforeseen problems or the fluctuation of orders, deliveries or events.



Ten Types of Waste (Muda)

| Waste | In Software Development |
|--|---|
|  Inventory | Work in progress - anything that was started but not completed: requirements not implemented; code not integrated, functionality not tested, feature not deployed. Backlogs and queues. |
|  Overproduction | Features customers do not need or use. |
|  Over-Processing | Processes and activities that do not add value to the product. Excessive documentation. Rediscovery and re-learning. |
|  Transport | Handoffs. Transferring knowledge between employees. |
|  Motion | Multitasking – an attempt to perform several tasks at the same time. Causes waiting and re-learning. |
|  Waiting | Delays caused by waiting for information, decisions, resources, or components delivered by another team/department. |
|  Defects | Bugs disrupting the sustainable pace and leading to overloading employees (Muri). |
|  Wishful Thinking | Creating plans based on unrealistic expectations rather than basing them on feedback and reality. |
|  Information Scatter | Knowledge unavailable to those who need it. |
|  Underutilized Human Potential | Employees not being involved in the process of continuous improvement (Kaizen). Failure to raise expectations towards employees. No employee development. Working to title. |