Lean: Kanban
Signaling Production Needs

Kanban Cards are a core element of the JIT production system. They act as visual signals that trigger the production or replenishment of specific items.

How Kanban Board/Cards Work:
1. Inventory Level:
   a. Each container or storage location has a designated Kanban card attached to it.
2. Signal for Replenishment:
   a. When the inventory level in the container drops to a predetermined level, the Kanban card is removed and sent to the supplier or production department.
3. Production Trigger:
   a. The card acts as a signal to produce or order the necessary items to replenish the inventory.
4. Cycle Repeats:
   a. Once the inventory is replenished, the Kanban card is returned to the original location, and the cycle repeats.

Benefits of Kanban Cards:
- Reduced Inventory: By only producing what is needed when it is needed, Kanban cards help to minimize inventory levels and reduce associated costs.
- Improved Workflow: They create a smooth and efficient flow of materials within the production process.
- Increased Visibility: Kanban provides real-time visibility into inventory levels and production status.
- Empowerment: They empower employees to take ownership of the production process and make decisions about when to replenish inventory.

Real-world Example:

In a manufacturing plant, Kanban might be used to signal the need for specific components to be delivered to the assembly line. When the inventory of a particular component drops below a certain level, the Kanban is sent to the supplier, triggering the production or shipment of additional components.

Key Takeaway: Kanban is a simple yet effective tool for implementing JIT principles and improving the efficiency of production processes. By using visual signals to trigger production, Kanban cards help to minimize waste, reduce inventory, and improve overall productivity.