# Solution Design

## Selection Criteria

1.Material Number Range:

Users can specify a range of material numbers to include in the report.

Default: All material numbers.

2.Plant Selection:

Users can filter the report based on a specific plant or a range of plants.

Default: All plants.

3.Storage Location Selection:

Users can select a storage location or a range of storage locations.

Default: All storage locations.

## Validation

1.Mandatory Fields:

Ensure that the mandatory fields, including Material Number (matnr), Plant (werks), Storage Location (lgort), Total Stock (labst), Stock in Quality Inspection (insme), and Stock in Transfer Posting Zone (umlme), are populated for each record.

## Authorizations

The report should include the Authorization at the level of Plant.

## Data Selection and Error Handling

**Report Logic** **–**

A Material inventory data model shall be created with the custom data model name (Z\_MAT\_INV).

Sorting:

Display material inventory details in ascending order based on Material Number (matnr) by default. Allow users to sort based on other columns (e.g., plant, total stock).

User-Friendly Display:

Ensure a user-friendly display with clear separation between material details.

Performance Optimization:

Optimize the report logic for efficient execution.

Filtering:

Implement filtering options based on user-defined selection criteria.

