

# Asset Management System -Deployment& working document

## Step 1 – Deploy the Package

- ❖ The administrator uploads the .sppkg file to the SharePoint App Catalog.
- ❖ Steps:
- ❖ Upload solution to App Catalog
- ❖ Deploy the solution
- ❖ Add the application to the target site

## Step 2 – Add the App to the Site

- ❖ Open Site Contents
  - ❖ Click Add an App
  - ❖ Select Asset Management System
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## Step 3 – Create a Page

- ❖ Create a new SharePoint page
- ❖ Add the Asset Management Web Part
- ❖ Publish the page

## Step 4 - Automatic SharePoint List Creation

**Asset Management Setup Required**

To enable full Asset Management functionality, the following SharePoint lists need to be created:

**5** LISTS      **48** TOTAL FIELDS      **8-12s** ESTIMATED TIME

**Required Lists**

- Products (Assets) List**  
Main list where each product/asset entry will be stored  
16 fields, 2-3 seconds  
Auto ID, Lookup Fields, Date Fields, Choice Fields
- Asset Types / Models List**  
Used as a lookup list for product classification  
7 fields, 1-2 seconds  
Auto ID, Lookup Fields, Date Fields, Choice Fields
- Asset Assignments List**  
Tracks which asset is assigned to whom and when  
8 fields, 1-2 seconds  
Auto ID, Lookup Fields, Date Fields, Choice Fields
- Maintenance / Service Records List**  
Tracks all maintenance actions  
9 fields, 1-2 seconds  
Auto ID, Lookup Fields, Date Fields, Choice Fields
- Asset History / Audit Log List**  
Stores every asset event for auditing  
8 fields, 1-2 seconds  
Auto ID, Lookup Fields, Date Fields, Choice Fields

**Important Notes:**

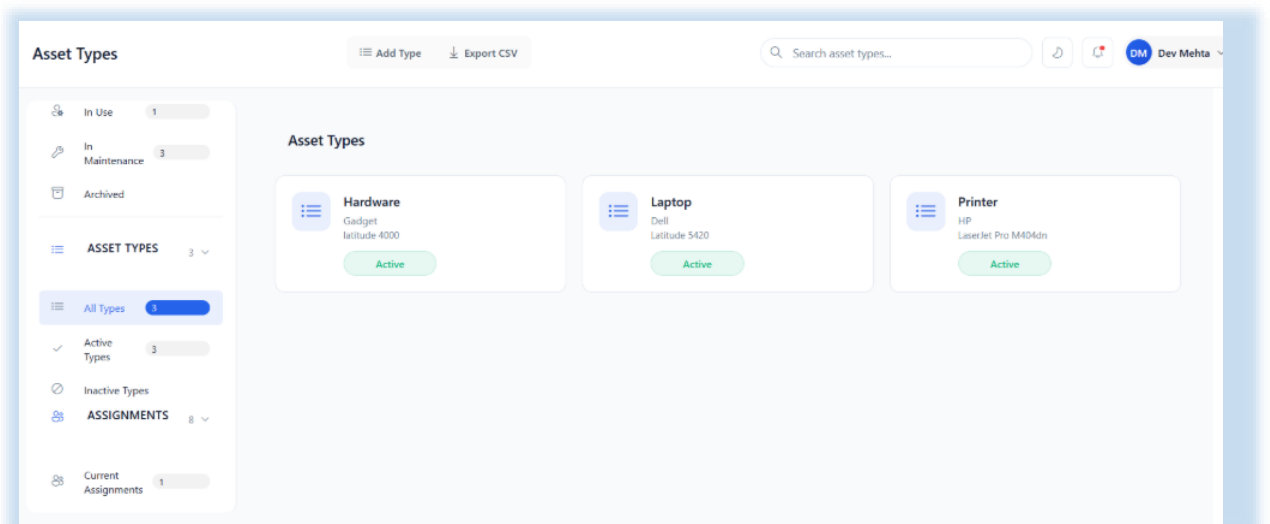
- Lists will be created in the current SharePoint site
- All field types and relationships will be automatically configured
- Existing data will not be affected
- You can customize fields later

[Skip Setup](#)      [Start Automatic Setup](#)

- ❖ When the page is opened for the first time, the system automatically displays a **List Creation Popup**.

- ❖ This process creates all required SharePoint lists automatically.
- ❖ Lists created include:
  - Asset Types
    - Products
    - Asset Assignments
    - Maintenance Records
    - Asset History
- ❖ This eliminates manual list configuration and ensures consistent structure.

## ❖ Step -5 Asset Type Management Module



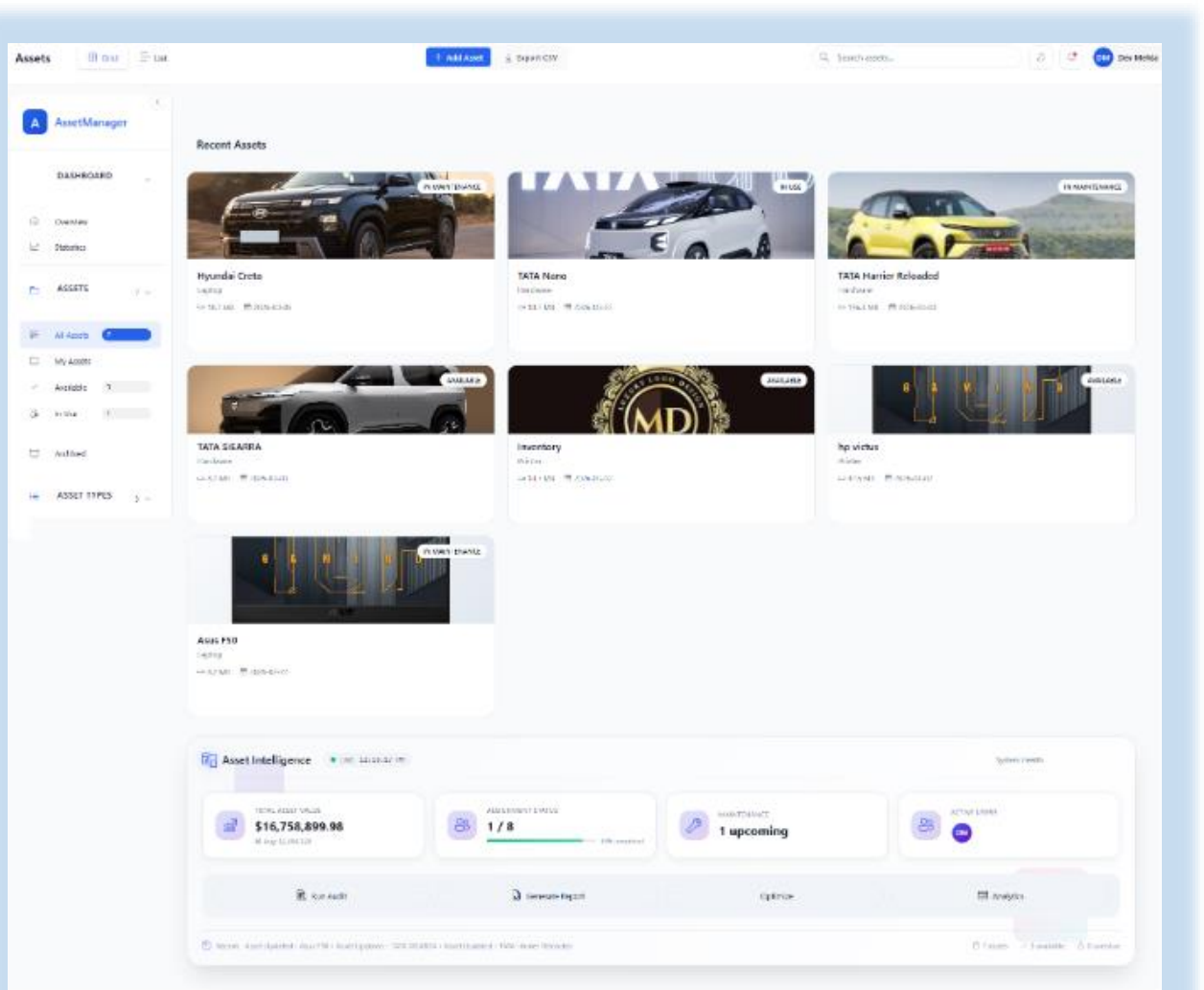
This module allows administrators to define asset categories.

- ❖ Examples include:
  - Laptop
    - Monitor
    - Printer
    - Mobile Device

## ❖ Features:

- Create asset type:
- Update asset type
- Delete asset type
- View asset type

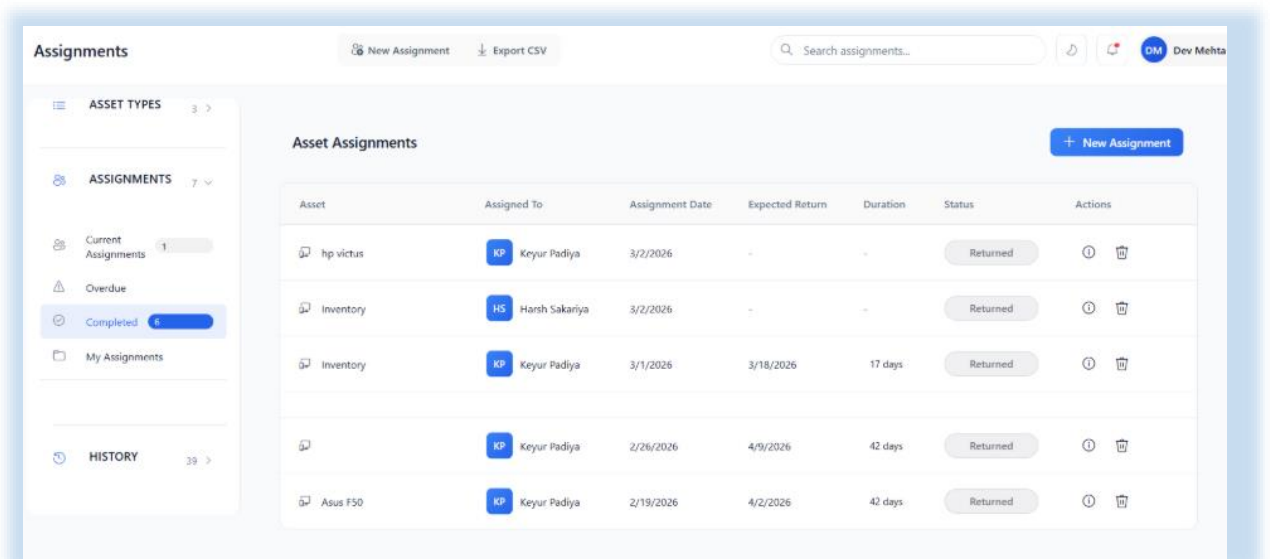
## ❖ Step -6 Asset Management Module:



This module allows users to manage individual assets.

- ❖ Each asset contains important information such as asset type, purchase date, and status.
- ❖ Asset Status Types:
  - Available
    - In Use
    - In Maintenance
    - Retired
    - Disposed
- ❖ Features:
  - Create asset:
  - Update asset:
  - Delete asset
  - View asset list

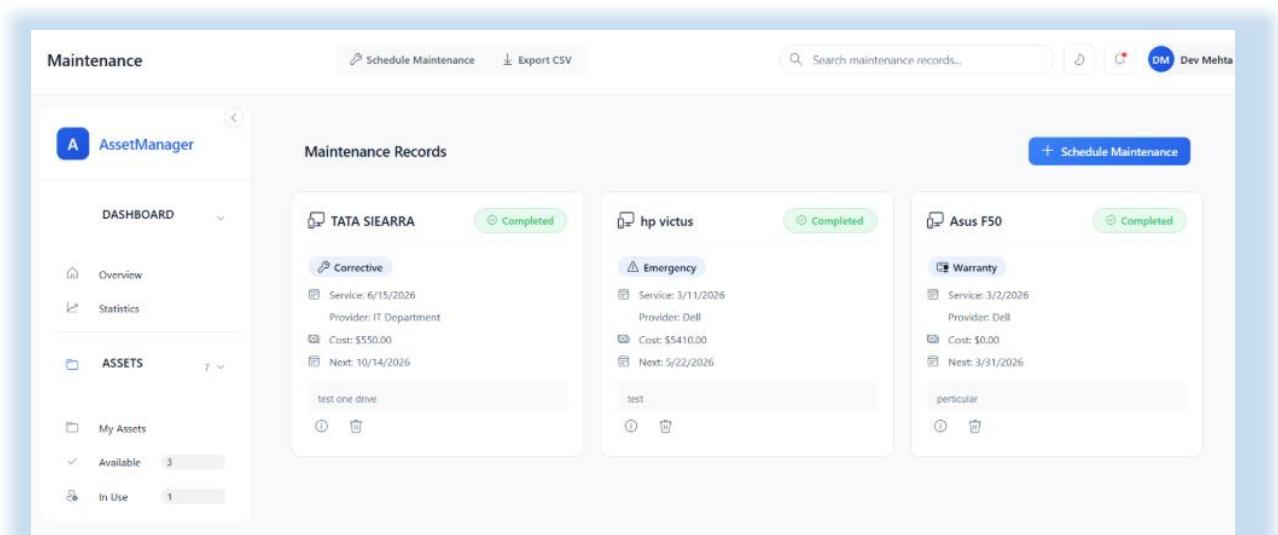
## Step -7 Asset Assignment Module



Asset	Assigned To	Assignment Date	Expected Return	Duration	Status	Actions
hp victus	KP Keyur Padiya	3/2/2026	-	-	Returned	🔍 🗑️
Inventory	HS Harsh Sakariya	3/2/2026	-	-	Returned	🔍 🗑️
Inventory	KP Keyur Padiya	3/1/2026	3/18/2026	17 days	Returned	🔍 🗑️
	KP Keyur Padiya	2/26/2026	4/9/2026	42 days	Returned	🔍 🗑️
Asus F50	KP Keyur Padiya	2/19/2026	4/2/2026	42 days	Returned	🔍 🗑️

- ❖ This module allows assets to be assigned to users.
- ❖ It ensures that assets are assigned only when they are available.
- ❖ Features:
  - Assign Asset
  - View assignment history
  - Return assigned asset

## ❖ Step -8 Maintenance Management Module:



This module tracks maintenance activities for assets.

- ❖ Maintenance helps ensure assets remain in good working condition.
- ❖ Features:
  - Schedule maintenance
    - Update maintenance status
    - Record maintenance cost
    - Track service history

## ❖ Assignment Module Validations

- ❖ Several validations ensure proper asset assignment.
- ❖ Asset Availability Check
  - ❖ The asset must be Available before assignment.
  - ❖ If the asset is already in use, the system checks existing assignments.
  - ❖ If an active assignment exists, the system prevents reassignment.
  
- ❖ Assignment Date Validation
  - ❖ Assignment Date cannot be a future date.
  - ❖ Expected Return Date must be after the Assignment Date.
  - ❖ Actual Return Date is automatically recorded when returning the asset.
  
- ❖ Return Status Validation
  - ❖ An assignment can only be marked returned if the status is:
    - ❖ Assigned or Overdue.
  - ❖ If the asset is already returned, the action is blocked.

## ❖ Maintenance Module Validations

### Asset Eligibility Check

- ❖ Maintenance can be scheduled only if the asset status is:
  - ❖ Available or In Use.

- ❖ Maintenance is not allowed for:
  - ❖ Retired assets
  - ❖ Disposed assets
  
- ❖ Maintenance Status Flow
  - ❖ Maintenance follows a strict workflow:
    - ❖ Planned → In Progress → Completed
    - ❖ Alternative flow:
      - ❖ In Progress → Cancelled
      - ❖ Invalid transitions are blocked.
  
- ❖ Service Date Validation
  - ❖ Service Date can be future for planned maintenance.
  - ❖ If status is completed, the service date must be past or present.
  - ❖ Next service date must be after service date.
  
- ❖ Cost Validation
  - ❖ Maintenance cost must be greater than or equal to zero.
  - ❖ Cost value 0 indicates warranty service or free maintenance.

## Cross Module Validations

- ❖ **Assignment Return**

- ❖ When an asset is returned:
- ❖ Asset status automatically changes to **Available**.

#### ❖ **Maintenance Completion**

- ❖ If maintenance is completed:
- ❖ Asset status returns to **Available**.

#### ❖ **Asset Deletion Rules**

- ❖ An asset cannot be deleted if:
  - It has active assignments
  - It has pending maintenance



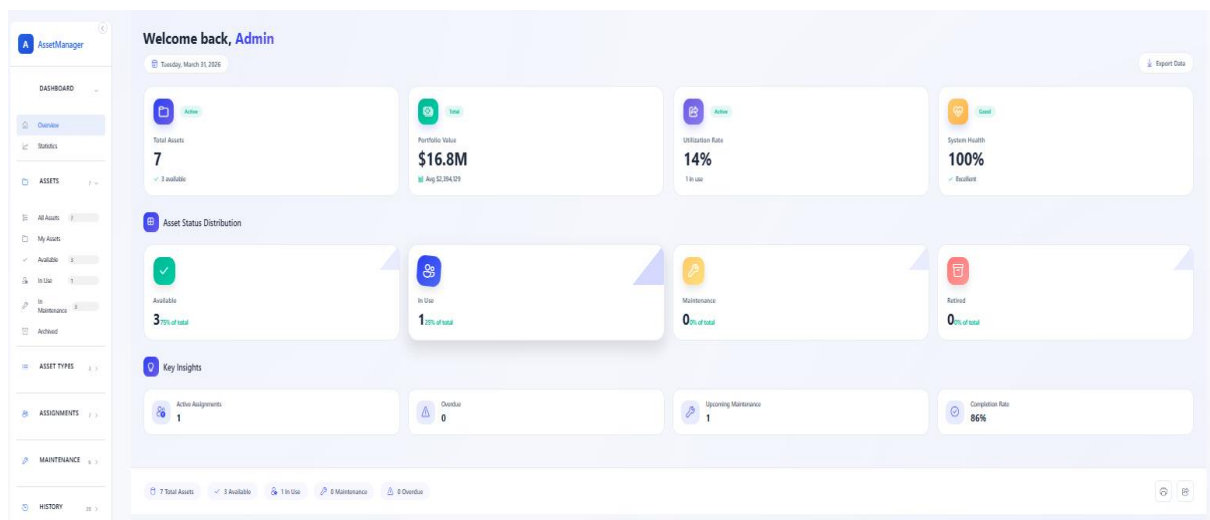
- Asset Creation
- Asset updates
- Asset deletion
- Asset assignment
- Asset return
- Maintenance scheduling
- Maintenance completion

❖ This provides a complete audit trail.

## ❖ Dashboard and Analytics:

The system includes a dashboard that provides an overview of asset statistics.

❖ Dashboard information includes:



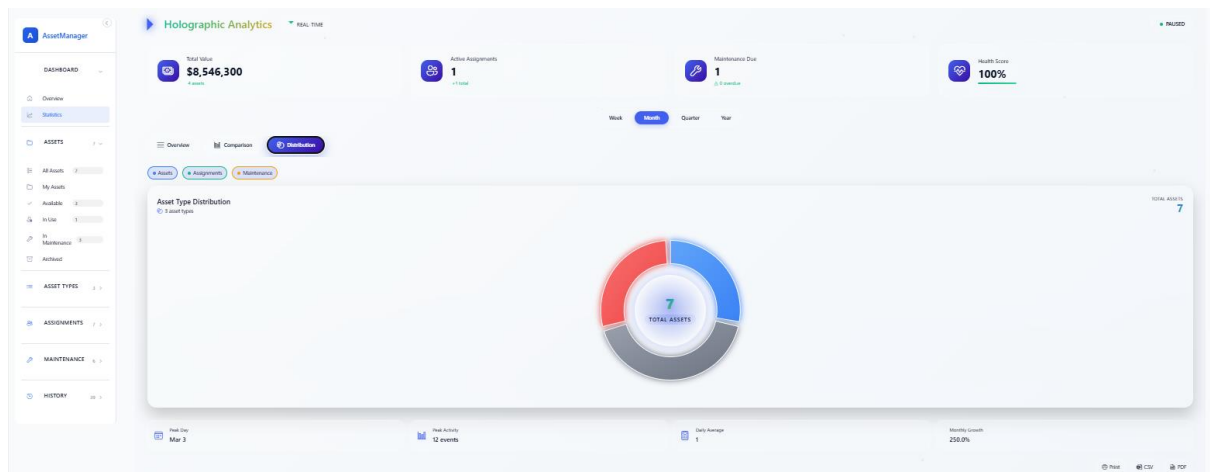
- Total Assets
  - Available Assets
  - Assigned Assets
  - Assets in Maintenance
- Portfolio Value (Total Purchase Price)
- Utilization Rate (%)

- System Health Score (%)
- Upcoming Maintenance (next 7 days)

## ❖ Charts and Data Visualization

Three chart types are used in the dashboard.

### ❖ Donut Chart



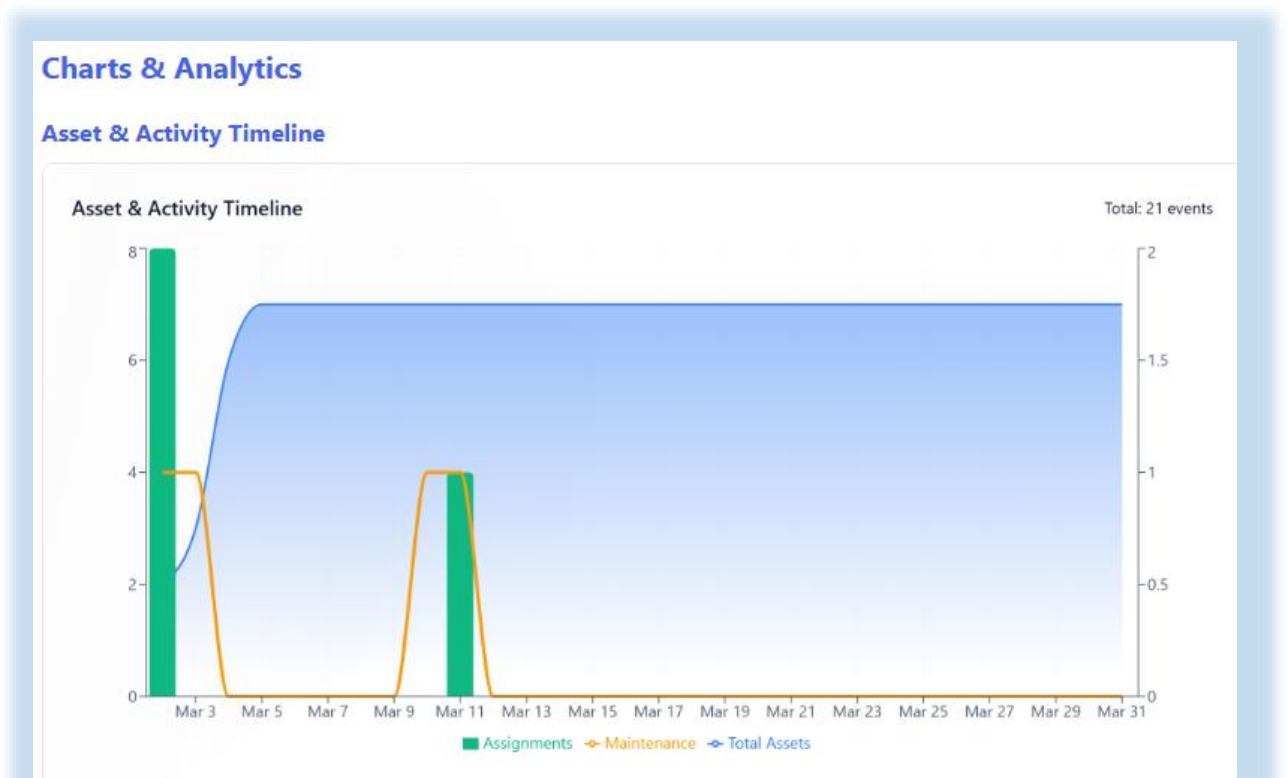
- ❖ Displays asset status distribution.
- ❖ Example: Available vs In Use vs Maintenance.
- ❖ Hover to see exact counts and percentages
- ❖ Click on legend to filter data

## ❖ Bar Chart



- ❖ Displays asset statistics such as asset types or maintenance counts.
- ❖ Shows comparison between different categories

## ❖ Asset & Activity Timeline (Combination Chart)



❖ Shows asset activity trends over time.

❖ Examples:

- ❖ Assignments over time
- ❖ Maintenance frequency
- ❖ Toggle between different data series (Assets/Assignments/Maintenance)
- ❖ Filter by time range (Week/Month/Quarter/Year)

## ❖ Export Functionality

- ❖ Export data as CSV from any view
- ❖ Export charts as PDF
- ❖ Print dashboard with charts
- ❖ Share dashboard summary via Web Share API

## ❖ Export Options

- ❖ Assets list → CSV
- ❖ Assignments → CSV
- ❖ Maintenance records → CSV
- ❖ Charts → PDF/Print
- ❖ Dashboard summary → Share/Copy