SEFORAA · SERI EDUKASI · LEARNING SERIES

Pengantar Konsep

Concept Primer

Asset Maintenance & Management

PT Seia Fortuna Abadi · tambang batubara open-pit
open-pit coal mine

Seluruh data dalam demo ini fiktif

Nama perusahaan, fasilitas dan lokasi, jenis dan jumlah transaksi, nama pelanggan, nama vendor, nama orang, nomor dokumen, hingga laporan yang dipakai dalam demo ini adalah data fiktif yang dibuat hanya untuk keperluan demo aplikasi. Kemiripan dengan perusahaan atau orang nyata hanyalah kebetulan.

All data in this demo is fictitious

The company name, facilities and locations, transaction types and amounts, customer names, vendor names, people, document numbers and the reports used in this demo are fictitious data created only to demonstrate the software. Any resemblance to real companies or people is coincidental.

Edisi November 2026 · November 2026 edition · SEFORAA

Cara membaca dokumen ini · How to read this document

Dokumen ini adalah **pengantar konsep** untuk calon pengguna yang akan mencoba demo SEFORAA Asset Maintenance & Management. Bacalah lebih dulu sebelum membuka **Panduan Pengguna**. Anda tidak perlu paham perawatan aset; dokumen ini menjelaskan istilahnya dari awal.

Kolom kiri berbahasa Indonesia (versi yang berlaku); kolom kanan terjemahan bahasa Inggris dengan isi yang sama.

Data fiktif

Semua data dalam demo ini fiktif: nama perusahaan, fasilitas, jenis dan jumlah transaksi, pelanggan, vendor, orang, nomor dokumen, dan laporan. Dibuat hanya untuk mendemonstrasikan aplikasi.

This document is a **concept primer** for prospective users who will try the SEFORAA Asset Maintenance & Management demo. Read it before opening the **User Guide**. You do not need prior knowledge of asset maintenance; the terms are explained from scratch.

The left column is in Indonesian (the authoritative version); the right column is the English translation with the same content.

Fictitious data

All data in this demo is fictitious: company name, facilities, transaction types and amounts, customers, vendors, people, document numbers and reports. It was created only to demonstrate the software.

Daftar isi · Contents

1 Mengapa perawatan aset perlu dikelola · Why asset maintenance needs managing 4

2 Kasus demo: PT Seia Fortuna Abadi · The demo case: PT Seia Fortuna Abadi 5

2.1 Struktur aset sebagai pohon · The asset structure as a tree 5

2.2 Masalah yang diangkat dan cara aplikasi menanganinya · Problems raised and how the application handles them 6

3 Konsep dasar · Core concepts 7

3.1 Jenis perawatan · Types of maintenance 7

3.2 Preventive Maintenance (PM): menurut waktu atau meter · Preventive Maintenance (PM): by time or by meter 7

3.3 RCM: memilih tindakan berdasarkan kegagalan · RCM: choosing actions from failures 8

3.4 Siklus hidup work order · The work order life cycle 8

3.5 Rencana, realisasi, dan biaya · Plan, actual and cost 9

3.6 Persediaan dan pembelian · Inventory and purchasing 9

3.7 Persetujuan · Approval 9

3.8 Indikator kinerja perawatan (konsep) · Maintenance performance indicators (concept) 10

4 Modul aplikasi · Application modules 11

5 Tokoh dan akun demo · Demo characters and accounts 12

6 Isi data demo · What the demo data holds 14

7 Batasan yang perlu diketahui · Limitations to be aware of 15

8 Langkah berikutnya · Next steps 16

BAHASA INDONESIA

1 Mengapa perawatan aset perlu dikelola

Di tambang terbuka, produksi bergantung pada alat berat yang bekerja hampir tanpa henti. Satu dump truck atau excavator yang mati menahan seluruh rantai: muat, angkut, dan pengolahan di plant. Setiap jam berhenti berarti tonase yang tidak terkirim, sementara biaya tetap berjalan.

Perawatan yang tidak dikelola biasanya terlihat sebagai gejala berikut:

- **Perawatan serba mendadak**: kerja terbanyak adalah memperbaiki yang sudah rusak, bukan mencegah.
- **Jadwal terlewat**: servis berkala yang jatuh tempo menurut jam kerja atau kalender tidak diketahui tepat waktu.
- **Suku cadang tidak tersedia** saat dibutuhkan, atau menumpuk padahal tidak dipakai.
- **Biaya tidak terlihat**: tidak jelas berapa biaya satu unit atau satu proyek, dan apakah anggaran terlampaui.
- **Riwayat tersebar** di kertas, spreadsheet, dan ingatan orang, sehingga sulit belajar dari kerusakan berulang.

SEFORAA Asset Maintenance & Management mengumpulkan semuanya dalam satu aplikasi: daftar aset, jadwal perawatan, perintah kerja, stok dan pembelian, sampai laporan.

ENGLISH

1 Why asset maintenance needs managing

In an open-pit mine, production depends on heavy equipment that works almost non-stop. One dump truck or excavator that fails holds up the whole chain: loading, hauling and processing at the plant. Every hour of stoppage is tonnage not delivered while costs keep running.

Unmanaged maintenance usually shows up as these symptoms:

- **Everything is last-minute**: most work is repairing what already failed instead of preventing it.
- **Missed schedules**: services that fall due by working hours or by calendar are not noticed in time.
- **Spare parts missing** when needed, or piling up unused.
- **Invisible cost**: no clear cost per unit or per project, and no view of whether the budget is exceeded.
- **Scattered history** on paper, in spreadsheets and in people's memory, so it is hard to learn from repeated failures.

SEFORAA Asset Maintenance & Management brings all of it into one application: the asset register, maintenance schedules, work orders, stock and purchasing, through to reports.

BAHASA INDONESIA

2 Kasus demo: PT Seia Fortuna Abadi

PT Seia Fortuna Abadi adalah tambang batubara open-pit fiktif, kontraktor penambangan milik sendiri (owner operator), di **Site Muara Fortuna**, Kutai Kartanegara, Kalimantan Timur. Operasi berjalan dua shift per hari, tujuh hari seminggu.

Unsur	Isi
Armada	Excavator, bulldozer, grader, wheel loader, 4 dump truck HD785, water dan fuel truck
Plant	Crusher primer dan sekunder, feeder, conveyor, belt scale
Pendukung	Dewatering pit, workshop, genset, kompresor, kendaraan ringan, bus karyawan
Struktur aset	Site → 6 area → 36 unit → komponen utama
Mata uang	Rupiah

2.1 Struktur aset sebagai pohon

Setiap aset punya induk. Dengan susunan seperti ini, biaya dan riwayat dapat dibaca di tingkat komponen, unit, atau area.

- **SITE-MF** · Site Muara Fortuna
  - **AREA-HAUL** · Area Hauling
    - **DT-103** · Dump Truck Komatsu HD785-7 #3
      - DT-103 Engine · Transmission · Final Drive

ENGLISH

2 The demo case: PT Seia Fortuna Abadi

PT Seia Fortuna Abadi is a fictitious open-pit coal mine, an owner-operator mining contractor, at **Muara Fortuna Site**, Kutai Kartanegara, East Kalimantan. Operations run two shifts a day, seven days a week.

Item	Contents
Fleet	Excavators, bulldozer, grader, wheel loader, 4 HD785 dump trucks, water and fuel trucks
Plant	Primary and secondary crushers, feeder, conveyors, belt scale
Support	Pit dewatering, workshop, gensets, compressor, light vehicles, staff bus
Asset structure	Site → 6 areas → 36 units → main components
Currency	Rupiah

2.1 The asset structure as a tree

Every asset has a parent. With this structure, cost and history can be read at component, unit or area level.

- **SITE-MF** · Muara Fortuna Site
  - **AREA-HAUL** · Hauling Area
    - **DT-103** · Komatsu HD785-7 dump truck #3
      - DT-103 Engine · Transmission · Final Drive

2.2 Masalah yang diangkat dan cara aplikasi menanganinya

Masalah	Cara aplikasi menangani	Modul
Breakdown dump truck menahan produksi	Laporan kerusakan menjadi WO korektif; downtime tercatat per kejadian; riwayat tiap unit dapat ditelusuri	Work order, Asset
Servis berkala per jam kerja (HM) terlewat	PM berbasis meter; pembacaan HM memicu WO otomatis oleh Scheduler; WO terlambat tampil di dashboard	PM, Meter, Dashboard
Suku cadang kritis kosong saat dibutuhkan	Stok per lokasi, titik pesan ulang, Order list, status Wait for material, dan jejak requisition ke PO	Inventory, Requisition, Purchase
Backlog pekerjaan tidak terlihat	Dashboard dan daftar WO dengan filter Open, Overdue, My assignments	Dashboard, Work order
Biaya perawatan melewati anggaran	Biaya WO dihitung dari jam kerja dan part, dibebankan ke cost code, dibandingkan dengan anggaran	Cost code, Budget
Temuan inspeksi tidak ditindaklanjuti	Temuan (citation) dicatat dan ditautkan ke WO; sertifikat pelatihan dan kontrak punya masa berlaku	Inspection, Training, Contract

2.2 Problems raised and how the application handles them

Problem	How the application handles it	Module
A dump truck breakdown holds up production	A breakdown report becomes a corrective WO; downtime is recorded per event; each unit's history can be traced	Work order, Asset
Service by working hours (HM) is missed	Meter-based PM; HM readings trigger WOs automatically via the Scheduler; late WOs show on the dashboard	PM, Meter, Dashboard
Critical spare parts out of stock when needed	Stock per location, reorder point, Order list, the Wait for material status and a requisition-to-PO trail	Inventory, Requisition, Purchase
The work backlog is invisible	Dashboard and WO list with Open, Overdue and My assignments filters	Dashboard, Work order
Maintenance cost exceeds the budget	WO cost is calculated from labor and parts, charged to a cost code and compared with the budget	Cost code, Budget
Inspection findings are not followed up	Findings (citations) are recorded and linked to WOs; training certificates and contracts have validity dates	Inspection, Training, Contract

BAHASA INDONESIA

3 Konsep dasar

3.1 Jenis perawatan

Jenis	Artinya	Contoh
Preventive	Dikerjakan menurut jadwal sebelum rusak, berdasarkan waktu atau pemakaian	Servis 500 HM, inspeksi mingguan
Corrective	Dikerjakan setelah ada kerusakan atau keluhan	Mengganti seal yang bocor
Predictive	Dikerjakan karena kondisi terukur menunjukkan akan rusak	Hasil analisis oli, pengukuran ketebalan
Detective	Dikerjakan karena temuan inspeksi atau pemeriksaan harian	Lampu kerja mati pada pemeriksaan

Di aplikasi, jenis ini terlihat pada kolom **Work category** dan **Origination** (asal WO: PM, Trouble call, Rework, dan lainnya). Perawatan yang sehat didominasi preventive; bila corrective terlalu besar, organisasi sedang "memadamkan api".

3.2 Preventive Maintenance (PM): menurut waktu atau meter

Satu **PM** adalah paket kerja berulang: apa yang dikerjakan (langkah), siapa (craft dan jam), bahan apa (suku cadang), dan kapan jatuh tempo.

- **Menurut waktu (By time)**: jatuh tempo menurut kalender, mis. tiap 30 hari.

ENGLISH

3 Core concepts

3.1 Types of maintenance

Type	Meaning	Example
Preventive	Done on a schedule before failure, by time or by usage	500 HM service, weekly inspection
Corrective	Done after a failure or complaint	Replacing a leaking seal
Predictive	Done because measured condition shows failure is coming	Oil analysis result, thickness measurement
Detective	Done because of an inspection or daily-check finding	Work light found out during a check

In the application these types appear in the **Work category** and **Origination** fields (the origin of a WO: PM, Trouble call, Rework and so on). Healthy maintenance is dominated by preventive work; when corrective work is too large the organisation is "fighting fires".

3.2 Preventive Maintenance (PM): by time or by meter

A **PM** is a recurring job package: what is done (steps), by whom (craft and hours), with what (spare parts) and when it falls due.

- **By time**: due by calendar, e.g. every 30 days.

- **Menurut meter (By meter)**: jatuh tempo menurut pemakaian aset, mis. tiap 500 jam kerja. Pemakaian dibaca dari **meter** aset.

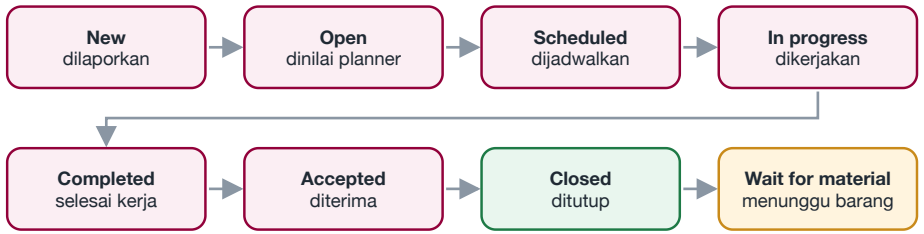
Contoh pada demo: Servis HD785 pada 250, 500, 1.000, dan 2.000 HM; servis PC2000 pada 250, 500, dan 1.000 HM; inspeksi crusher dan conveyor mingguan; riksa uji overhead crane tahunan.

Scheduler (tugas terjadwal di server) memeriksa semua PM secara berkala dan **membuat WO otomatis** bila jatuh tempo, lalu mencatatnya di **W.O. generation log**.

3.3 RCM: memilih tindakan berdasarkan kegagalan

Reliability Centered Maintenance (RCM) bertanya: apa fungsi aset ini, bagaimana ia bisa gagal, apa penyebabnya, apa dampaknya, dan tindakan perawatan apa yang paling masuk akal. Hasilnya adalah daftar tindakan (mis. PM, inspeksi, atau membiarkan sampai rusak) yang terhubung ke suku cadang dan PM. Pada demo, modul **RCM** memuat satu templat contoh.

3.4 Siklus hidup work order



Selain jalur utama ada **Wait for material** (menunggu suku cadang) dan **Reopen** (dibuka kembali). Setiap perubahan status mewajibkan catatan yang tersimpan di **Status log**.

Pemisahan **Completed → Accepted → Closed** disengaja: pelaksana menyatakan selesai, penanggung jawab menerima, lalu WO dikunci untuk laporan biaya.

- **By meter**: due by asset usage, e.g. every 500 working hours. Usage is read from the asset **meter**.

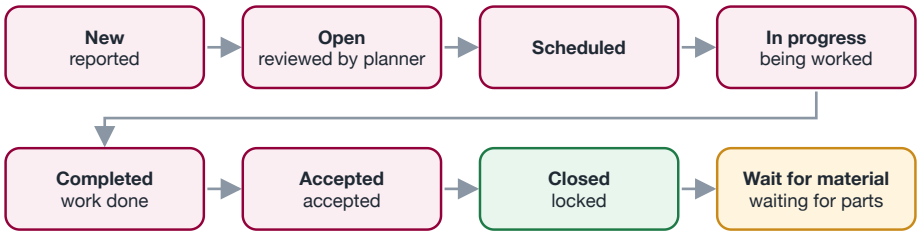
Examples in the demo: HD785 service at 250, 500, 1,000 and 2,000 HM; PC2000 service at 250, 500 and 1,000 HM; weekly crusher and conveyor inspections; annual overhead-crane statutory inspection.

The **Scheduler** (a scheduled server task) checks all PMs periodically and **creates WOs automatically** when they fall due, recording them in the **W.O. generation log**.

3.3 RCM: choosing actions from failures

Reliability Centered Maintenance (RCM) asks: what is this asset's function, how can it fail, what causes it, what is the impact and which maintenance action makes the most sense. The result is a list of actions (e.g. a PM, an inspection or run-to-failure) linked to spare parts and PMs. In the demo, the **RCM** module holds one sample template.

3.4 The work order life cycle



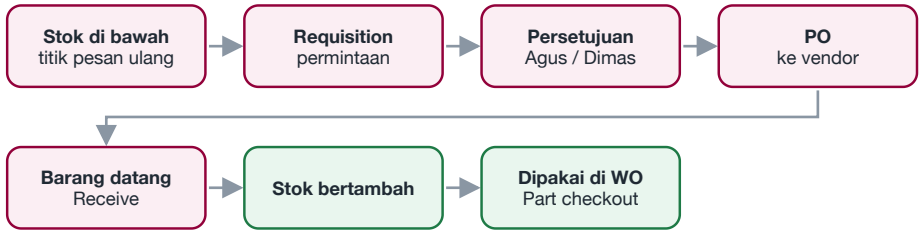
Besides the main path there are **Wait for material** (waiting for spare parts) and **Reopen**. Every status change requires a note stored in the **Status log**.

The **Completed → Accepted → Closed** split is deliberate: the executor says it is done, the owner accepts and the WO is then locked for cost reporting.

3.5 Rencana, realisasi, dan biaya

Setiap WO punya bagian **rencana** (Planned labor, Planned part, Planned downtime) dan bagian **realisasi** (Labor, Part, Downtime). **Biaya WO** dihitung otomatis: jam kerja dikali tarif craft ditambah nilai suku cadang yang keluar dari gudang. Biaya dibebankan ke **cost code**, sehingga dapat dibandingkan dengan **anggaran** (Budget) dan dijumlahkan per aset, per area, atau per proyek.

3.6 Persediaan dan pembelian



Barang yang dibutuhkan WO tetapi kosong membuat WO berstatus **Wait for material** sampai barang diterima.

Setiap pergerakan stok (Receive, Check out, Return, Move, Physical count) tercatat sebagai transaksi, sehingga stok akhir selalu cocok dengan jumlah transaksinya. **Order list** menampilkan item yang stoknya di bawah titik pesan ulang beserta jumlah yang disarankan dipesan.

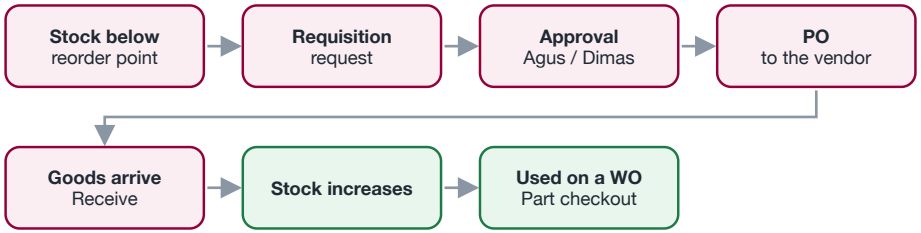
3.7 Persetujuan

Requisition dan PO hanya dapat disetujui oleh orang yang memiliki **wewenang persetujuan**. Di demo, **Dimas** dan **Agus** memilikinya; akun lain ditolak aplikasi bila mencoba. Ini memperlihatkan pengendalian: yang meminta bukan yang menyetujui.

3.5 Plan, actual and cost

Every WO has a **plan** part (Planned labor, Planned part, Planned downtime) and an **actual** part (Labor, Part, Downtime). **WO cost** is calculated automatically: working hours times the craft rate plus the value of spare parts issued from the warehouse. Cost is charged to a **cost code**, so it can be compared with the **budget** and summed per asset, per area or per project.

3.6 Inventory and purchasing



A part needed by a WO that is out of stock puts the WO in **Wait for material** until the goods are received.

Every stock movement (Receive, Check out, Return, Move, Physical count) is recorded as a transaction, so the final stock always matches the sum of its transactions. The **Order list** shows items whose stock is below the reorder point with the suggested order quantity.

3.7 Approval

Requisitions and POs can only be approved by people who hold **approval authority**. In the demo **Dimas** and **Agus** have it; other accounts are refused by the application when they try. This demonstrates control: the requester is not the approver.

3.8 Indikator kinerja perawatan (konsep)

Indikator	Rumus ringkas	Dibaca sebagai
Ketersediaan fisik	(jam kalender – jam downtime) ÷ jam kalender	Seberapa lama aset siap dipakai
MTBF	jam operasi ÷ jumlah kegagalan	Rata-rata jarak antar kerusakan
MTTR	jam perbaikan ÷ jumlah kegagalan	Rata-rata lama memperbaiki
Kepatuhan PM	PM selesai tepat waktu ÷ PM jatuh tempo	Disiplin jadwal preventif
Rasio terencana	jam terencana ÷ total jam kerja perawatan	Perawatan terencana vs mendadak

Catatan

Aplikasi menyimpan semua bahan perhitungan (downtime, jam kerja, riwayat WO, meter) tetapi **tidak menghitung indikator di atas secara otomatis**. Datanya dapat diekspor ke Excel.

3.8 Maintenance performance indicators (concept)

Indicator	Short formula	Read as
Physical availability	(calendar hours – downtime hours) ÷ calendar hours	How long an asset is ready for use
MTBF	operating hours ÷ number of failures	Average time between failures
MTTR	repair hours ÷ number of failures	Average time to repair
PM compliance	PM completed on time ÷ PM due	Discipline of the preventive schedule
Planned ratio	planned hours ÷ total maintenance hours	Planned versus reactive maintenance

Note

The application stores all the inputs (downtime, working hours, WO history, meters) but **does not compute the indicators above automatically**. The data can be exported to Excel.

BAHASA INDONESIA

4 Modul aplikasi

Modul	Fungsi
Dashboard	Ringkasan angka dan grafik perawatan hari ini
Work order	Laporan kerusakan (request), WO, penugasan, status, biaya, papan kanban, laporan WO
Schedule	Roster shift personel dan kapasitas terhadap WO
Asset	Daftar aset berhierarki, meter, riwayat, biaya, komponen
PM	Paket perawatan berulang menurut waktu atau meter
Inventory	Stok per lokasi, transaksi, Order list
Requisition dan Purchase	Permintaan pembelian, persetujuan, PO, penerimaan barang
Contract, Vendor, Contact	Kontrak, pemasok, dan kontaknya
Project, Budget	Proyek dan anggaran per cost code
RCM, Inspection, Training, Document	Analisis kegagalan, inspeksi formal, pelatihan dan sertifikat, SOP
Admin	Pengguna, grup dan desain akses, tampilan (Customize), desain data, scheduler

ENGLISH

4 Application modules

Module	Function
Dashboard	Today's maintenance figures and charts at a glance
Work order	Breakdown reports (requests), WOs, assignment, status, cost, kanban board, WO reports
Schedule	Personnel shift roster and capacity against WOs
Asset	Hierarchical asset register, meters, history, cost, components
PM	Recurring maintenance packages by time or meter
Inventory	Stock per location, transactions, Order list
Requisition and Purchase	Purchase requests, approval, POs, goods receipt
Contract, Vendor, Contact	Contracts, suppliers and their contacts
Project, Budget	Projects and budget per cost code
RCM, Inspection, Training, Document	Failure analysis, formal inspections, training and certificates, SOPs
Admin	Users, groups and access design, Customize, data design, scheduler

BAHASA INDONESIA

5 Tokoh dan akun demo

Demo memakai sembilan akun yang masing-masing mewakili satu peran. **Kata sandi diberikan oleh penyelenggara demo dan tidak ditulis di dokumen ini.**

Akun	Nama	Jabatan	Peran di latihan
`dimas.hartono@seia.demo`	Dimas Hartono	Kepala Teknik Tambang	Membaca dashboard; penyetuju tertinggi
`agus.prasetyo@seia.demo`	Agus Prasetyo	Plant & Maintenance Superintendent	Menerima dan menutup WO; menyetujui requisition dan PO
`rina.wulandari@seia.demo`	Rina Wulandari	Maintenance Planner	Menilai request, merencanakan WO, membaca PM
`hendra.wijaya@seia.demo`	Hendra Wijaya	Supervisor Mekanik	Menjadwalkan mekanik; menelusuri aset
`budi.santoso@seia.demo`	Budi Santoso	Mekanik	Mengerjakan WO: jam kerja, part, meter, downtime
`sari.dewi@seia.demo`	Sari Dewi	Pengawas Produksi (Pit)	Melaporkan kerusakan (New request)
`maya.lestari@seia.demo`	Maya Lestari	Supervisor Gudang	Stok, requisition, penerimaan barang

ENGLISH

5 Demo characters and accounts

The demo uses nine accounts, each representing a role. **The password is provided by the demo organiser and is not printed in this document.**

Account	Name	Position	Role in the exercises
`dimas.hartono@seia.demo`	Dimas Hartono	Mine Manager (KTT)	Reads the dashboard; top-level approver
`agus.prasetyo@seia.demo`	Agus Prasetyo	Plant & Maintenance Superintendent	Accepts and closes WOs; approves requisitions and POs
`rina.wulandari@seia.demo`	Rina Wulandari	Maintenance Planner	Reviews requests, plans WOs, reads PMs
`hendra.wijaya@seia.demo`	Hendra Wijaya	Mechanic Supervisor	Schedules mechanics; browses assets
`budi.santoso@seia.demo`	Budi Santoso	Mechanic	Executes WOs: labor, parts, meter, downtime
`sari.dewi@seia.demo`	Sari Dewi	Production Foreman (Pit)	Reports breakdowns (New request)

Akun	Nama	Jabatan	Peran di latihan
`nadia.putri@seia.demo`	Nadia Putri	Purchasing Officer	Membuat purchase order
`yoga.pratama@seia.demo`	Yoga Pratama	Administrator Sistem	Pengguna, grup, tim, scheduler

Account	Name	Position	Role in the exercises
`maya.lestari@seia.demo`	Maya Lestari	Warehouse Supervisor	Stock, requisitions, goods receipt
`nadia.putri@seia.demo`	Nadia Putri	Purchasing Officer	Creates purchase orders
`yoga.pratama@seia.demo`	Yoga Pratama	System Administrator	Users, groups, teams, scheduler

BAHASA INDONESIA

6 Isi data demo

Data demo mencakup **12 bulan riwayat** dan kondisi "hari ini". Isi ringkasnya:

- **64 aset** (termasuk area dan komponen). **16 PM**. dan sekitar **1.526 pembacaan meter**.
- **739 work order** dengan jam kerja, suku cadang, downtime, dan biaya.
- **115 item** persediaan di beberapa lokasi, **8 vendor**, **19 requisition**, dan **43 PO** dengan status beragam.
- Modul Project, RCM, Inspection, Training, Contract, Document, dan Budget juga berisi data contoh.

Tanggal bersifat relatif

Semua tanggal dihitung dari saat data demo dipulihkan, sehingga pada "hari ini" selalu ada WO yang terlambat, WO yang sedang dikerjakan, dan PO yang menunggu barang. Angka di layar Anda dapat sedikit berbeda dari gambar di panduan.

Demo dipakai bersama

Banyak pengunjung memakai akun yang sama pada saat yang sama. Karena itu setiap latihan di Panduan Pengguna membuat catatan milik Anda sendiri dengan **nama Anda** di kolom Note, dan catatan bawaan hanya dibaca. Data dipulihkan berkala.

ENGLISH

6 What the demo data holds

The demo data covers **12 months of history** and the "today" situation. In brief:

- **64 assets** (including areas and components), **16 PMs** and about **1,526 meter readings**.
- **739 work orders** with labor, spare parts, downtime and cost.
- **115 inventory items** across several locations, **8 vendors**, **19 requisitions** and **43 POs** in various statuses.
- The Project, RCM, Inspection, Training, Contract, Document and Budget modules also hold sample data.

Dates are relative

All dates are calculated from the moment the demo data is restored, so "today" always has late WOs, WOs in progress and POs waiting for goods. The numbers on your screen can differ slightly from the guide figures.

The demo is shared

Many visitors use the same accounts at the same time. That is why every exercise in the User Guide creates a record of your own with **your name** in the Note field, and built-in records are read-only. The data is restored periodically.

BAHASA INDONESIA

7 Batasan yang perlu diketahui

- Aplikasi **tidak menghitung otomatis** indikator seperti ketersediaan fisik, MTBF, dan MTTR; bahan perhitungannya tersedia dan dapat diekspor ke Excel.
- Tidak ada pembuatan **roster atau rotasi kerja** otomatis; jadwal personel diisi manual.
- Tidak ada **pengingat otomatis** masa berlaku sertifikat atau kontrak.
- Angka produksi (tonase) tidak disimpan di aplikasi ini; biaya perawatan tidak otomatis dibandingkan dengan target produksi.

ENGLISH

7 Limitations to be aware of

- The application **does not compute** indicators such as physical availability, MTBF and MTTR automatically; the inputs are available and can be exported to Excel.
- There is no automatic **roster or work-rotation** generation; personnel schedules are entered manually.
- There are no **automatic reminders** for certificate or contract expiry.
- Production figures (tonnage) are not stored in this application; maintenance cost is not compared automatically with production targets.

BAHASA INDONESIA

8 Langkah berikutnya

Buka **Panduan Pengguna** (tersedia dalam bahasa Indonesia dan Inggris). Ia memandu 14 latihan langkah demi langkah dengan layar sebenarnya: dari laporan kerusakan sampai WO ditutup, lalu aset, PM, pengadaan, laporan, dan administrasi.

ENGLISH

8 Next steps

Open the **User Guide** (available in Indonesian and English). It walks you through 14 exercises step by step on the real screens: from a breakdown report to a closed WO, then assets, PM, procurement, reports and administration.