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**JRS ENTERPRISE AND
DEVELOPMENT SOLUTION**

SAP Plant Maintenance (PM) Real-Time Implementation Syllabus

Module 1: Introduction to SAP Plant Maintenance (PM)

- **Overview of SAP PM**
 - Role of SAP PM in Enterprise Asset Management (EAM)
 - Key functions: Inspection, Preventive Maintenance, and Repair
 - Integration with other SAP modules (MM, PP, QM, SD, FICO, HR)
- **Business Processes in Plant Maintenance**
 - Understanding maintenance workflows in manufacturing, oil & gas, utilities, and other industries
 - Centralized vs. decentralized maintenance planning
- **SAP PM in SAP ECC and S/4HANA**
 - Differences between ECC and S/4HANA PM
 - Introduction to Fiori UI and modernized interfaces
- **Real-Time Implementation Context**
 - Project phases: Planning, Blueprinting, Realization, Testing, Go-Live, and Support
 - Role of SAP PM consultants and end-users in implementation

Duration: 4-6 hours

Learning Outcome: Understand the purpose, scope, and real-world applications of SAP PM.

Module 2: Master Data in SAP PM

- **Technical Objects**
 - Functional Locations: Creation, hierarchy, and structuring (spatial, functional, technical)
 - Equipment: Master record creation, categorization, and usage
 - Combination of functional locations and equipment
- **Master Data Configuration**
 - Setting up equipment categories, classes, and characteristics
 - Bills of Materials (BOMs): Equipment BOM, Material BOM, Functional Location BOM
 - Work Centers: Configuration and role in maintenance planning

- **Real-Time Scenarios**

- Mapping organizational assets to SAP PM technical objects
- Managing master data for a manufacturing plant
- Data migration strategies for master data

Duration: 6-8 hours

Learning Outcome: Ability to configure and manage master data for real-time maintenance processes.

Module 3: Maintenance Processing

- **Maintenance Notifications**

- Creating and managing notifications (e.g., malfunction, maintenance request)
- Notification types and customization

- **Maintenance Orders**

- Order types: Breakdown, Corrective, Preventive
- Creating, planning, and releasing maintenance orders
- Work order scheduling, resource allocation, and costing

- **Real-Time Scenarios**

- Processing a breakdown maintenance request
- Scheduling maintenance orders for critical equipment
- Configuring custom order types for specific plants

Duration: 6-8 hours

Learning Outcome: Proficiency in creating and managing maintenance notifications and orders in real-time.

Module 4: Preventive and Predictive Maintenance

- **Preventive Maintenance Planning**

- Time-based, performance-based, and condition-based maintenance plans
- Maintenance strategies: Single-cycle, multiple-counter, and strategy-based plans
- Task lists: General, equipment-specific, and functional location-specific

- **Predictive Maintenance**
 - Integration with SAP Asset Intelligence Network and digital twins
 - Using measuring points and counters for condition monitoring
- **Real-Time Scenarios**
 - Setting up a preventive maintenance plan for a production line
 - Configuring measuring points for predictive maintenance
 - Analyzing failure patterns using machine learning (if applicable)

Duration: 6-8 hours

Learning Outcome: Ability to configure and execute preventive and predictive maintenance strategies.

Module 5: Integration with Other SAP Modules

- **Integration Points**
 - Materials Management (MM): Spare parts procurement, reservations, and inventory
 - Production Planning (PP): Equipment availability for production scheduling
 - Quality Management (QM): Inspection planning and defect recording
 - Sales and Distribution (SD): Service contracts and external maintenance
 - Financial Accounting and Controlling (FICO): Cost tracking and settlement
- **Real-Time Scenarios**
 - Triggering purchase requisitions for spare parts from a maintenance order
 - Integrating maintenance schedules with production planning
 - Cost analysis for maintenance activities

Duration: 4-6 hours

Learning Outcome: Understand and configure integration points for seamless data flow across SAP modules.

Module 6: Configuration and Customization

- **SAP PM Configuration**
 - Configuring organizational structures (maintenance plants, planning plants)
 - Customizing order types, notification types, and control keys
 - Setting up permits and work clearance management (WCM)
- **Advanced Customization**
 - Configuring functional location and equipment hierarchies
 - Defining maintenance strategies and scheduling parameters
 - Custom reports and analytics setup
- **Real-Time Scenarios**
 - Configuring a new maintenance plant in SAP
 - Customizing a notification workflow for specific business needs
 - Setting up Work Clearance Management (WCM) for safety compliance

Duration: 6-8 hours

Learning Outcome: Hands-on skills in configuring and customizing SAP PM for specific business requirements.

Module 7: Mobile and Advanced Technologies in SAP PM

- **Mobile Plant Maintenance**
 - Using SAP Fiori apps for mobile access to work orders and notifications
 - Offline capabilities for field technicians
- **Advanced Technologies**
 - Augmented Reality (AR) and Virtual Reality (VR) for maintenance training
 - Integration with IoT and digital twins for real-time monitoring
 - Machine learning for failure pattern analysis

- **Real-Time Scenarios**

- Implementing mobile access for technicians in a remote plant
- Simulating asset behavior using digital twin integration

Duration: 4-6 hours

Learning Outcome: Familiarity with mobile and advanced technology integrations in SAP PM.

Module 8: Reporting and Analytics

- **Standard Reports**

- Maintenance order reports, equipment history, and cost analysis
- Key Performance Indicators (KPIs): MTTR, MTBF, Equipment Availability

- **Custom Reports**

- Using SAP Query and SAP BW for custom reporting
- Real-time analytics in SAP S/4HANA

- **Real-Time Scenarios**

- Generating a report for equipment downtime analysis
- Creating a custom KPI dashboard for maintenance performance

Duration: 4-6 hours

Learning Outcome: Ability to generate and analyze maintenance reports for decision-making.

Module 9: Real-Time Implementation and Project Execution

- **Implementation Methodology**
 - ASAP and Activate methodologies for SAP PM projects
 - Blueprinting: Gathering business requirements and mapping to SAP PM
 - Realization: Configuration, testing, and data migration
- **Testing and Validation**
 - Unit testing, integration testing, and user acceptance testing (UAT)
 - Testing scenarios for maintenance processes
- **Go-Live and Support**
 - Cutover planning and data migration
 - Post-implementation support and issue resolution
- **Real-Time Scenarios**
 - Conducting a blueprint workshop for a manufacturing client
 - Executing UAT for a maintenance order process
 - Managing go-live for a multi-plant SAP PM implementation

Duration: 8-10 hours

Learning Outcome: Practical skills in executing an end-to-end SAP PM implementation project.

Module 10: SAP PM Certification Preparation

- **Certification Overview**
 - SAP PM Certification (e.g., PLM300, PLM305, PLM310, PLM315, PLM318)
 - Exam structure, syllabus, and preparation tips
- **Hands-On Practice**
 - Working on SAP IDES for real-world scenarios
 - Practice with sample certification questions
- **Real-Time Scenarios**
 - Simulating business processes in SAP IDES
 - Reviewing common implementation challenges and solutions

Duration: 4-6 hours

Learning Outcome: Preparedness for SAP PM certification and practical application of knowledge.

Module 11: Real-Time Projects and Case Studies

- **Project Work**
 - End-to-end implementation of SAP PM for a sample manufacturing plant
 - Configuring maintenance processes for a utility company
 - Integrating SAP PM with IoT for predictive maintenance
- **Case Studies**
 - SAP PM implementation in oil & gas, manufacturing, or chemical industries
 - Lessons learned from real-world SAP PM projects
- **Deliverables**
 - Project documentation (blueprint, configuration document, test scripts)
 - Presentation of project outcomes

Duration: 10-12 hours

Learning Outcome: Hands-on experience in applying SAP PM concepts to real-world projects.