

# INFOSOFT IT SOLUTIONS

## Training | Projects | Placements

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### KANBAN METHODOLOGY TRAINING

#### 1: Introduction to Kanban

- **1 History and Origins of Kanban**
  - Origin in manufacturing
  - Evolution into software development and knowledge work
- **2 Principles of Kanban**
  - Start with what you do now
  - Agree to pursue incremental, evolutionary change
  - Respect the current process, roles, responsibilities, and titles
- **3 Benefits of Kanban**
  - Increased efficiency
  - Better visibility and transparency
  - Enhanced collaboration and communication

#### 2: Core Concepts and Practices

- **1 Visualize the Workflow**
  - Creating a Kanban board
  - Workflow stages and columns
- **2 Limit Work in Progress (WIP)**
  - Understanding WIP limits
  - Implementing WIP limits in your Kanban board
- **3 Manage Flow**
  - Identifying bottlenecks
  - Improving flow efficiency
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- **4 Make Process Policies Explicit**
  - Defining policies and rules
  - Communicating policies to the team
- **5 Implement Feedback Loops**
  - Daily stand-ups
  - Retrospectives and reviews

### **3: Setting Up a Kanban System**

- **1 Designing Your Kanban Board**
  - Basic board setup
  - Advanced board configurations
- **2 Defining Work Item Types**
  - User stories
  - Tasks and defects
- **3 Creating and Managing Backlogs**
  - Prioritizing work
  - Refining the backlog
  - 4: Metrics and Measurement

#### **1 Key Kanban Metrics**

- Cycle time
  - Lead time
  - Throughput
- **2 Cumulative Flow Diagrams (CFD)**
  - Interpreting CFD
  - Using CFD for improvement
- **3 Flow Efficiency**
  - Calculating flow efficiency
  - Improving flow efficiency

## **5: Kanban in Practice**

- **1 Kanban in Software Development**
  - Kanban for Agile teams
  - Integrating Kanban with Scrum ( Scrumban )
- **2 Kanban in Operations and Support**
  - Service delivery with Kanban
  - Incident management and resolution
- **3 Kanban in Project Management**
  - Project tracking and reporting
  - Managing dependencies and risks

## **6: Scaling Kanban**

- **1 Kanban at Scale**
  - Implementing Kanban in large organizations
  - Managing multiple teams and projects
- **2 Enterprise Kanban Frameworks**
  - Portfolio Kanban
  - Flight levels in Kanban

## **7: Continuous Improvement**

- **1 Kaizen and Kanban**
  - Principles of Kaizen
  - Applying continuous improvement in Kanban
- **2 Tools and Techniques for Continuous Improvement**
  - Root cause analysis
  - Process mapping
- **3 Sustaining Kanban Practices**
  - Building a culture of continuous improvement
  - Overcoming resistance to change

## **8: Case Studies and Real-world Applications**

- **1 Case Studies**
  - Successful Kanban implementations
  - Lessons learned from real-world examples
- **2 Best Practices and Pitfalls**
  - Common challenges in Kanban adoption
  - Strategies for successful implementation

## **ADVANCE TOPICS :-**

### **1: Review of Kanban Fundamentals**

- **1 Recap of Kanban Principles and Practices**
  - Evolution from Lean principles
  - Core Kanban practices (visualization, WIP limits, flow management)
- **2 Case Study Review**
  - Analysis of successful Kanban implementations
  - Lessons learned and challenges faced

### **2: Advanced Visualization Techniques**

- **1 Multi-team and Portfolio Level Boards**
  - Scaling Kanban for multiple teams
  - Visualizing dependencies and interactions
- **2 Swimlane Designs**
  - Horizontal and vertical swimlanes
  - Using swimlanes for differentiating work types or teams

### **3: Advanced WIP Limit Strategies;-**

- **1 Dynamic WIP Limits**
  - Adjusting WIP limits based on team capacity and demand
  - Simulation exercises for determining optimal WIP limits
- **2 WIP Limit Policies**
  - Defining policies for handling WIP limit breaches
  - Experimenting with different policy configurations

### **4: Flow Metrics and Analytics**

- **1 Advanced Flow Metrics**
  - Cycle time distribution analysis
  - Monte Carlo simulations for forecasting
- **2 Predictability and Variability Analysis**
  - Using Little's Law in Kanban
  - Analyzing flow data for process improvement
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### **5: Kanban for Portfolio and Enterprise Level**

- **1 Portfolio Kanban**
  - Visualizing and managing multiple projects or initiatives
  - Prioritization techniques across portfolios
- **2 Enterprise Services Planning (ESP)**
  - Integrating Kanban with strategic planning
  - Flight levels and governance in large organizations

## **6: Advanced Lean Principles in Kanban**

- **1 Value Stream Mapping (VSM)**
  - Identifying and eliminating waste
  - Mapping value streams for process optimization
- **2 Kaizen and Continuous Improvement**
  - Advanced techniques for continuous improvement
  - Using A3 problem-solving in Kanban contexts

## **7: Kanban and DevOps Integration**

- **1 Continuous Delivery with Kanban**
  - Implementing Kanban in CI/CD pipelines
  - Visualizing and managing releases
- **2 Kanban Metrics for DevOps**
  - Measuring and optimizing lead time in DevOps environments
  - Integrating feedback loops between development and operations

## **8: Advanced Topics in Lean Kanban**

- **1 Lean Kanban vs. Agile Kanban**
  - Contrasting principles and practices
  - Choosing the right approach for different contexts
- **2 Flow-Based Portfolio Management**
  - Managing capacity and demand at portfolio level
  - Flow-based funding and financial models

## **9: Advanced Case Studies and Applications**

- **1 Complex Systems and Kanban**
  - Applying Kanban in non-software domains (e.g., healthcare, manufacturing)
  - Case studies of Kanban in complex environments
  
- **2 International Kanban Adoption**
  - Cultural considerations in global Kanban implementations
  - Case studies from different industries and regions