



Software Analysis & Development Complete Training Course



AGILE LEADERS
Training Center

Software Analysis & Development Complete Training Course

Course Overview:

In today's rapidly evolving software industry, mastering Software Analysis & Development is critical for delivering high-quality, efficient, and scalable systems. Comprehensive Training in Software Analysis & Development: SDLC, UI/UX, & Data Modeling is designed to equip professionals with the knowledge and skills required to navigate the complexities of System Analysis, UI/UX Development, Software Architecture, Agile Development, and Data Modeling.

This intensive course covers essential aspects of software requirement gathering techniques, Entity Relationship Diagrams ERD, structured programming vs. object-oriented approaches, functional and non-functional requirements, business process modeling, and system documentation techniques. Participants will gain hands-on experience in creating workflow diagrams, designing database schemas, performing risk assessments, and understanding the impact of digital transformation on modern software systems.

By the end of this training, learners will be able to apply best practices in software development, develop software prototypes, analyze system requirements, and implement industry-standard methodologies in real-world projects. This course ensures professionals are prepared to tackle complex projects while aligning with business analysis, IT project management, and system optimization best practices.

Target Audience:

- Software Developers & Engineers
- System Analysts & Business Analysts
- IT Project Managers
- UI/UX Designers
- Database Administrators
- Enterprise Architects
- QA Engineers & Software Testers
- Product Owners & Agile Coache

Targeted Organizational Departments:

- IT & Software Development
- Business Analysis & Process Optimization
- Quality Assurance & Testing
- Product & Project Management



Targeted Industries:

- Technology & Software Development
- Financial Services & Banking
- Healthcare & Pharmaceutical
- E-commerce & Retail
- Government & Defense
- Telecommunications

Course Offerings:

By the end of this course, participants will be able to:

- Analyze functional and non-functional requirements.
- Develop software prototypes and wireframes.
- Implement system architecture design techniques.
- Apply best practices in software engineering.
- Develop Entity Relationship Diagrams ERD for database modeling.
- Optimize software testing and debugging strategies.
- Utilize workflow diagrams for process optimization.
- Conduct IT risk assessments and migration strategies.

Training Methodology:

This course employs an interactive and practical learning approach, ensuring maximum engagement and real-world applicability. Training methodologies include:

- Case Studies Real-world case studies on software failures and successes.
- Hands-on Exercises Developing workflow diagrams, UI/UX prototypes, and ERDs.
- Interactive Discussions Exploring best practices in software architecture.

Course Toolbox:

Participants will have access to:

- Course ebooks & Checklists
- Case Study-Based Learning Materials
- Sample Software Documentation Templates
- Guidelines for UML Diagrams & Wireframing
- Recommended Tools for Software Testing & Debugging

Course Agenda:



Day 1: Introduction to Software Analysis and Development

- **Topic 1:** Overview of Systems Analysis and Development Life Cycle
- **Topic 2:** Role of Systems Analysts and Software Engineers
- **Topic 3:** Understanding Project Selection and Feasibility Analysis
- **Topic 4:** Business Process Management and Automation
- **Topic 5:** Identifying and Gathering Software Requirements
- **Topic 6:** Creating a System Proposal for Stakeholders
- **Reflection & Review:** Evaluating case studies on successful system analysis projects

Day 2: Requirements and Process Modeling

- **Topic 1:** Use Case Analysis and Functional Requirements Development
- **Topic 2:** Data Flow Diagrams and Process Modeling Techniques
- **Topic 3:** Entity Relationship Diagrams and Data Modeling Best Practices
- **Topic 4:** Developing Data Dictionaries and Metadata for Systems
- **Topic 5:** Business Process Improvement and Reengineering Techniques
- **Topic 6:** Analyzing and Validating Requirements for System Design
- **Reflection & Review:** Hands-on practice with modeling methods and review of real-world applications

Day 3: Software Architecture and User Interface Design

- **Topic 1:** System Architecture Design and Client-Server Models
- **Topic 2:** User Interface Design Principles and Usability Testing
- **Topic 3:** Navigation and Layout Best Practices in UI/UX Design
- **Topic 4:** Wireframing and Prototyping Software Applications
- **Topic 5:** Ensuring Accessibility and Compliance in UI Development
- **Topic 6:** Human-Computer Interaction and User Experience Research
- **Reflection & Review:** Evaluating user interface designs through usability testing

Day 4: Database, Program, and Data Storage Design

- **Topic 1:** Transitioning from Logical to Physical Database Design
- **Topic 2:** SQL and Database Normalization Techniques
- **Topic 3:** Object-Oriented Design and UML Diagrams in Development
- **Topic 4:** Program Structure Charts and Code Optimization Strategies
- **Topic 5:** Data Security, Privacy, and Compliance in Software Systems
- **Topic 6:** Testing and Debugging Software Applications
- **Reflection & Review:** Group discussion on database design best practices

Day 5: Implementation Training Course Categories

Topic 1: Software Development Methodologies: Agile, Waterfall, DevOps
 Topic 2: Project Management: Planning, Execution, Monitoring, and Control
 Topic 3: Business Process Management: Analysis, Design, and Improvement
 Topic 4: Quality Management: Planning, Assurance, and Control
 Topic 5: Risk Management: Identification, Assessment, and Mitigation
 Topic 6: Communication and Public Relations: Planning, Execution, and Evaluation
 Topic 7: Finance and Accounting: Planning, Execution, and Evaluation
 Topic 8: Legal and Compliance: Planning, Execution, and Evaluation
 Topic 9: Human Resources: Planning, Execution, and Evaluation
 Topic 10: Environmental and Sustainability: Planning, Execution, and Evaluation
 Topic 11: Governance, Risk and Compliance: Planning, Execution, and Evaluation
 Topic 12: Data Analytics and Data Science: Planning, Execution, and Evaluation
 Topic 13: Security: Planning, Execution, and Evaluation
 Topic 14: Leadership and Program Management: Planning, Execution, and Evaluation
 Topic 15: Legal Training, Ethics, and Contracting: Planning, Execution, and Evaluation
 Topic 16: Maintenance Training and Software Engineering: Planning, Execution, and Evaluation
 Topic 17: Real-world system case studies to provide a holistic learning experience.



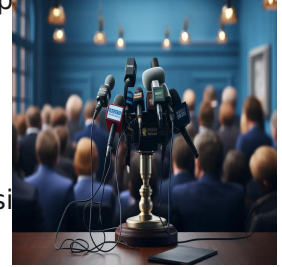
FAQ: Finance and Accounting Training Courses



Agile PM and Project Management Training Courses

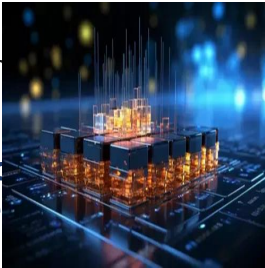


Certified Courses By International Bodies



Communication and Public Relations Training Courses

What specific qualifications or prerequisites are needed for participants before enrolling in the course?



Data Analytics Training and Data Science Courses



Environment & Sustainability Training Courses



Governance, Risk and Compliance Training Courses



Human Resources Training and Development Courses

What is the importance of Entity Relationship Diagrams ERD in system development?

ERDs help visualize database structures, ensuring efficient data storage, reducing redundancy, and optimizing system performance.



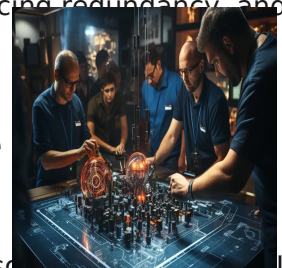
IT Security Training & IT Training Courses



Leadership and Program Management Courses



Legal Training, Ethics, and Contracting Courses



Maintenance Training and Software Engineering Courses

This course stands out by combining theoretical and practical applications of software engineering, UX design, data modeling, and system development life cycles (SDLC). Unlike traditional courses that focus on only one area, this program integrates Agile methodologies, best practices in software engineering, and real-world system case studies to provide a holistic learning experience.



Training Course Categories



Marketing, Customer Relations, and Sales Courses



Occupational Health, Safety and Security Training Courses



Oil & Gas Training and Other Technical Courses



Personal & Self-Development Training Courses



Quality and Operations Management Training Courses



Secretarial and Administration Training Courses



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Training Cities



Accra - Ghana



Amman - Jordan



Amsterdam - Netherlands



Baku - Azerbaijan



Bali - Indonesia



Bangkok - Thailand



Barcelona - Spain



Cairo - Egypt



Cape town - South Africa



Casablanca - Morocco



Doha - Qatar



Dubai - UAE



Geneva - Switzerland



Istanbul - Turkey



Jakarta - Indonesia



Johannesburg - South Africa



Training Cities



Kuala Lumpur - Malaysia



Langkawi - Malaysia



London - UK



Madrid - Spain



Manama - Bahrain



Milan - Italy



Nairobi - Kenya



Paris - France



Phuket - Thailand



Prague - Czech Republic



Rome - Italy



Sharm El-Sheikh - Egypt



Tbilisi - Georgia



Tokyo - Japan



Vienna - Austria



Zanzibar - Tanzania



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Training Cities



**Zoom - Online
Training**

WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.



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