



# الدورة التدريبية الكاملة للاعتراف تحليل وتطوير البرهجات



## الدورة التدريبية الكاملة للاحتراف تحليل وتطوير البرمجيات

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### 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

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

## Day 2: Requirements and Process Modeling

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

## Day 3: Software Architecture and User Interface Design

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

## Day 4: Database, Program, and Data Storage Design

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

## Day 5: Implementation, Maintenance, and Case Study Analysis

- Software Development Methodologies Agile, Waterfall, DevOps Topic 1:
- Transition to the New System and Change Management Topic 2:
- System Deployment Strategies and Migration Techniques Topic 3:
- Post-Implementation System Support and Maintenance Topic 4:
- Evaluating Project Success and Lessons Learned Topic 5:
- Final Case Study Analysis and Project Presentation Topic 6:
- Course wrap-up, key takeaways, and Q&A session Reflection & Review:

## FAQ:

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

No specific prerequisites are required. However, a basic understanding of IT, programming fundamentals, or system analysis is recommended.

How long is each day's session, and is there a total number of hours required for the entire course?

Each day's session lasts 4-5 hours, totaling approximately 20-25 hours of instruction over five days.

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 database performance.

## How This Course is Different from Other Software Analysis Courses:

This course stands out by combining theoretical and practical applications of software analysis, UI/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.



## فئات الدورات التدريبية



HR TRAINING & DEVELOPMENT

دورات إدارة و تطوير الموارد البشرية



دورات إدارة و تحليل البيانات ودورات علم البيانات



دورات إدارة الجودة وتطوير العمليات



الدورات التدريبية في مجال البيئة والاستدامة



دورات التسويق وإدارة علاقات العملاء وإدارة المبيعات



دورات التدريب القانوني والمشتريات والتعاقدات



دورات الاتصال الجماهيري و السياسات والعلاقات العامة



دورات النظم السبراني ودورات تقنية المعلومات



دورات الصيانة ودورات المجالات الهندسية المتنوعة



دورات الصحة والسلامة والأمن المهني



دورات السكرتارية و إدارة المكاتب



دورات الحوكمة وإدارة المخاطر والامتثال



**AGILE LEADERS**  
Training Center

## فئات الدورات التدريبية



دورات معتمدة من قبل هيئات دولية



دورات في مجالات القيادة والإدارة



دورات المهارات الشخصية وتطوير الذات



دورات المحاسبة و التمويل و دورات الإدارة  
المالية



دورات مكتب إدارة المشاريع وإدارة المشاريع  
الرشيقية

## مدن التدريب



اسطنبول - تركيا



أمستردام - هولندا



أنقرة - تركيا



أثينا - اليونان



الرياض - المملكة العربية السعودية



الدوحة - قطر



الدار البيضاء - المغرب



الجبيل - المملكة العربية السعودية



باريس - فرنسا



المنامة - مملكة البحرين



الكويت - الكويت



القاهرة - مصر



براغ - جمهورية التشيك



بانكوك - تايلاند



بالي - جمهورية إندونيسيا



باكو - أذربيجان

## مدن التدريب



جاكرتا - جمهورية اندونيسيا



تيليسي - جورجيا



بوكيت - تايلاند



برشلونة - اسبانيا



روما - ايطاليا



دبي - الامارات العربية المتحدة



جوهانسبرغ - جنوب افريقيا



جنيف - سويسرا



شرم الشيخ - مصر



سيول - كوريا الجنوبية



سان دييغو - الولايات المتحدة  
الامريكية



زنبار - تنزانيا



طوكيو - اليابان



طشقند - اوزبكستان



طرابزون - تركيا



شيكاغو - الولايات المتحدة  
الامريكية

## مدن التدريب



كوالالمبور - ماليزيا



فيينا - النمسا



عن بعد - منصة زووم



عمان - المملكة الأردنية الهاشمية



ماربيا - اسبانيا



لندن - المملكة المتحدة



لانكاوي - ماليزيا



كيب تاون - جنوب إفريقيا



ميلان - إيطاليا



مونترنو - سويسرا



مسقط - سلطنة عمان



مدريد - إسبانيا



نيس - فرنسا



نيروبي - كينيا



ميونخ - ألمانيا

# 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.



**AGILE LEADERS**  
Training Center

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