Arabian Institute For Training

Data Management , Security and Warehousing

INTRODUCTION

- This Data Management, Security and Warehousing training course is designed for professionals and companies that want to take the full advantage of Big Data thrive. As the Big Data phenomenon appeared the companies are relying more and more on adequate Data Analytics and Data Science to properly plan, prepare, react to the business challenges, as well as to innovate the way they are conducting their business and increase the level of service to their customers while at the same time reduce costs and streamline their processes. It has become so widespread that the term Industrial Revolution 4.0 become a household name.
- With Big Data comes the challenge of data management, as just having the data does not suffice, the Data Management is defined as an administrative process that includes acquiring, validating, storing, protecting, and processing required data to ensure the accessibility, reliability, and timeliness of the data for its users. This training course focuses on the need to properly warehouse the data as in the era of big data, a wide variety of data warehousing and security solutions exist, and choosing the right approach is the most difficult decision the companies need to make.

This training course will highlight:

- Operational vs. Decision Support Systems
- Strategic Information from the Data Warehouse
- Significance of Data Management in Big Data era
- Data Security Strategies for Next Generation Data Warehouses
- Extract-Transform-Load (ETL) Process

OBJECTIVES

- This Data Management, Security and Warehousing training course focuses on presenting the delegates with the opportunity to learn how to plan and prepare a data warehousing project, data warehouse architecture and how to safely store, communicate and use the company data.

At the end of this training course, you will:

- Learn how to plan the steps in data warehousing project
- Acquire the knowledge to determine why there is an escalating need for strategic information
- Get acquainted with the fundamental problem of data management and data warehousing
- Learn the strategies of data security

TRAINING METHODOLOGY

- This Data Management, Security and Warehousing training course adopts a problem-based learning approach, in which delegates are presented with a series of real problems drawn from the widest possible range of applications – they range from economy models to supply chain and logistics, from oil and gas to civil engineering, and from production optimization to financial risk assessment. Each problem presents and exemplifies the need for a different modelling or analytical approach. This training course is entirely oriented towards planning, preparing and executing Data Warehousing project, with the focus on Data Management and Data Security.

ORGANISATIONAL IMPACT

- Data warehousing has become a mainstream phenomenon. When the companies properly manage, store and secure their data they gain incredible competitive advantage, however, it is not enough only to collect and store the data and put it under several layers of IT protection, as this approach usually ends up drying out the patience of stakeholders, clients and developers. In theory, an enterprise data warehouse can be extremely valuable to the sponsoring organization, but in practice one cannot be implemented quickly enough or at a cost that company executives consider reasonable. Therefore, data needs to be properly managed, with adequate security features that will adequately protect the data, making it at the same time easily available for the benefit of the company, and stored (warehoused) in the enterprise data warehouse.

This training course will highlight:

- How to adequately manage the company data
- What are the main differences between traditional and agile software development?
- Standard and modern data security issues and measures
- How to determine if you can trust your data
- Modern approaches to Big Data problem solving and implementation in different fields

PERSONAL IMPACT

- The delegates will learn from the experiences of real projects, get the insight into the success stories, problems and even failures in order to be able to avoid mistakes and harness the lessons learnt from companies that have successfully implemented data management, security and warehousing projects.

The delegates will acquire:

- Big Data Mining Technology and Techniques
- Enterprise Database Warehouse Project Steps
- Challenges with Implementing Data Security Strategies to Protect Data
- Knowledge of Data Warehousing Building Blocks
- Introduction to Trends in Data Warehousing

WHO SHOULD ATTEND?

- This Data Management, Security and Warehousing training course has been designed for professionals whose jobs involve the data gathering, data analysis, decision making.

  This training course is suitable to a wide range of professionals but will greatly benefit:

- Systems Analysts
- Programmers
- Data Analysts
- Database Administrators
- Project Leaders
- Software Engineers
- Managers
- Any Professional involved in Data Analytics

Course Outline

Agile Enterprise Data Warehousing

- Agile Manifesto
- The Scrum Method
- Extreme Programming Approach
- Lean Software Development
- Sources for Data Warehousing Standards

Data Security Strategies

- How to determine if you can trust your data?
- ISO Standard ISO/IEC 17728
- EU General Data Protection Regulation (GDPR)
- Protecting the Data Warehouse
- The Lifecycle of a Dataset

Data Warehouse: The Building Blocks

- Data Defining Features
- Data Warehouses and Data Marts
- Data Warehouse Components Overview
- Dimensional Analysis of Data

Data Warehouse: Architecture and Infrastructure Requirements for Data Warehousing

- Hardware and Operating Systems
- Database Software
- Automation of Warehousing Tasks
- Data Warehouse Architecture
- Business Conceptual Model
- Logical Data Model
- Physical Data Model

Data Management, Security and Warehousing Implementation

- Data Extraction, Transformation, and Loading
- Data Design and Data Preparation-data Dimensional Modeling
- Key Elements of Data Quality
- Matching Information with the User
- Analytical Processing (OLAP)
- Big Data Processing in Cloud Environments

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