

BUSINESS INTELLIGENCE & DATA WAREHOUSE TRAINING COURSES & CERTIFICATION

Knowledge Base (K-Base) with joint collaboration with Open University Malaysia is offering in-depth business intelligence & data warehousing public courses. With Open University access to more than 80 locations throughout Malaysia, these courses will be offered on regularly monthly basis. Upon completion of the courses, a Certification of Completion will be offered by Open University Malaysia. Participants will be also eligible to sit for international Business Intelligence examination to seek recognised Certificate of Business Intelligence Professional (CBIP).

The CBIP certificate is jointly offered by The Data Warehouse Institute (TDWI) which is based in Seattle, USA and Institute of Certification of Computing Professionals (ICCP) which is also based in Illinois, USA.

With certification, Data Warehouse Practitioners can be assured of high paying Data Warehouse/ Business Intelligence jobs while enjoying job recognition. All our trainings are normally conducted either as public scheduled courses or onsite.

DATA WAREHOUSING AND BUSINESS INTELLIGENCE COURSES

The following are the Data Warehousing and Business Intelligence courses offered:

- Technical Courses
 - Data Warehousing Concepts, Fundamentals & Architecture (3 days)
- Business Awareness Courses
 - Introduction to Business Intelligence training for Executives and Manager (1 day)

TRAINING METHODOLOGY

- The emphasis is interactive learning by facilitation and practical hands-on exercise.
- Interactive group exercises and active participation
- Business games through group learning
- Interactive workshop format and solution presentation
- Sharing of real-life experience via case studies on 'how to' do it.

ABOUT CERTIFICATION OF BUSINESS INTELLIGENCE PROFESSIONAL (CBIP)

The **Certified Business Intelligence Professional - Practitioner Level** is awarded when a person passes the following three ICCP Examinations at the 50% or higher score: CORE Information Technologies Examination, Data Warehousing, plus one of I.T. Management (Leadership and Management track), Business Information Systems (Business Analytics Track), Data Management (Data Analysis & Design Track), Systems Development (Data Integration Track), Systems Security or Database Administration (Administration & Technology Track).

The **Certified Business Intelligence Professional - Mastery Level** is awarded when a person passes the following three ICCP Examinations at the 70% or higher score: CORE Information Technologies Examination, Data Warehousing, plus one of I.T. Management (Leadership and Management track), Business Information Systems (Business Analytics Track), Data Management (Data Analysis & Design Track), Systems Development (Data Integration Track), Systems Security or Database Administration (Administration & Technology Track).

Note: A joint certification is issued by ICCP and the TDWI: The Data Warehousing Institute

Each exam contains 110 questions and you are given 1.5 hours to complete each one. You will receive your score and a performance profile immediately after testing. The examination cost about USD 350.00. The examination will be proctored by Open University through collaboration with ICCP

BUSINESS INTELLIGENCE & DATA WAREHOUSING CONCEPTS, FUNDAMENTALS & BEST PRACTICE IMPLEMENTATION

DURATION

- ❖ 3 days with workout sessions

WHAT WILL YOU LEARN

This Business Intelligence & Data Warehouse course is designed to answer questions such as the following:

- ❖ Basic concepts of business intelligence and data warehousing
- ❖ Industry terminology
- ❖ Critical success factors & risks
- ❖ Business intelligence applications, uses and users
- ❖ Data warehousing & business intelligence development processes
- ❖ Culture, politics & organizations
- ❖ Best practices
- ❖ Industry trends
- ❖ Basic architectural concepts for business intelligence and data warehousing
- ❖ Industry terminology
- ❖ Hub-and-spoke, federated, and independent architectures
- ❖ Top-down, bottom-up, and hybrid data warehousing methodologies
- ❖ Dependencies between data warehousing architecture and development methodology
- ❖ How to assess the cost and value implications of various architectures
- ❖ How to assess the time-to-delivery implications of various methodologies
- ❖ Project management implications of various approaches
- ❖ How to determine the best-fit architecture and methodology for your data warehousing program
- ❖ Best practices
- ❖ Industry trends

WHO SHOULD ATTEND?

- ❖ Business Intelligence or Data warehousing program and project managers
- ❖ Data Warehouse Developers and Consultant
- ❖ Data Architects
- ❖ Anyone who participates in making architecture and methodology decisions for data warehousing and business intelligence
- ❖ Anyone who needs to understand the differences between various data warehousing architectures and methodologies

COURSE CONTENTS

I. BUSINESS INTELLIGENCE & DATA WAREHOUSING OVERVIEW

- Overview
- Typical uses

II. DEFINITION, ARCHITECTURE AND CONCEPTS

- Enterprise Data Model
- Operational vs. historical data
- Extract Transform Load (ETL)
- Data Cleansing
- Metadata
- Data warehouse vs. Data mart
- Data mining
- OLAP vs. OLTP
- Logical design vs. Physical design
- Normalization vs. Denormalization
- Referential constraints

III. DATA MODELLING OPTIONS

- Entity model
- Star schema
- Snowflake schema

IV. DIMENSIONAL MODELLING DEVELOPMENT LIFE CYCLE

- Requirements analysis
- Requirements gathering
- Requirements validation
- Requirements modelling
- Schema design
- Project definition
- Warehouse design

- Implementation
 - Follow-up and review
- V. DIMENSIONAL MODELLING DESIGN**
- Overview
 - Metadata properties
 - Star schema
 - Snowflake schema
 - Cubes
 - Measures and facts
 - Attributes and relationships
 - Dimension
 - Hierarchies
 - Role-playing dimensions
 - Joins
 - Summary tables and aggregation
 - Exercises
- VI. CASE STUDY**
- Project definition and scoping
 - Specify the requirements
 - Specify the grain (e.g., fact table types)
 - Specify the dimensions (e.g., handling slowly changing dimensions)
 - Specify the facts (e.g., conformed facts)
- VII. IMPLEMENTATION OPTIONS**
- Overview
 - Top down
 - Bottom up
 - Sizing
 - Cleaning
 - Populating the data warehouse
- VIII. EXTRACT, TRANSFORM, LOAD (ETL) TERMS AND CONCEPTS**
- Options
 - Extraction options
 - Transformation options
 - Loading options
 - Change Data Capture and publishing
 - Staging areas
- IX. EXTRACTING**
- Logical-to-physical data mapping
 - Disparate (heterogeneous) data sources
 - Extracting changes data – delta or other
- X. DATA CLEANING AND CONFORMING**
- Data quality criteria
 - Design methods and alternatives
 - Cleaning deliverables

- Conforming dimension tables
- Conforming fact tables
- XI. DIMENSION TABLE DELIVERY**
 - Dimension table structure
 - Surrogate key generation
 - Dimension table grain
 - Flat (denormalized) or snowflake?
 - Data and time dimensions
 - 'Big' vs. 'small' dimensions
 - Dimensional roles
 - Dimensions as sub-dimensions
 - Degenerate dimensions
- XII. SLOWLY CHANGING DIMENSIONS**
 - Type 1
 - Type 2
 - Type 3
 - Hybrid
 - Late arrivals
- XIII. MULTIVALUED DIMENSIONS**
 - Definition
 - Bridge tables
- XIV. FACT TABLE DELIVERY**
 - Fact table structure
 - Referential integrity (RI)
 - Surrogate key derivation and flow
 - Fundamental grain
 - Transaction fact tables
 - Factless fact tables
 - Periodic snapshots
 - Accumulating snapshots
- XV. FACT TABLE LOAD CONSIDERATIONS**
 - Index management
 - Partition management
 - Updates, deletes and inserts
 - Recovery
 - Summary tables
 - Parallelism
- XVI. DATA WAREHOUSE PERFORMANCE DESIGN**
 - Materialized views
 - Large concurrent reports
 - Short running queries
 - Long running queries
 - Random queries
 - Occasional updates

- On-line utilities
- Index options
- Partitioning and parallelism (e.g., LOADs)

XVII. PHYSICAL DESIGN CONSIDERATIONS

- Denormalization
- Index choices
- Data placement
- Free space
- Summary tables
- Data compression

XVIII. INTRODUCTION TO DW & BI SOFTWARE

- Choosing the right BI Software
 - Dashboard/OLAP
 - Performance Management
 - Report Writing tools
 - ETL Tools
 - Data Mining & Statistical Tools
- Strength and Weakness
- Software Evaluation Toolkit

INTRODUCTION TO BUSINESS INTELLIGENCE FOR EXECUTIVES AND MANAGERS

Business Intelligence is important and is rapidly becoming a major source for organizations to achieve competitive advantage in a fierce competitive market place. But most Business Intelligence training conducted in the market is very technical in nature. Executives and Project Managers need to know the fundamentals on Business Intelligence projects in terms of pre-requisite, resources, timeline, costing and lessons learned before embarking one.

DURATION

- ❖ 1 day

WHAT YOU WILL LEARN

- ❖ Basic concepts of business intelligence and data warehousing
- ❖ Industry terminology
- ❖ Critical success factors & risks
- ❖ Business intelligence applications, uses and users
- ❖ Data warehousing & business intelligence development processes
- ❖ Culture, politics & organizations
- ❖ Costing mechanics
- ❖ Best practices
- ❖ Industry trends

WHO SHOULD ATTEND

This course is intended for business and technical managers and project sponsors who may be involved in the process of designing and implementing a business intelligence application or data warehouse. It is also for those who just need to understand what is involved in managing either a business intelligence or data warehouse project.

ABOUT ICCP

Since its founding in 1973, the Institute for Certification of Computing Professionals (ICCP) has dedicated itself to the establishment of high professional standards for the computer industry. Under the direction of our Board of constituent societies and affiliate societies that promote our certification programs, we actively promote these standards by offering the only broadly applicable and internationally recognized certification program in the profession.

By offering certification in two major professional designations -- Certified Computing Professional (CCP) and Associate Computing Professional (ACP) -- the ICCP has helped to define and raise the standards of our industry. And, in addition we have established new and specialized professional certificates (such as the CBIP and CDMP and ISA) with the goal of creating a high uniform standard for computer knowledge and expertise, the ICCP examinations provide a practical means of assessment and achieving professional recognition in particular areas of expertise through the use of many computing specializations and programming language exams.

ABOUT THE DATA WAREHOUSE INSTITUTE (TDWI)

TDWI, a division of 1105 Media, is the premier provider of in-depth, high-quality education and research in the business intelligence and data warehousing industry. Starting in 1995 with a single conference, TDWI is now a comprehensive resource for industry information and professional development opportunities. TDWI sponsors and promotes quarterly World Conferences, regional seminars, onsite courses, a worldwide Membership program, business intelligence certification, resourceful publications, industry news, an in-depth research program, and a comprehensive Web site: www.tdwi.org

TESTIMONIALS

What are our clients and partners saying about our Data Warehouse training:

On a personal note, this is the first time I attended a course where various concepts, architectures and methodologies were presented and discussed in quite details to help ensure a successful implementation of a Data Warehouse. I could see from the lively interaction in the class that the deliberation was interesting and thought provoking, while hands-on exercises were also effective to further strengthen our knowledge. We had also learned how the content would be applied in our company's context.

I conclude that this training/course is highly valuable! And based on the course feedback, I will consider KnowledgeBaze again for sure when any opportunity knocks.



CHE ABDUL RAHIM CHE AHMAD
Program Director
Enterprise Data Warehouse and Business Intelligence

All our participants enjoyed the Data Warehouse training. The feedback is overwhelming. This is important to the buyers of Data Warehouse to know the strength and weakness of architectures, solution and products. The can result major cost savings for our clients.

Ahmad Sanusi Husain
Managing Director
GlobalPro Training & Development

