ICDL Insights

BIG DATA

This module introduces big data, a term which relates to the management and analysis of sets of data that are typically too large for traditional data-processing software.

Most businesses and organisations deal with large volumes of data on a day to day basis, but is the potential of this data being fully exploited? Big data can be analysed for insights that lead to better decisions and strategic business initiatives.

This module is suitable for a wide range of candidates; for example, non-technical professionals who wish to build and demonstrate an understanding of Big Data, facilitating engagement with their technical colleagues or their suppliers, or students who wish to add general technical knowledge to sector-specific or general studies.

Build an understanding of the key concepts, and potential of big data

The Big Data module is part of ICDL Insights, which addresses the requirement for current and future business managers to develop an understanding of trending and emerging technology.

Main learning outcomes

The Big Data module consists of elearning followed by a brief certification test. Together, these components deliver a short, focused professional development solution. On completion, candidates will be able to:

- understand the term big data and its evolution, and recognise drivers behind its expansion

- recognise key aspects of big data relating to storage technologies, analysis, and visualisation

- recognise examples of big data implementation in a range of sectors

- identify considerations for adoption of big data, including investment, practical challenges, business potential, and ethical issues

- recognise steps for exploiting big data in a specific scenario or situation

Why certify with ICDL?

- ICDL certification is internationally recognised by employers and institutions.

- ICDL Insights modules combine cutting-edge e-learning with a brief certification test to demonstrate your mastery of the relevant concepts and good practice.

- ICDL Insights modules can be coupled with more comprehensive, skills-focused modules to build a profile of skills, knowledge, and competences that are relevant to your career.

- ICDL syllabus content is vendor-independent so that skills, knowledge, and competence are transferable.

Module Overview	
Category	**Content**
What is Big Data	• Definition of big data • Key stages in the evolution of big data. • Key characteristics of big data like: volume, velocity, variety, variability, veracity, value • Trends driving the expansion of data like: online, consumer and organisational actvity, IoT • Potential of big data for organisations
The Big Data Environment	• Common big data storage techniques and approaches to big data analysis • Common approaches to big data visualisation
Big Data in Practice	• Approaches to implementing big data in a variety of sectors
Big Data Adoption	• investment in resources and competences • Challenges such as data quality and consistency, system compatibility • Potential of providing big data as a service, selling analysis • Ethical considerations such as governance, data protection • Steps for exploiting big data in a given scenerio