



Certified Internet
Web Professional

Lesson 1: Introduction to IT Business and Careers



Lesson 1 Objectives

- Define Information Technology (IT) job roles
- Review career opportunities in the IT industry
- Describe the importance of successfully explaining technical issues to non-technical audiences
- Identify technology adoption models
- Describe business ontological models and data models
- Review the importance of adhering to standards during software, hardware and Web development

Information Technology (IT)

- Information Technology (IT) – refers to all aspects of managing and processing information
- Computer departments in most businesses are referred to as IT departments
- IT departments deal with:
 - Computer technologies and services
 - Telecommunication technologies and services
 - Networking technologies and services

IT Job Roles

- Web site designer
- Web application developer
- Web architect
- Mobile application developer
- Web site analyst
- Web site manager
- Database administrator/specialist
- Server administrator
- Network engineer
- Security manager
- Security analyst/consultant
- SEO analyst
- Web marketing manager
- Blog manager
- PC and mobile-device repair technician
- Help desk technician

Conducting Job Searches

- Participating in on-campus interviews
- Searching want ads
- Visiting employment agencies/employment placement services
- Attending job/career fairs
- Volunteering
- Seeking part-time work
- Networking (socially)
- Using an executive search firm
- Mailing cover letters and résumés to companies
- Applying in person
- Entering résumés electronically or posting them to the Web
- Using Internet technology to conduct job searches

Using the Internet to Conduct Job Searches

- Use a variety of Internet search engines to search for information about career opportunities in the IT industry
- Enter keywords to narrow your search to specific job types, and retrieve available job listings that relate to your career goals

Building a Personal Network

- Network (socially) with business associates and other people who may be able to provide job leads
- Professional networking sites include:
 - LinkedIn (*www.linkedin.com*)
 - Spoke (*www.spoke.com*)
 - ZoomInfo (*www.zoominfo.com*)
 - Jigsaw (*www.jigsaw.com*)

Creating a Résumé

- Formatting a résumé:
 - Create using a word-processing program
 - Use formatting to increase visual appeal
 - Recipient needs same word-processing program to be able to read résumés
- Text format résumés:
 - Contain little formatting
 - Intended for keyword-searchable résumé databases and applicant tracking systems
- RTF résumés:
 - Incorporate basic formatting techniques
 - Can be read by many different programs on many different platforms

Creating a Résumé (cont'd)

- PDF résumés:
 - Compatible across all computer platforms
 - Not vulnerable to viruses
 - Need PDF software
- HTML résumés:
 - Posted as Web pages or sent as HTML-based e-mail messages
 - Retain the formatting characteristics of a word-processing file

Education and IT Careers

- University degrees are available in:
 - Computer science
 - Computer engineering
 - Management information systems
- Employers are also looking for:
 - Interpersonal skills
 - Business skills
 - Project management skills

Education and IT Careers (cont'd)

- Importance of continuing education
- Obtain certifications in:
 - CIW
 - A+
 - Network+
 - Security+

Technical Concepts and Training

- Communicating technical issues to end users
- Justifying IT-related expenses to management
- Understanding problems and concerns of end users
- Providing clear solutions
- Remembering the ROI affect of IT decisions
- Presenting technical data clearly so that managers understand the information and can make informed decisions

Technology Adoption Models

- Paradigm shift – a change from one way of thinking to another
- Moore's Law – an analogy for advances in technological innovation
- Technology adoption life cycle – the degree to which members of a population will adopt or accept a new product or innovation
- Diffusion of innovation – early adopters and the early majority have different expectations of a product

Business Modeling

- Ontology – the study of how a particular knowledge domain, or system, is organized
- Business ontology – describes the flow of information through a business hierarchy
- Ontology and IT
- Web Ontology Language (OWL)

Data Modeling

- Data modeling – determines the requirements that a database must fulfill in order to function properly for an organization
- Data modeling steps:
 - Planning and analysis
 - Conceptual design
 - Logical design
 - Physical design
 - Implementation

The Importance of Standards

- Standards help govern the ease with which information can be exchanged and understood between people, businesses and systems
- International Organization for Standardization (ISO) 9000
- World Wide Web Consortium (W3C)
- Internet Engineering Task Force (IETF)
- Institute of Electrical and Electronics Engineers (IEEE)
- Telecommunications Industry Association (TIA)

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