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Introduction to systems analysis and design

Topic 1

ICT284 Systems Analysis and Design

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About this topic

In the first topic, we'll discuss what information systems are and how they are used in organisations, and how they are developed through a system development life cycle (SDLC). We'll discuss the role of the systems analysist and other stakeholders in the SDLC, and look briefly at some different ways in which the SDLC can be approached. We'll conclude with an example illustrating all of the system development core processes that we will cover in the unit, and the various models, techniques and diagrams that we will use.

Unit learning outcomes addressed in this topic

1. **Explain how information systems are used within organisations to fulfil organisational needs**
2. **Describe the phases and activities typically involved in the systems development life cycle**
3. **Describe the professional roles, skills and ethical issues involved in systems analysis and design work**
4. Use a variety of techniques for analysing and defining business problems and opportunities and determining system requirements
5. Model system requirements using UML, including use case diagrams and descriptions, activity diagrams and domain model class diagrams
6. Explain the activities involved in systems design, including designing the system environment, application components, user interfaces, database and software
7. Represent early system design using UML, including sequence diagrams, architectural diagrams and design class diagrams
8. Describe tools and techniques for planning, managing and evaluating systems development projects
9. Describe the key features of several different systems development methodologies
10. Present systems analysis and design documentation in an appropriate, consistent and professional manner

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Topic learning outcomes

After completing this topic you should be able to:

- Explain what an information system is
- Describe the various job titles and roles associated with analysis and design work
- Appreciate the social responsibilities of analysts and designers
- List some of the stakeholders in IS development
- Identify the phases of the systems development life cycle (SDLC) and their purposes
- Explain what a system development methodology is
- Recognise some of the models and diagrams used in systems analysis and design

Resources for this topic

READING

- Satzinger, Jackson & Burd, Chapter 1
- Online Chapter A (you can skim section 'Systems that solve business problems')
    - Online Chapter A is on My Unit Readings.

ONLINE INFORMATION

- Australian Computer Society (ACS): https://www.acs.org.au/
- ACS Code of Professional Conduct: https://www.acs.org.au/content/dam/acs/rules-and-regulations/Code-of-Professional-Conduct_v2.1.pdf
- ACS Code of Ethics: https://www.acs.org.au/content/dam/acs/rules-and-regulations/Code-of-Ethics.pdf
- http://it.seek.com.au/ - search on systems analyst and business analyst

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Resources for this topic

Except where otherwise referenced, all images in these slides are from those provided with the textbook: Satzinger, J., Jackson, R. and Burd, S. (2016) *Systems Analysis and Design in a Changing World*, 7th edition, Course Technology, Cengage Learning: Boston. ISBN-13 978130511720 4

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Tutorial 1 –
Overview of systems analysis and design

In the first workshop, we will introduce some basic concepts about information systems, systems development, and the role of the system analyst. We'll use a simple example to give you some practice in thinking about the activities involved in undertaking a systems development project. The example will introduce in quite an informal way some of the techniques and models we use for representing systems analysis and design activities, and we'll return to these in more detail throughout the unit.

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Topic outline

- Information systems
- The systems analyst
  - Job profiles in systems analysis and design
- How information systems are developed:
  - Stakeholders in systems development
  - The SDLC
  - Approaches to systems development
- Example

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1. Information systems

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Background definitions

- An **information system** is an arrangement of people, data, processes, and information technology that interact to collect, process, store, and provide information needed to support an organization.

Question

- What are some examples of information systems you have used?

Components of an information system

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Hardware

Procedures

People

Information System

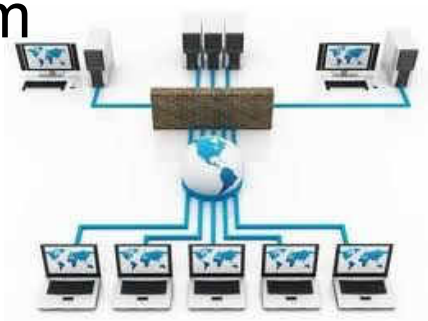
Procedures

Repository

Procedures

Software

Procedures



Network

Image created by Jocelyn Armarego

What makes information systems so essential?

Information systems support business objectives:

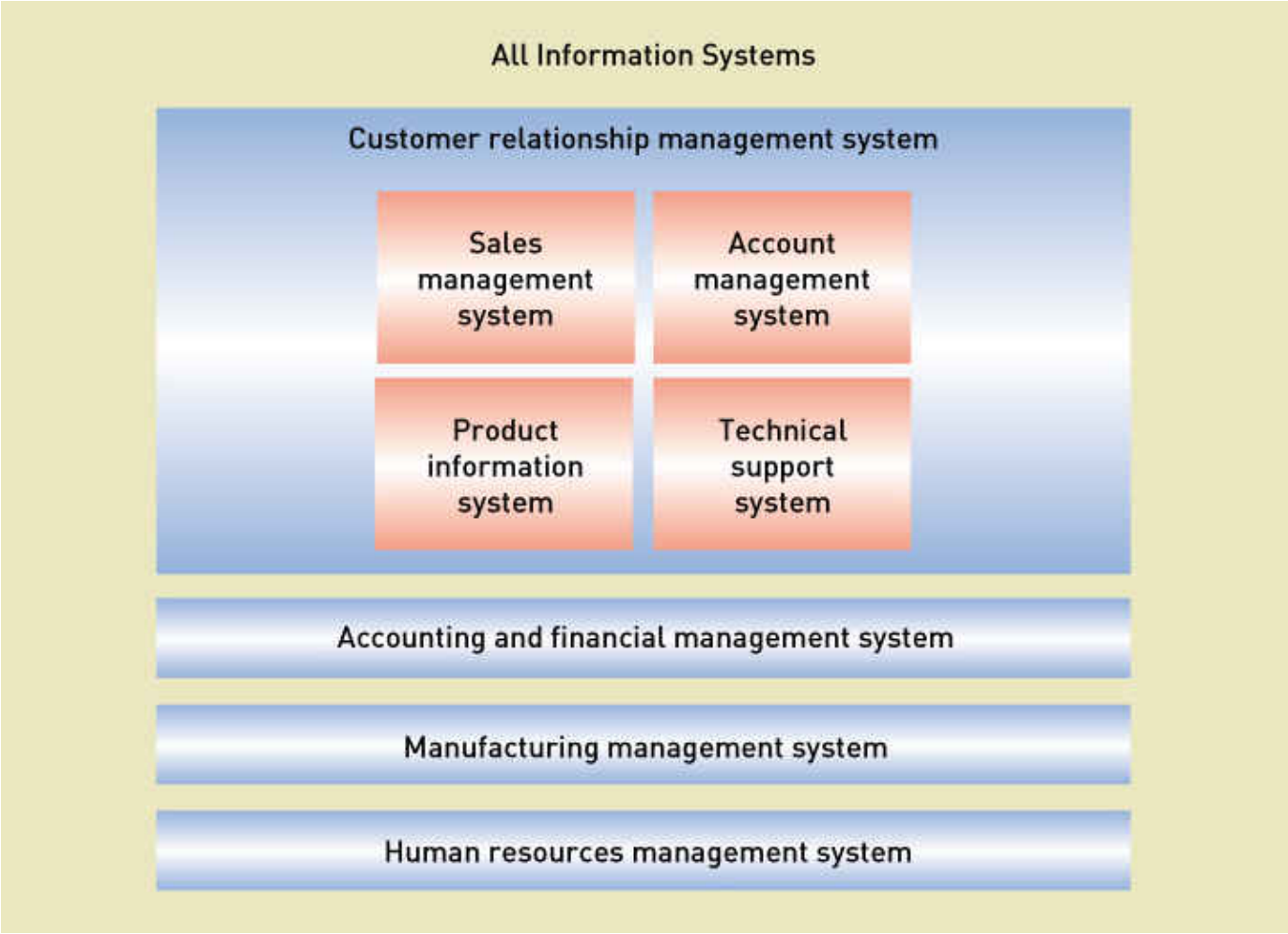
- improved problem-solving & decision making
- operational excellence
- new products, services and business models
- customer/supplier ‘intimacy’
- competitive advantage
- survival

When organisations can’t achieve these, they become problems or challenges

Types of information systems

- Customer relationship management (CRM) system – a system that supports marketing, sales, and service operations involving direct and indirect customer interaction
- Human resource management (HRM) system – a system that supports such employee-related tasks as payroll, benefits, hiring, and training
- Supply chain management (SCM) system – a system that seamlessly integrates product development, product acquisition, manufacturing, and inventory management
- Accounting and financial management (AFM) system – a system that records accounting information needed to produce financial statements and other reports used by investors and creditors

Information systems and subsystems



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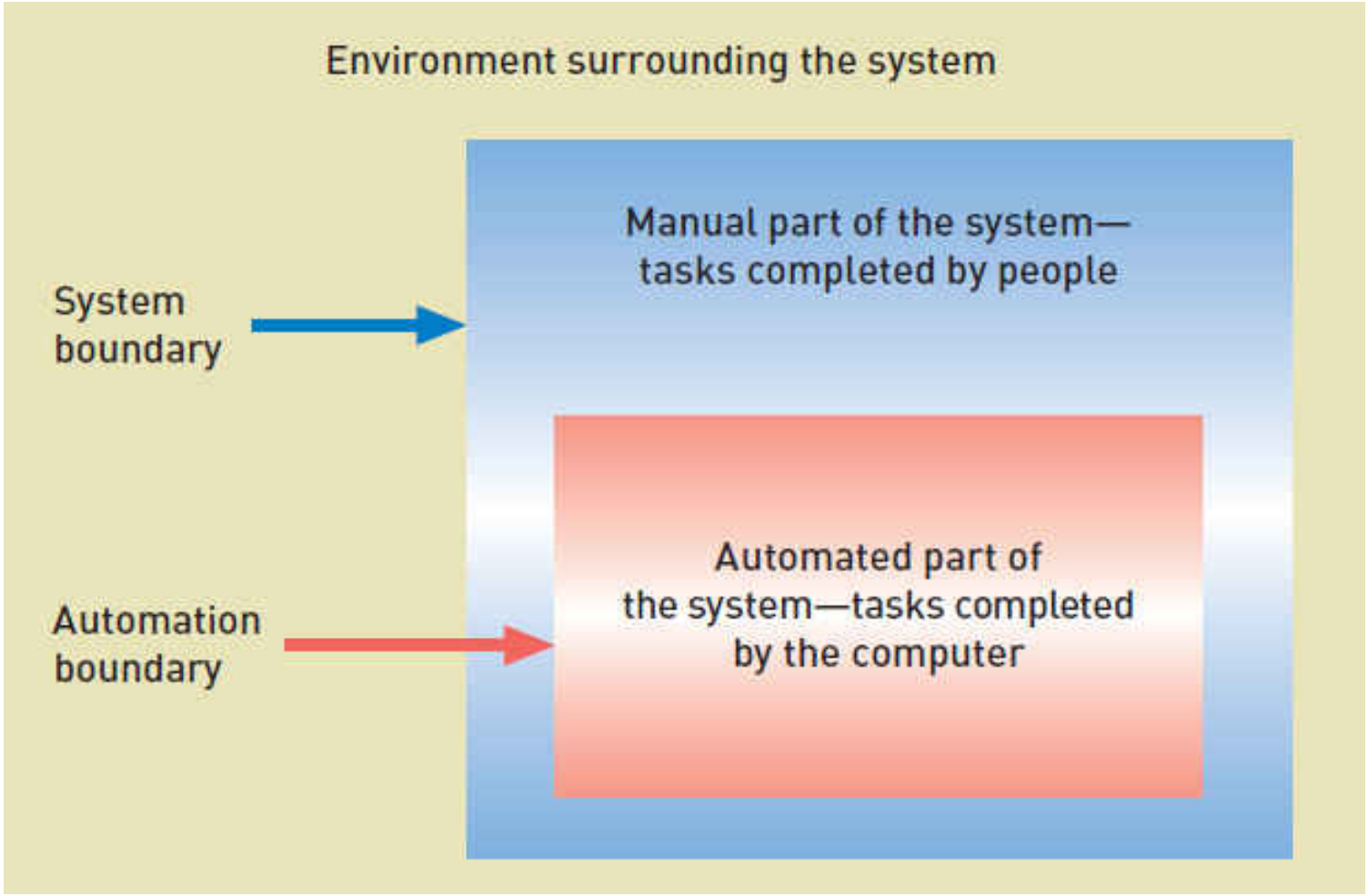
Systems concepts



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Definitions for previous slides

- System – a collection of interrelated components that function together to achieve some outcome
- Information system – a collection of interrelated components that collect, process, store, and provide as output the information needed to complete business tasks
- Subsystem – a system that is part of a larger system
- Functional decomposition – dividing a system into components based on subsystems that are further divided into smaller subsystems
- System boundary – the separation between a system and its environment that inputs and outputs must cross
- Automation boundary – the separation between the automated part of a system and the manual part of a system

Background definitions

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Systems development life cycle (SDLC)

- A framework that identifies and describes all the activities involved in building, deploying, using and updating an information system
- Building a system is a *project* that has phases and needs to be managed – the SDLC describes these phases

SDLC Phases

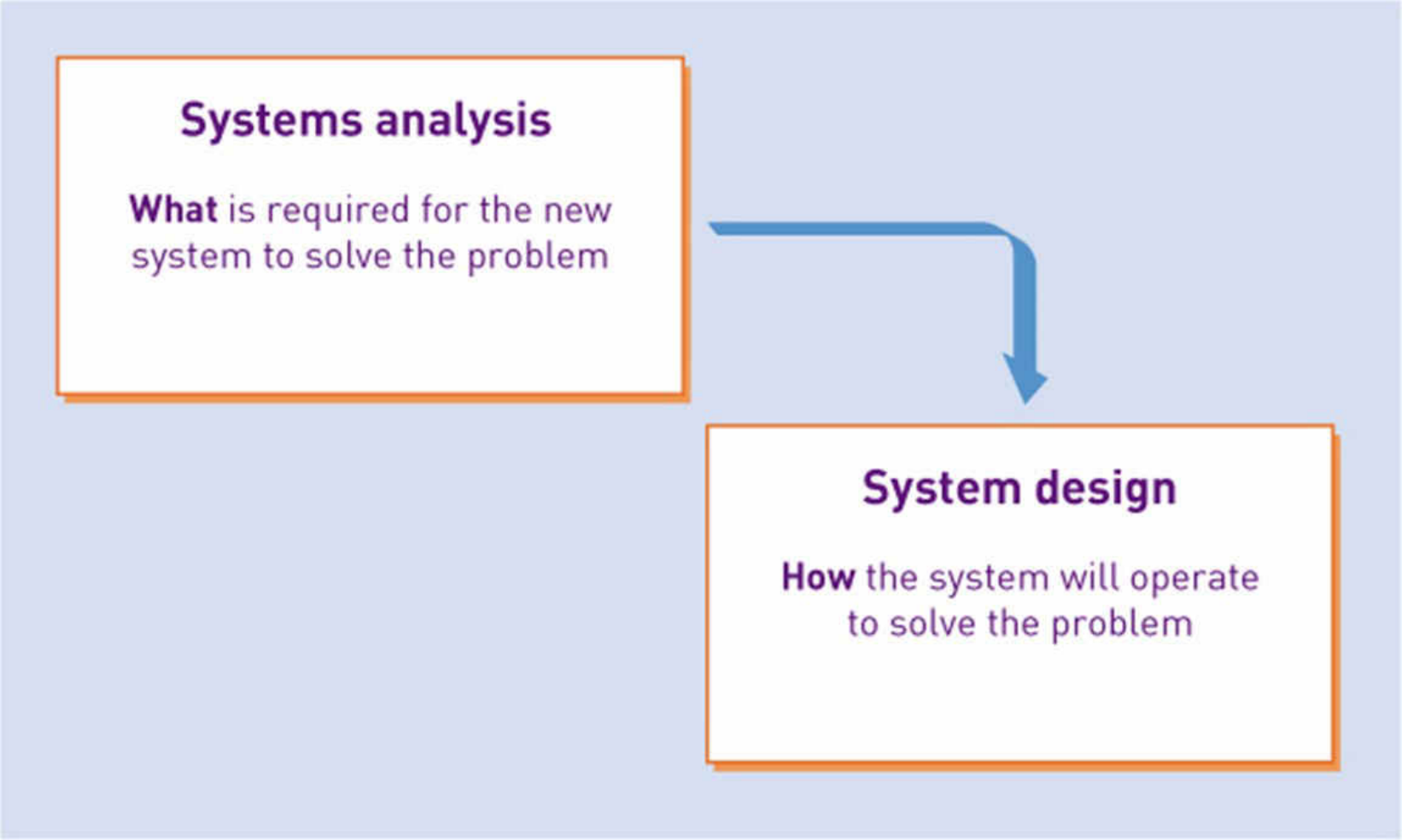
- Initiation
- Planning
- Analysis
- Design
- Construction
- Implementation
- Support

Background definitions

Information **systems analysis** is defined as those development phases in a project that primarily focus on the business problem, independent of any technology that can or will be used to implement a solution to that problem.

Information **systems design** is defined as those tasks in a project that primarily focus on the specification of a detailed computer-based solution.

Systems analysis and systems design



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Analysis or design?

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Task	Analysis or Design?
(A) The systems analyst observes the order entry clerks to determine how a customer's order is processed.	
(B) The systems analyst specifies the structure of a database to support production handling.	
(C) The systems analyst creates a prototype of the interface for the student records system.	
(D) The systems analyst is reviewing the company's organizational chart to identify who becomes involved in payroll authorizations and vacation/sick leave approvals.	

Summing up…

- An **information system** is a collection of interrelated components that collect, process, store, and provide as output the information needed to complete business tasks
- Information systems are essential for achieving business objectives
- **Systems analysis** is the process of understanding and specifying in detail *what* the information system should accomplish
- **Systems design** is the process of specifying in detail *how* the many components of the information system should be physically implemented
- The systems development life cycle (**SDLC)** is a framework that identifies and describes all the activities involved in building, deploying, using and updating an
  information system

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2. The systems analyst

Background definition

- **Systems analyst** – an IT professional who studies the problems and needs of an organization to determine how people, data, processes, and information technology can best accomplish improvements for the business
- Facilitates the development of systems through interaction with other stakeholders

Skills needed by systems analysts

Systems analysts need:

- A working knowledge of information technology
- Programming experience and expertise (usually)
- General business knowledge
- General problem-solving skills
- Good interpersonal communication skills
- Flexibility and adaptability
- Ethics

Why?

Ethics and systems analysts

- Analysts often gain access to sensitive and or confidential facts and information that isn't intended for public disclosure
- Products of systems analysis and design are usually the intellectual property of the employer
- Systems analysts must be conscious of the relevant codes of ethics:

  Australian Computer Society (ACS):
  https://www.acs.org.au/content/dam/acs/rules-and-regulations/Code-of-Ethics.pdf
  https://www.acs.org.au/content/dam/acs/rules-and-regulations/Code-of-Professional-Conduct_v2.1.pdf

  Association for Computing Machinery (ACM):
  http://www.acm.org/constitution/code.html

ACS Code of Professional Conduct

1.2. THE CODE

As an ACS member you must uphold and advance the honour, dignity and effectiveness of being a professional. This entails, in addition to being a good citizen and acting within the law, your conformance to the following ACS values.

1. ***The Primacy of the Public Interest***
   You will place the interests of the public above those of personal, business or sectional interests.

2. ***The Enhancement of Quality of Life***
   You will strive to enhance the quality of life of those affected by your work.

3. ***Honesty***
   You will be honest in your representation of skills, knowledge, services and products.

4. ***Competence***
   You will work competently and diligently for your stakeholders.

5. ***Professional Development***
   You will enhance your own professional development, and that of your staff.

6. ***Professionalism***
   You will enhance the integrity of the ACS and the respect of its members for each other.

In a situation of conflict between the values, The Primacy of the Public Interest takes precedence over the other values.

https://www.acs.org.au/content/dam/acs/rules-and-regulations/Code-of-Professional-Conduct_v2.1.pdf

ACS Code of Professional Conduct

1.2.1. The Primacy of the Public Interest

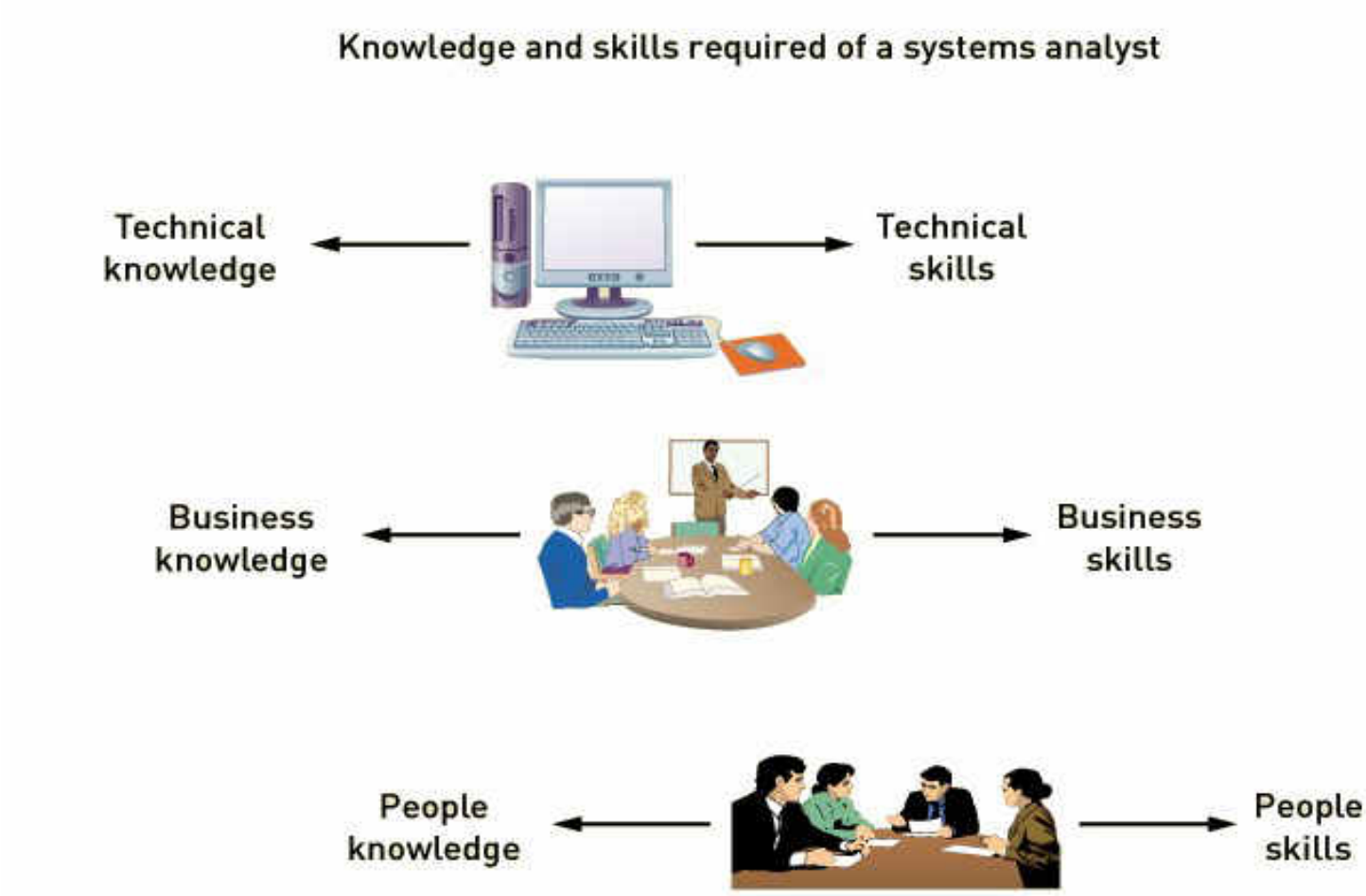
In the context of this Code, the public interest takes precedence over personal, private and sectional interests, and any conflicts should be resolved in favour of the public interest. In your work, you should safeguard the interests of your immediate stakeholders, provided that these interests do not conflict with the duty and loyalty you owe to the public. The public interest is taken to include matters of public health, safety and the environment.

In accordance with this value you will:

a) identify those potentially impacted by your work and explicitly consider their interests;
b) raise with stakeholders any potential conflicts between your professional activity and legal or other accepted public requirements;
c) advise your stakeholders as soon as possible of any conflicts of interest or conscientious objections that you have;
d) take into consideration the fact that your profession traverses many other professions, and has implications for other social systems and organisations;
e) endeavour to preserve the integrity, security, continuity and utility of ICT;
f) respect the intellectual property of others; and
g) endeavour to preserve the confidentiality and privacy of the information of others.

https://www.acs.org.au/content/dam/acs/rules-and-regulations/Code-of-Professional-Conduct_v2.1.pdf

Knowledge and skills required of a systems analyst



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Technical knowledge and skills

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- Computers and how they work
- File, database, and storage hardware and software
- Input and output hardware and software
- Computer networks and protocols
- Programming languages, operating systems, and utilities
- Communication and collaboration technology such as videoconferencing, web-based document management systems

Technical knowledge and skills: Tools and techniques for systems development

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- Techniques - strategies for completing specific system development activities
  - Project planning and management
  - Cost/benefit analysis
  - Interviewing
  - Requirements modeling
  - Architectural design
  - Network configuration
  - Database design
- These are supported by appropriate **tools** – e.g. Microsoft Project for project management; Microsoft Visio for requirements **modelling**

Business knowledge and skills

- What business functions do organizations perform?
- How are organizations structured?
- How are organizations managed?
- What type of work goes on in organizations (finance, manufacturing, marketing, customer service, etc)?
- What the **specific** organization does
- What makes it successful
- What its strategies and plans are
- What its traditions and values are

People knowledge and skills

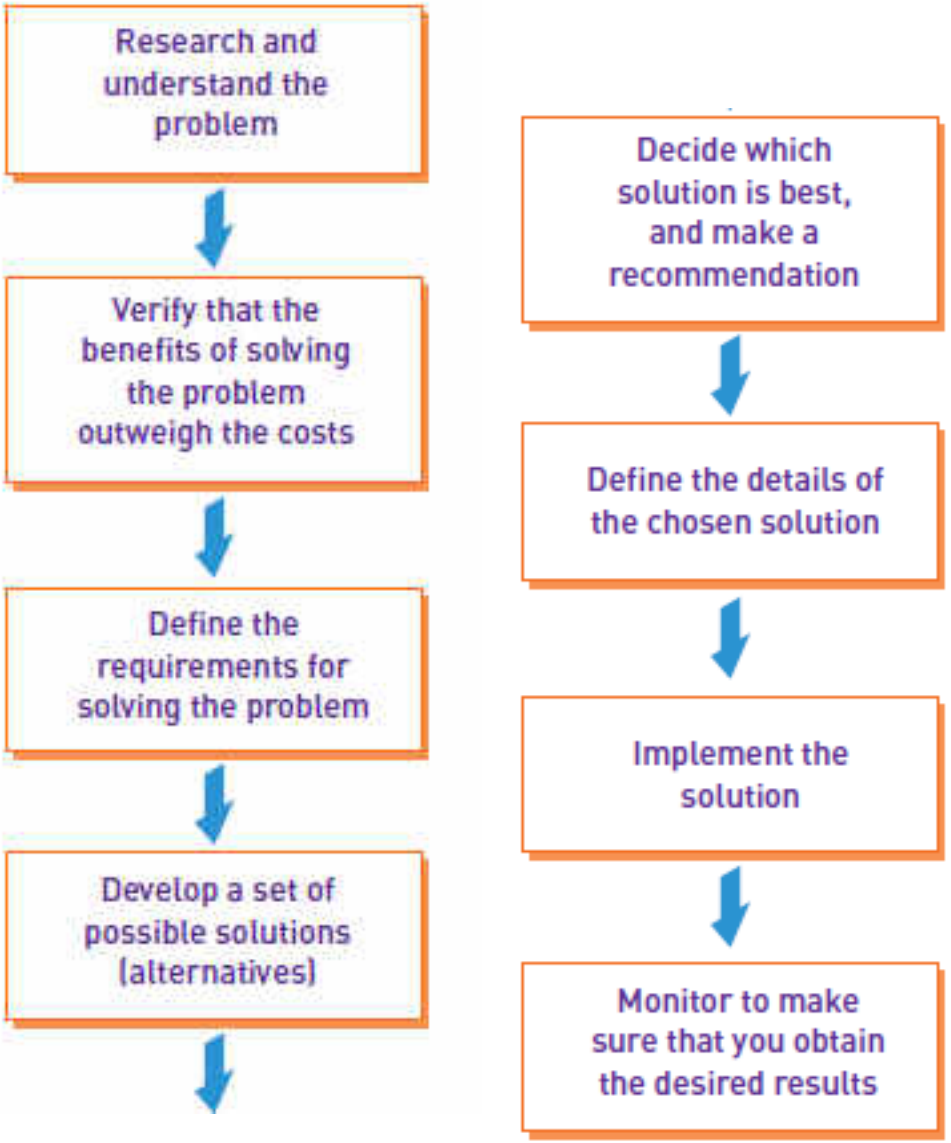
Perhaps the analyst's most important skills because analysts rely on others, including

- Managers
- Users
- Programmers
- Technical specialists
- Customers
- Vendors

…

to take a system from initial idea to final implementation

Problem-solving skills



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Job titles involving systems analysis

- Programmer analyst
- Business systems analyst
- System liaison
- End-user analyst
- Business consultant
- Systems consultant
- Systems support analyst
- Systems designer
- Software engineer
- System architect
- Web architect
- Webmaster
- Web developer

Job Profiles

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Systems Analyst

Primary Skill	Systems design (DESN)
2nd Skill	Information analysis (INAN)
3rd Skill	Business analysis (BUAN)
4th Skill	Technical specialism (TECH)
5th Skill	Data analysis (DTAN)
6th Skill	Business process improvement (BPRE
	Consultancy (CNSL)
	IT governance (GOVN)
	Release and deployment (RELM)

Source: ACS. (2013). Common ICT Job Profiles & Indicators of Skills Mobility *ICT Skills White Paper*. Sydney: Australian Computer Society.

Job Profiles

Business Analyst

Primary Skill	Business analysis (BUAN)
2nd Skill	Business process improvement (BPRE)
3rd Skill	Requirements definition and management (REQM)
4th Skill	Information analysis (INAN)
5th Skill	Data analysis (DTAN)

Source: ACS. (2013). Common ICT Job Profiles & Indicators of Skills Mobility *ICT Skills White Paper*. Sydney: Australian Computer Society.

Job Profiles

Programmer/Analyst

Primary Skill	Programming/software development (PROG)
2nd Skill	Systems design (DESN)
3rd Skill	Data analysis (DTAN)
4th Skill	Technical specialism (TECH)
	Testing (TEST)

Source: ACS. (2013). Common ICT Job Profiles & Indicators of Skills Mobility *ICT Skills White Paper*. Sydney: Australian Computer Society.

Job Profiles

Database Administrator

Primary Skill	Database administration (DBAD)
2nd Skill	Database/repository design (DBDS)
3rd Skill	Programming/software development (PROG)
4th Skill	Data management (DATM)
	Systems design (DESN)

Source: ACS. (2013). Common ICT Job Profiles & Indicators of Skills Mobility *ICT Skills White Paper*. Sydney: Australian Computer Society.

Job Profiles

Project Manager

Primary Skill	Project management (PRMG)
2nd Skill	Programme management (PGMG)
3rd Skill	Systems development management (DLMG)
4th Skill	IT management (ITMG)
5th Skill	Consultancy (CNSL)

Source: ACS. (2013). Common ICT Job Profiles & Indicators of Skills Mobility *ICT Skills White Paper*. Sydney: Australian Computer Society.

Summing up…

- **Systems analyst** – a business professional who uses analysis and design techniques to solve business problems by using information technology
- As well as **problem-solving** skills, systems analysts need good **technical** skills, good **people** skills and good **business** skills, as they must communicate with all of the stakeholders in the systems development project
- Many of today's **IT job profiles** require systems analysis or systems design skills

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How information systems are developed

Stakeholders

The SDLC

Approaches to systems development

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Who is involved in systems development?

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- A **stakeholder** is any person who has an interest in an existing or proposed information system
- Stakeholders can be technical or nontechnical; internal or external to the organisation, e.g.
    - System owners
    - System users
    - System designers
    - System builders
    - Systems analysts

(we'll discuss stakeholders in more detail in Topic 2)

Question:

- Who do you think are the stakeholders in the student records system at Murdoch (i.e. Callista & MyInfo)?

The Systems Development Lifecycle (SDLC)

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- There are many approaches to systems development, but the SDLC provides an overall framework for managing systems development process.
- All projects use some variation of the SDLC
- The exact steps used to describe the phases vary, but essentially the same things are being done

SDLC Phases

- Planning
- Analysis
- Design
- Construction
- Implementation
- Support

These phases are found in almost all approaches to systems development, although their names and precise activities may vary

Planning activities

- Define business problem and scope
- Produce detailed project schedule
- Confirm project feasibility
- Staff the project (resource management)
- Launch project

Analysis activities

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- Gather information to understand problem domain
- Define system requirements
- If necessary, build prototypes for discovery of requirements
- Prioritise requirements
- Generate and evaluate alternatives
- Review recommendations with management

Design activities

- Design the application architecture
- Design the user interfaces
- Design the system interfaces
- Design and integrate the database
- Design and integrate the network
- Prototype for design details
- Design and integrate system controls

Construction and Implementation activities

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Construction

- Construct software components
- Verify and test
- Convert data
- Train users and document the system

Implementation

- Install the system

Note: some versions of the SDLC treat this as a single stage, Implementation

Support activities

- Maintain system
  - Small patches, repairs, and updates
- Enhance system
  - Small upgrades or enhancements to expand system capabilities
  - Larger enhancements may require separate development project
- Support users
  - Help desk and/or support team

Which phase of the SDLC (planning, analysis, design, implementation, or support) is each of the following tasks most likely to occur in?

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Task	SDLC Phase?
The analyst and database administrator make decisions about replicating tables in the database.	
The analyst teaches the plant manager how to generate a new predefined report using a new system.	
A plant supervisor describes the content of a new procurement report that would simplify the tracking of purchase orders.	
The claims adjuster describes to an analyst the results of lost customer business due to delays in the claims processing system.	
The analyst is preparing an initial schedule and budget for the Student Admissions Contact System that was recently approved by the steering committee.	

SDLC phases

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There are various approaches to how the SDLC phases are carried out, e.g.

- Phases are not always sequential
- Phases can overlap
- Activities across phases can be done within multiple iterations

For this reason the text refers to ***core processes*** of the SDLC rather than phases

Core processes of the SDLC

Core processes
Identify the problem and obtain approval.
Plan and monitor the project.
Discover and understand details.
Design system components.
Build, test, and integrate system components.
Complete system tests and deploy the solution.

These are the core SDLC processes as described by the textbook – corresponding to the general phases of:

- Initiation
- Planning
- Analysis
- Design
- Construction
- Implementation

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Approaches to systems development

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Approaches differ in various ways including:

- Whether the focus is on building or buying software solutions
- Whether development is sequential or iterative
- Whether process is predictive or adaptive
- Whether development is model driven or product driven
- Whether the approach is traditional or object-oriented

…

We'll do more on approaches and specific methodologies in a later topic, but will look at a few general ideas next

Predictive versus Adaptive Approaches

One useful simple classification of approaches to the SDLC is to think of them as either predictive or adaptive:

- Predictive approach – assumes project can be planned out in advance
- Adaptive approach – more flexible, assumes project cannot be planned out in advance

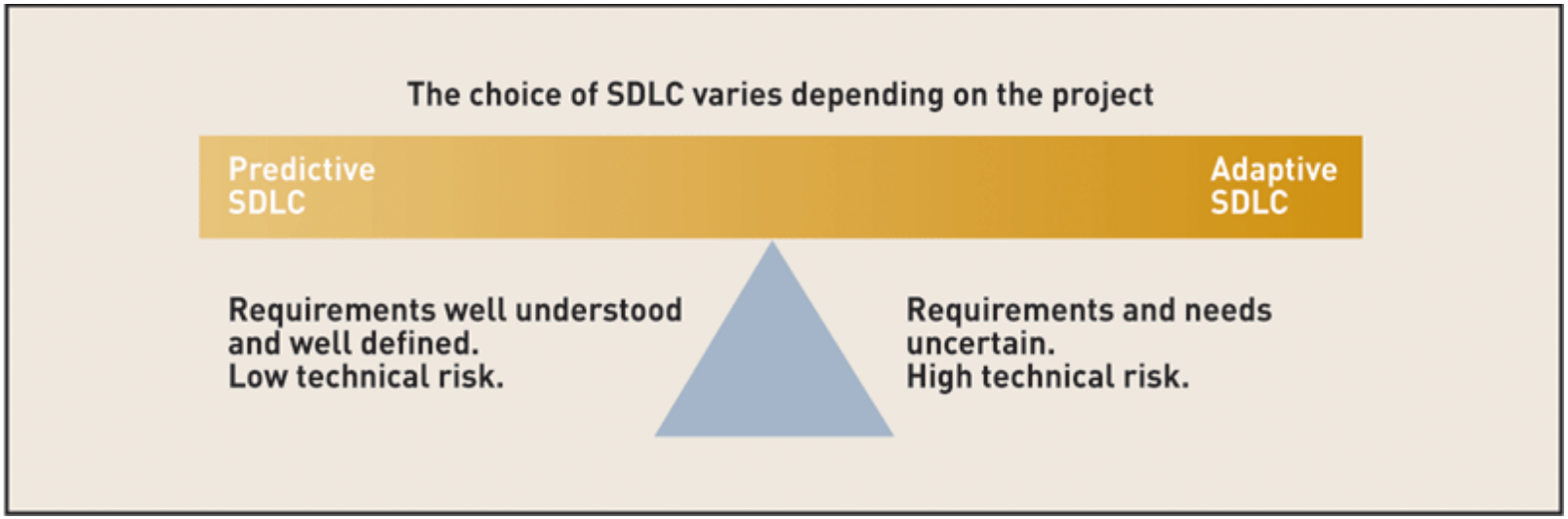

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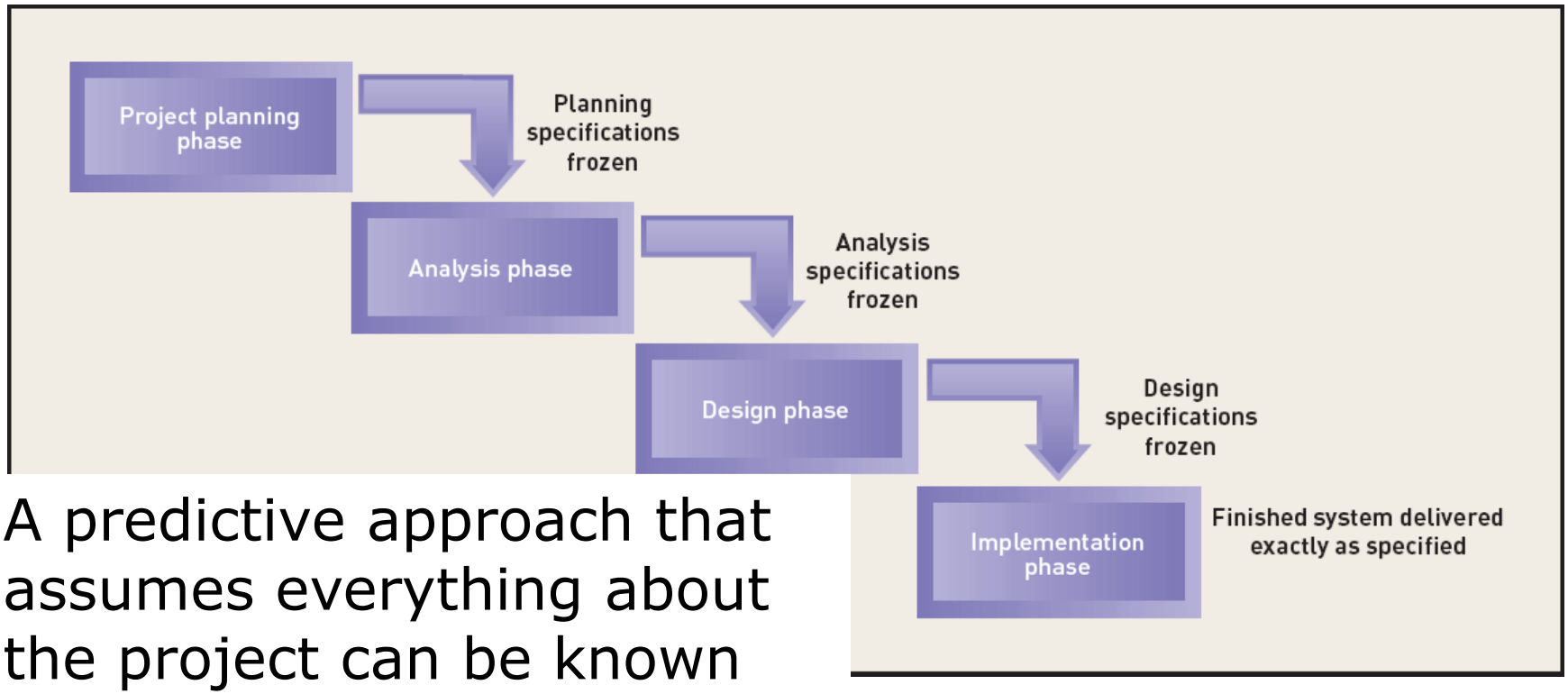
Image from Satzinger, J., Jackson, R. and Burd, S. (2004) *Systems Analysis and Design in a Changing World,* 3rd edition, Course Technology, Thomson.

"Waterfall" approach to the SDLC



A predictive approach that assumes everything about the project can be known and planned in advance

Activities occur in *sequence*

Iterative development

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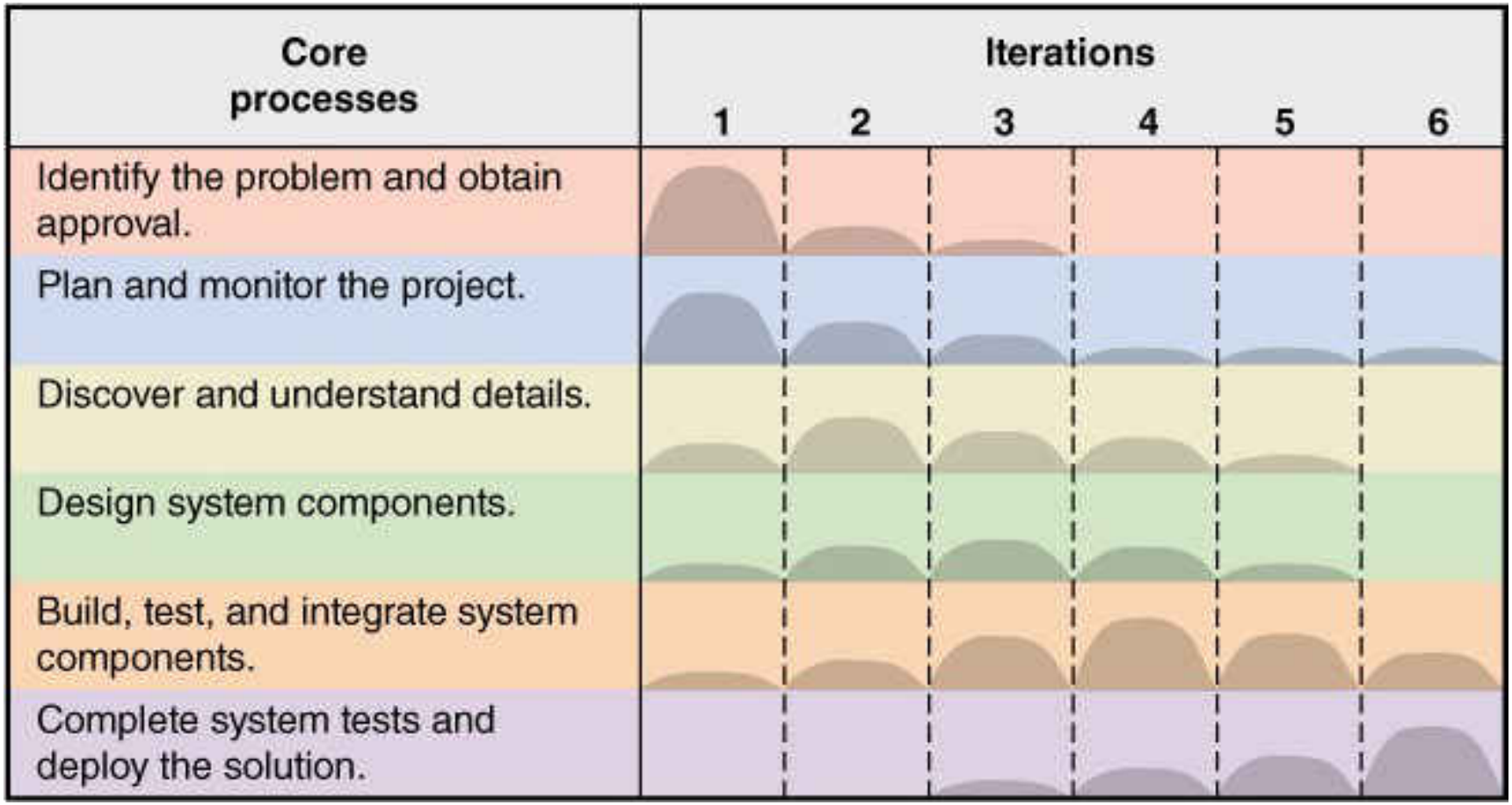
- An approach to systems development in which the system is 'grown' piece by piece through multiple mini-projects called **iterations**
- Each iteration involves all the core processes to a greater or lesser extent, so the result of an iteration is a working part of the system
- Advantages:
- Parts of the system may be deployed sooner
- Focussing on a small portion at a time simplifies a complex project
- Difficult problems can be identified and addressed early
- More flexibility in addressing new requirements and issues that come up

Iterative development



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Background definitions

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Systems development methodology

- A very formal and precise system development process that defines a set of activities, methods, best practices, deliverables, and automated tools that system developers and project managers are to use to develop information systems

System development methodologies

Examples of system development methodologies include:

- Joint Application Development (JAD)
- Information Engineering (IE)
- Rapid Application Development (RAD)
- Rational Unified Process (UP)
- Structured Analysis and Design
- eXtreme Programming (XP)
- Agile Development principles
- …

Summing up…

- Systems development follows a general set of activities that we call the Systems Development Life Cycle or **SDLC**
- Although the activities involved can be grouped and named in various ways, the same **core processes** can be identified
- There are various **approaches** to systems development, suited to different types of project
- A systems development **methodology** provides comprehensive guidelines for carrying out the activities of the SDLC

We'll see these in the final topic

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4. An example

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Example

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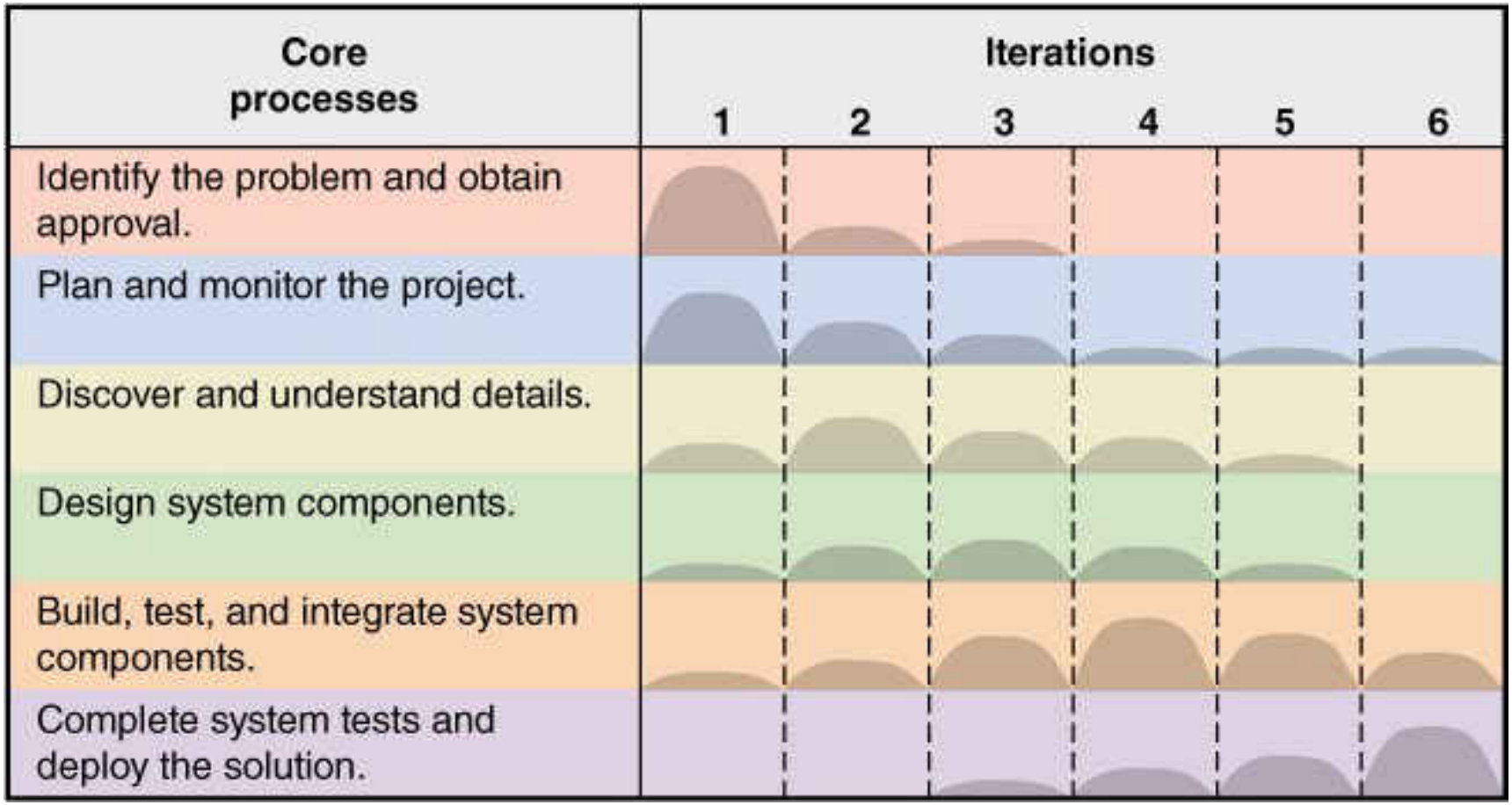
- The next few slides are from the text running case ‘Ridgeline Mountain Outfitters’ (RMO)
- The case describes a project to develop a Tradeshow System for RMO to collect and track information about suppliers and products for its online catalogue
- Uses **iterative** development: the first iteration (the Supplier Information Subsystem) is shown
- Read through the example to get an overview of the process, but don’t worry too much about the detail as we will come back to most of it during the rest of the unit



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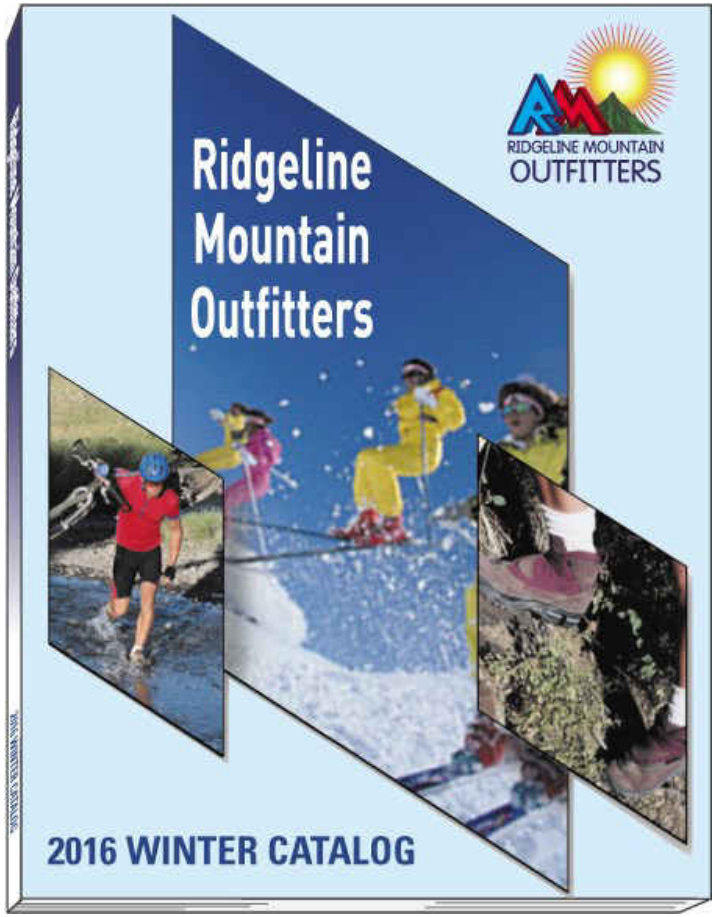
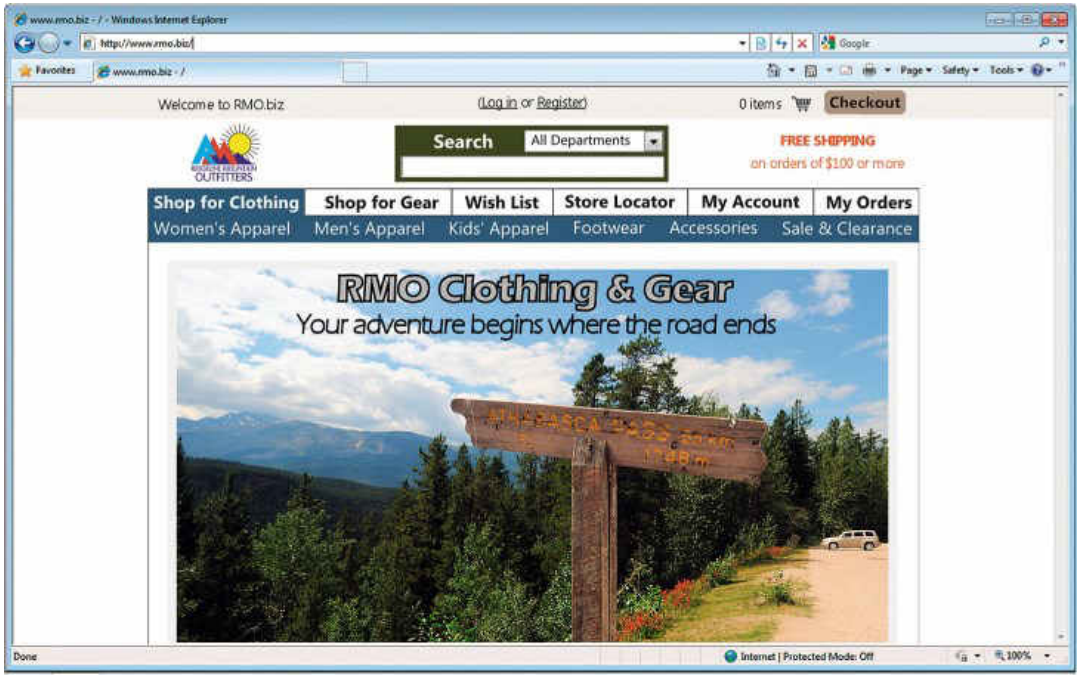
Example - RMO





System Vision Document
RMO Tradeshow System

Problem Description

Trade shows have become an important information source for new products, new fashions, and new fabrics. In addition to the large providers of outdoor clothing and fabrics, there are many smaller providers. It is important for RMO to capture information about these suppliers while the trade show is in progress. It is also important to obtain information about specific merchandise products that RMO plans to purchase. Additionally, if quality photographs of the products can be obtained while at the trade show, then the creation of online product pages is greatly facilitated.

It is recommended that a new system be developed and deployed so field purchasing agents can communicate more rapidly with the home office about suppliers and specific products of interest. This system should be deployed on portable equipment.

System Capabilities

The new system should be capable of:

- Collecting and storing information about the manufacturer/wholesaler (suppliers)
- Collecting and storing information about sales representatives and other key personnel for each supplier
- Collecting information about products
- Taking pictures of products (and/or uploading stock images of products)
- Functioning as a stand-alone without connection
- Connecting via Wi-Fi (Internet) and transmitting data
- Connecting via telephone and transmitting data

Business Benefits

It is anticipated that the deployment of this new system will provide the following business benefits to RMO:

- Increase timely communication between trade show attendees and home office, thereby improving the quality and speed of purchase order decisions
- Maintain correct and current information about suppliers and their key personnel, thereby facilitating rapid communication with suppliers
- Maintain correct and rapid information and images about new products, thereby facilitating the development of catalogs and Web pages
- Expedite the placing of purchase orders for new merchandise, thereby catching trends more rapidly and speeding up product availability

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Document the problem and business case in a System Vision Document

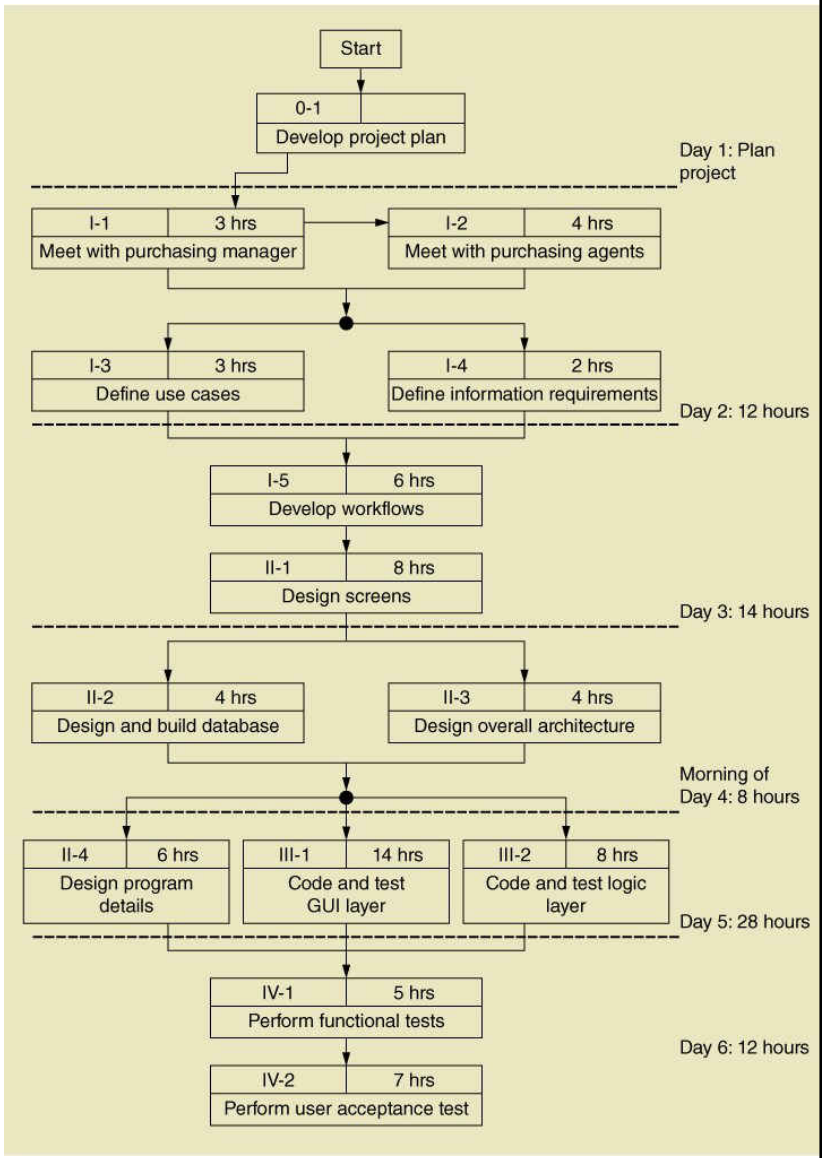
Work Breakdown Structure

I. Discover and understand the details of all aspects of the problem.
   1. Meet with the Purchasing Department manager. ~ 3 hours
   2. Meet with several purchasing agents. ~ 4 hours
   3. Identify and define use cases. ~ 3 hours
   4. Identify and define information requirements. ~ 2 hours
   5. Develop workflows and descriptions for the use cases. ~ 6 hours

II. Design the components of the solution to the problem.
   1. Design (lay out) input screens, output screens, and reports. ~ 8 hours
   2. Design and build database (attributes, keys, indexes). ~ 4 hours
   3. Design overall architecture. ~ 4 hours
   4. Design program details. ~ 6 hours

III. Build the components and integrate everything into the solution.
   1. Code and unit test GUI layer programs. ~ 14 hours
   2. Code and unit test Logic layer programs. ~ 8 hours

IV. Perform all system-level tests and then deploy the solution.
   1. Perform system functionality tests. ~ 5 hours
   2. Perform user acceptance test. ~ 8 hours



Plan the project using a Work Breakdown Structure

Use Case	Description
Look up supplier	Using supplier name, find supplier information and contacts
Enter/update supplier information	Enter (new) or update (existing) supplier information
Look up contact	Using contact name, find contact information
Enter/update contact information	Enter (new) or update (existing) contact information
Look up product information	Using description or supplier name, look up product information
Enter/update product information	Enter (new) or update (existing) product information
Upload product image	Upload images of the merchandise product

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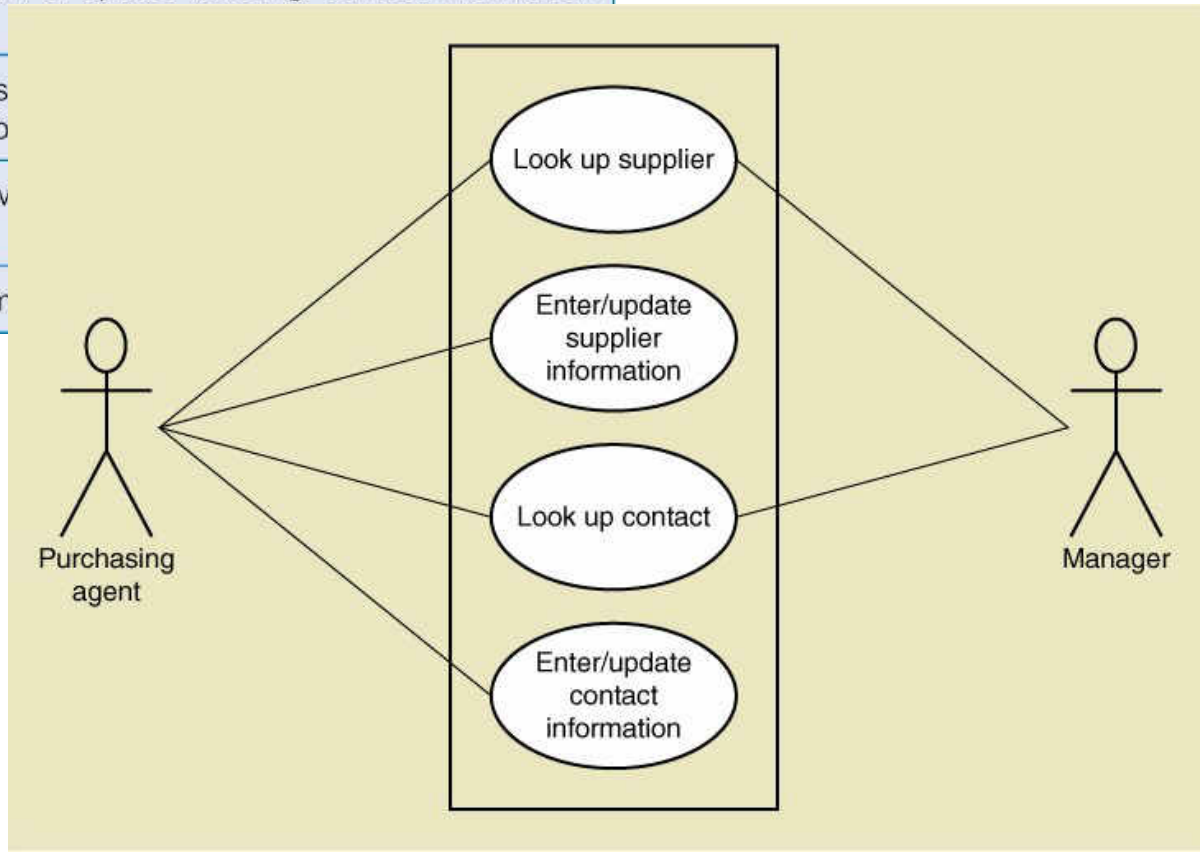
Identify Use Cases – things the system needs to do

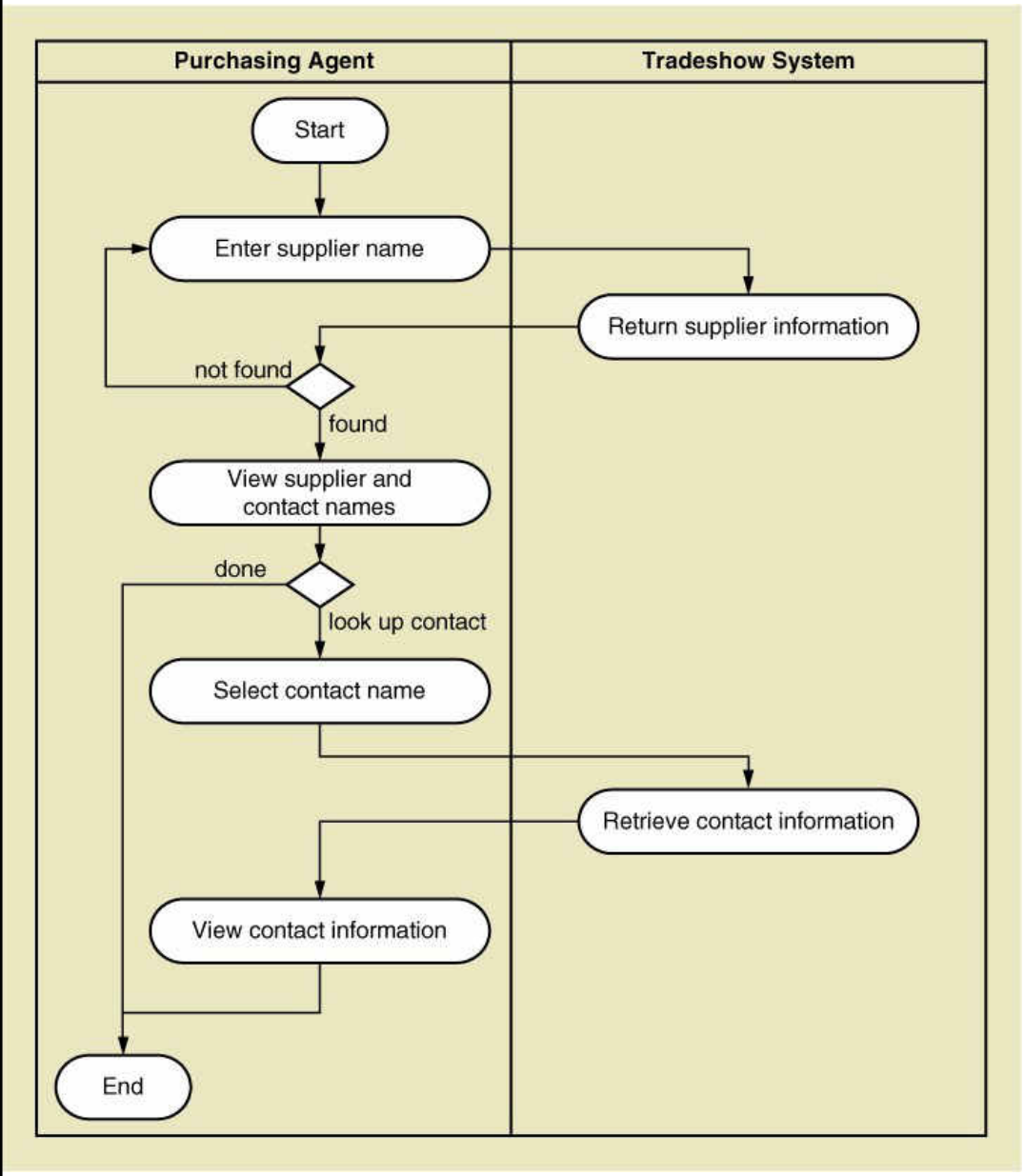
Object Classes	Attributes
Supplier	supplier name, address, description, comments
Contact	name, address, phone(s), e-mail address(es), position, comments
Product	category, name, description, gender, comments
ProductPicture	ID, image

Identify domain classes (information the system must store)

Use Case	Description
Look up supplier	Using supplier name, find supplier information and contacts
Enter/update supplier information	Enter (new) or update (existing) supplier information
Look up contact	Using contact name, find contact information
Enter/update contact information	Enter (new) or update (existing) contact information
Look up product information	Using des informatio
Enter/update product information	Enter (nev
Upload product image	Upload im

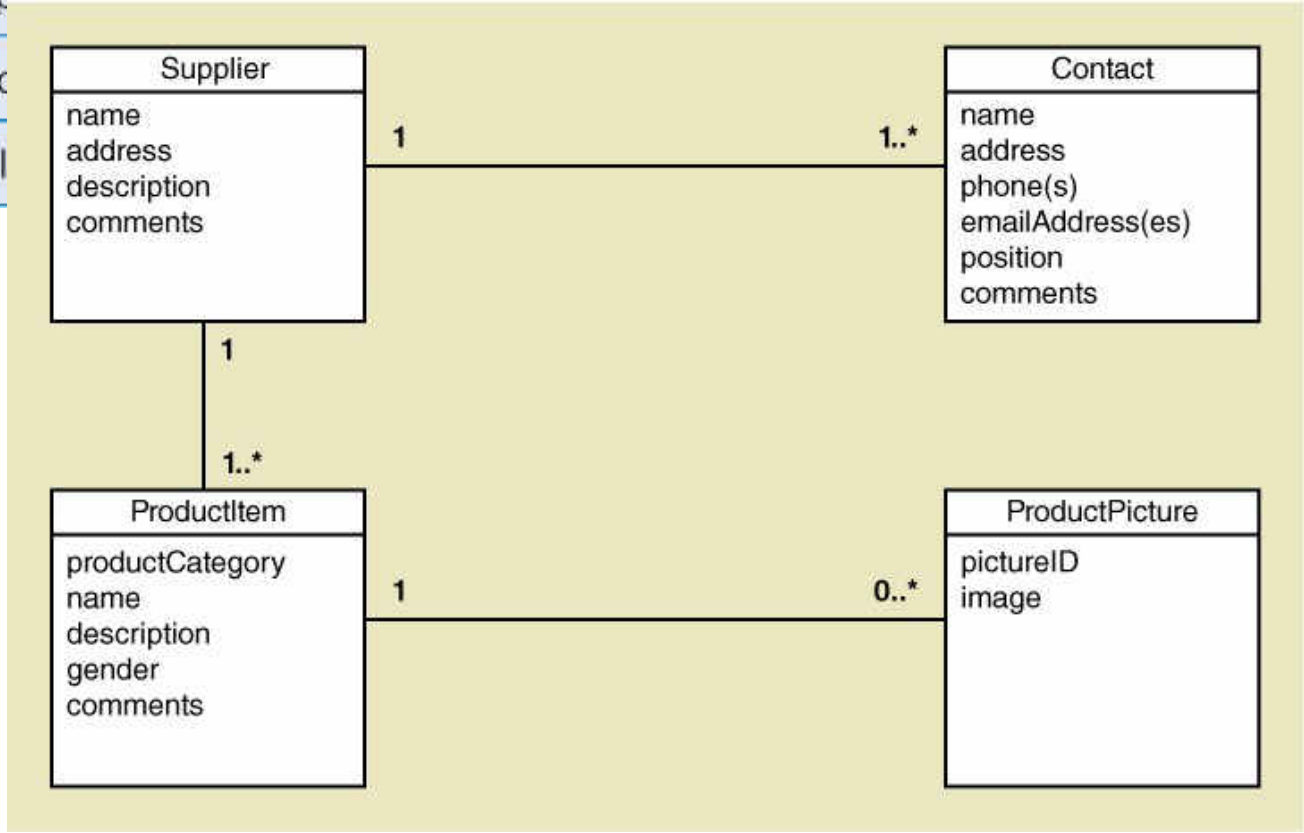


Develop Use Case diagrams



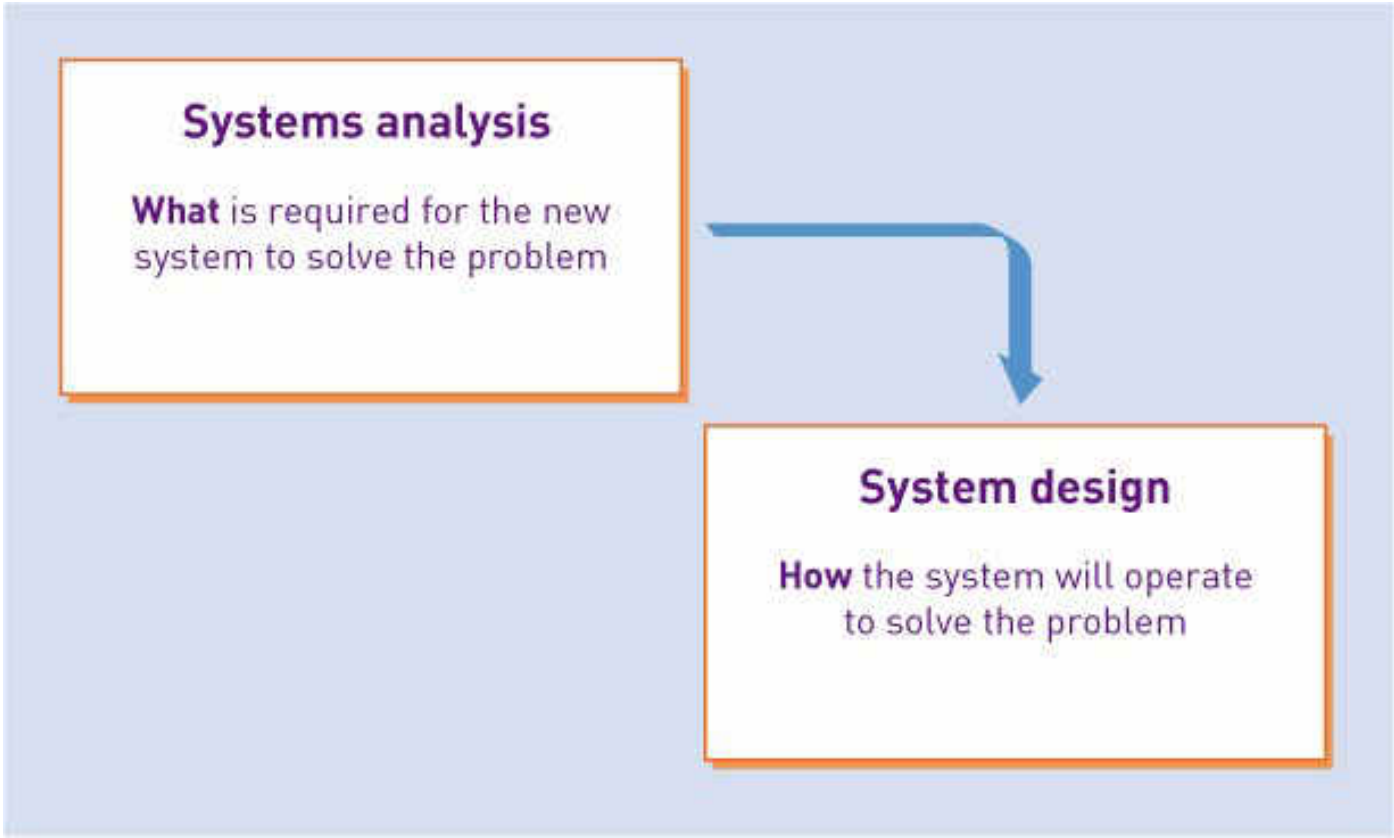
Document use case workflow in an Activity Diagram

Object Classes	Attributes
Supplier	supplier name, address, description, comments
Contact	name, address, phone(s), e-mail address(es), position, comments
Product	
ProductPicture	



Model data requirements in a Domain Model Class Diagram

Moving from analysis to design…



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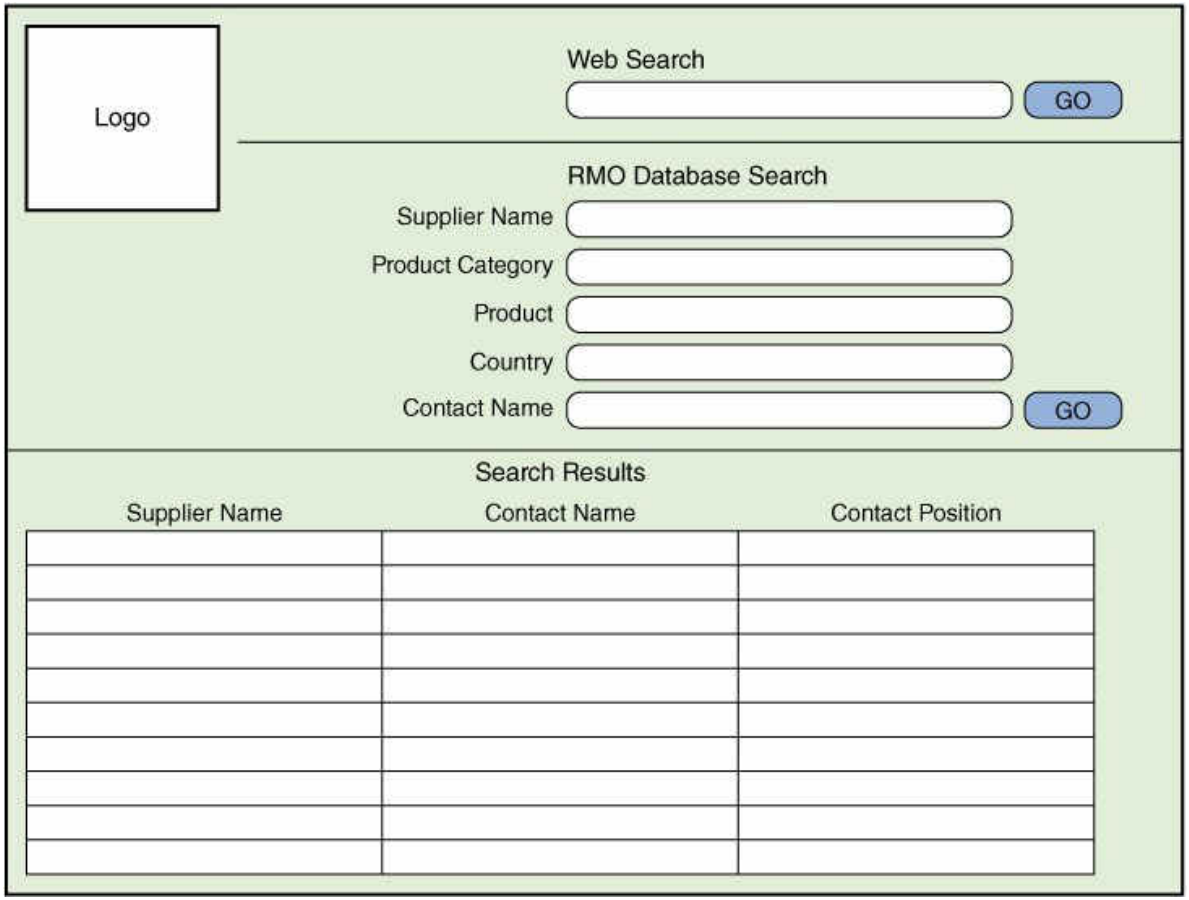
Define screen layouts for the user interface



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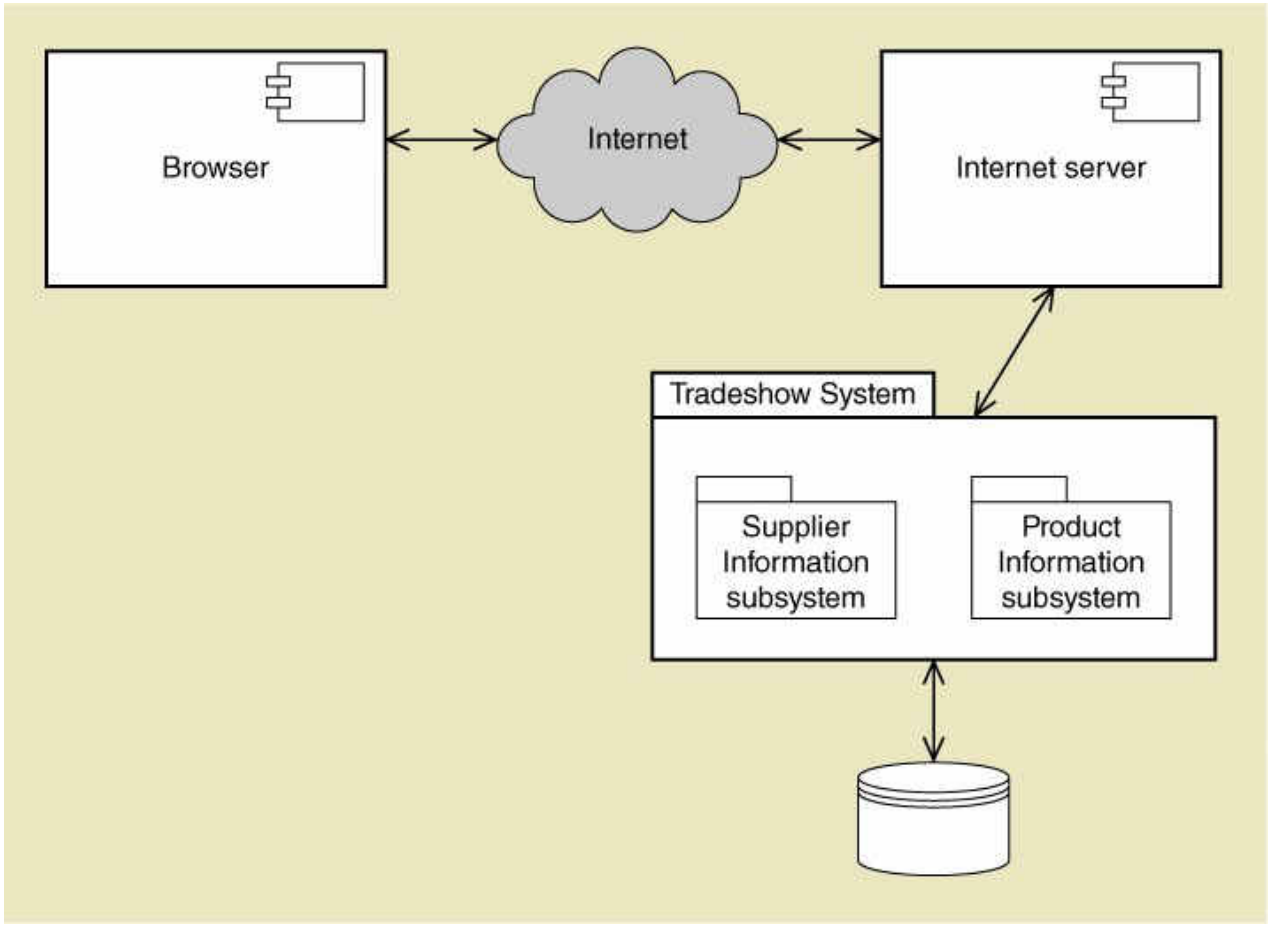
Design the database

Table Name	Attributes
Supplier	SupplierID: integer {key} Name: string {index} Address1: string Address1: string City: string State-province: string Postal-code: string Country: string SupplierWebURL: string Comments: string
Contact	ContactID: integer {key} SupplierID: integer {foreign key} Name: string {index} Title: string WorkAddress1: string WorkAddress2: string WorkCity: string WorkState: string WorkPostal-code: string WorkCountry: string WorkPhone: string MobilePhone: string EmailAddress1: string EmailAddress2: string Comments: string

Design the software components for the system architecture



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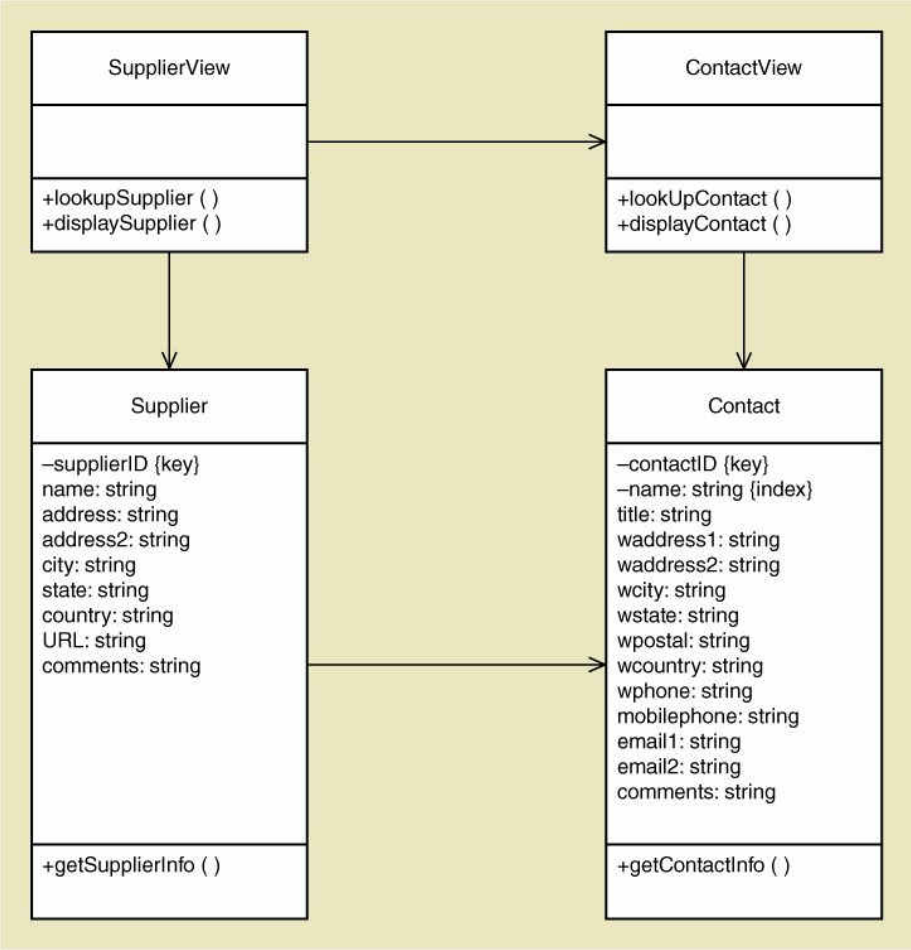
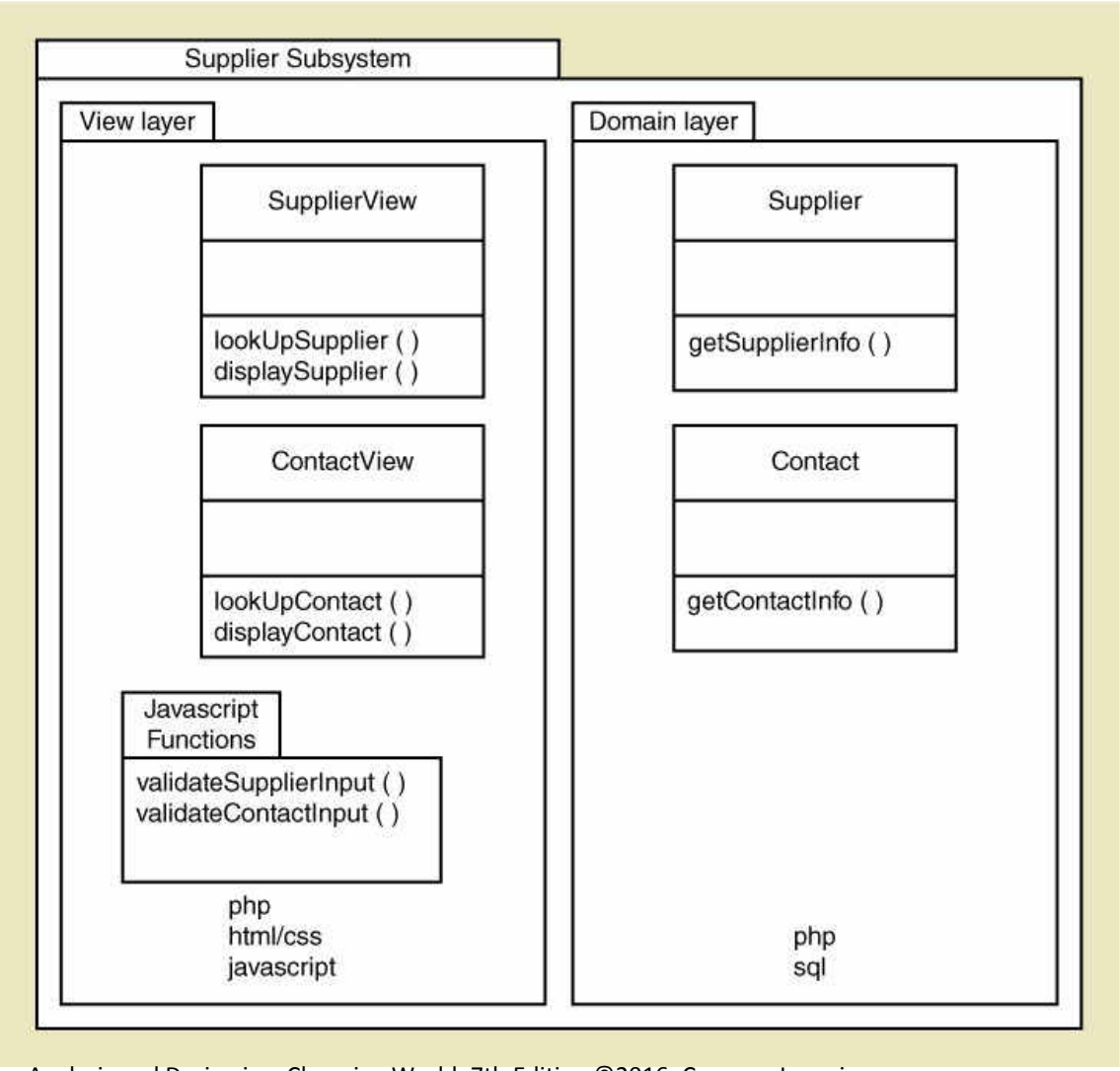
Extend the domain model to a design class diagram



Plan the software modules



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Write the program code

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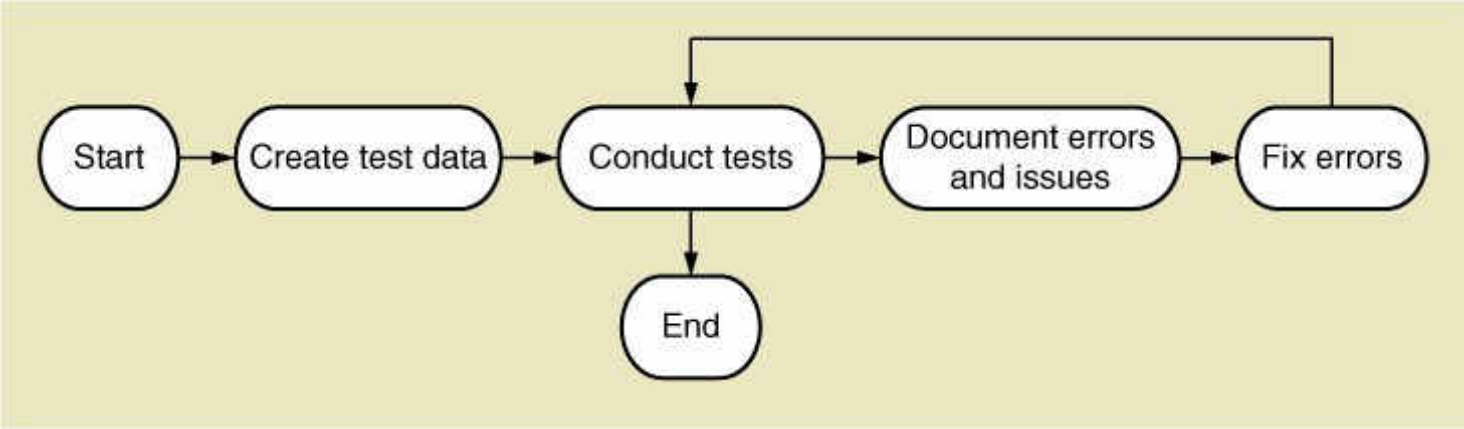
```
<?php
    class SupplierView
    {
        private Supplier $theSupplier;

        function __construct()
        {
            $this->theSupplier = new Supplier();
        }

        function lookupSupplier()
        {
          include('lookupSupplier.inc.html');
        }

        function displaySupplier()
        {
              include('displaySupplierTop.inc.html');
              extract($_REQUEST);   // get Form data
            //Call Supplier class to retrieve the data
            $results = $theSupplier->getSupplierInfo($supplier, $category,
                                              $product, $country, $contact);

           foreach ($results as $resultItem){
           ?>
                    <tr>
                        <td style="border:1px solid black">
                              <?php echo $resultItem->supplierName?></td>
                        <td style="border:1px solid black">
                               <?php echo $resultItem->contactName?></td>
                        <td style="border:1px solid black">
                           <?php echo $resultItem->contactPosition?></td>
                    </tr>
            <?php }
            include('displaySupplierFoot.inc.html');
        }
    }
?>
```

Perform testing



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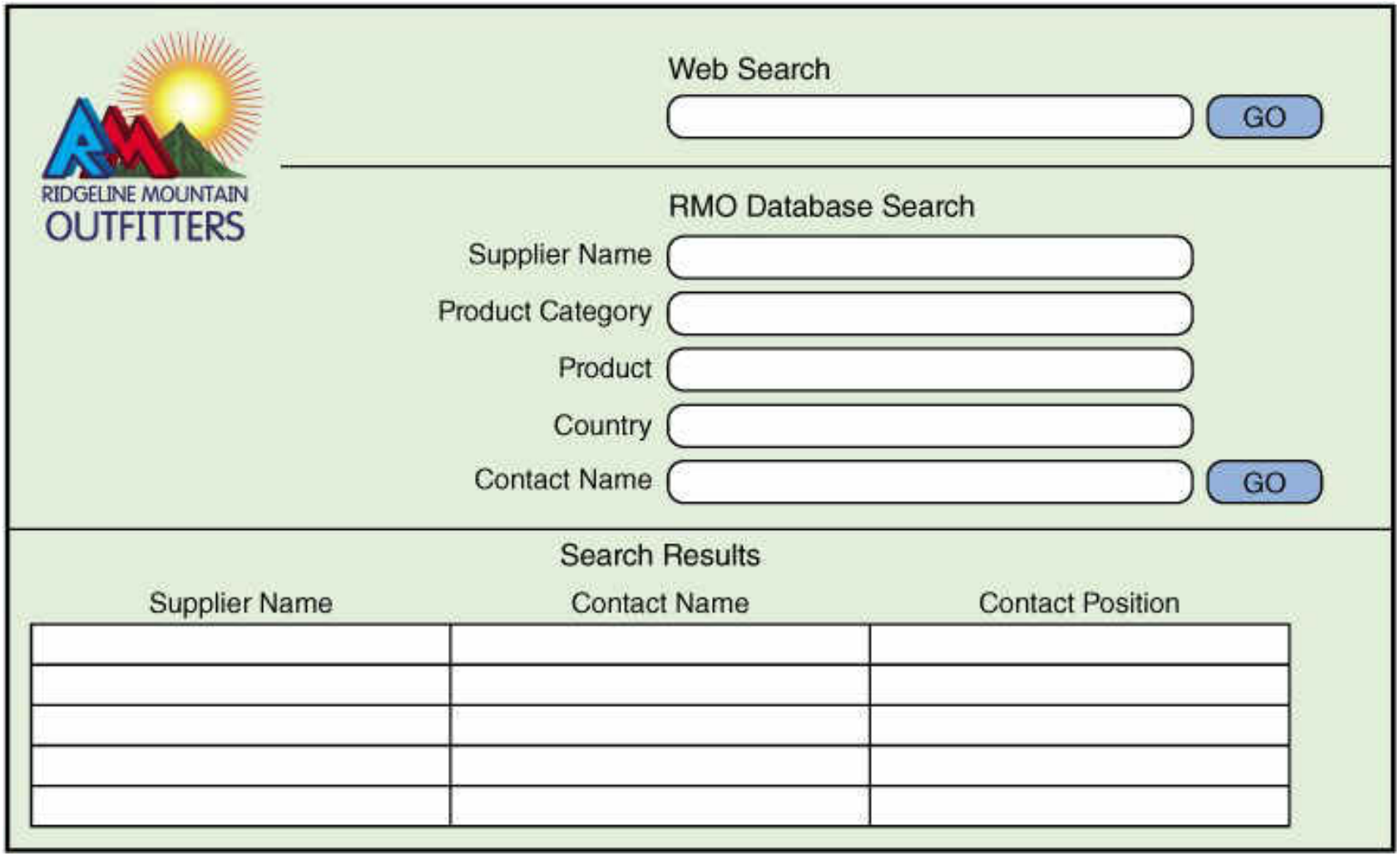
First iteration of the project completed



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First iteration of the project completed

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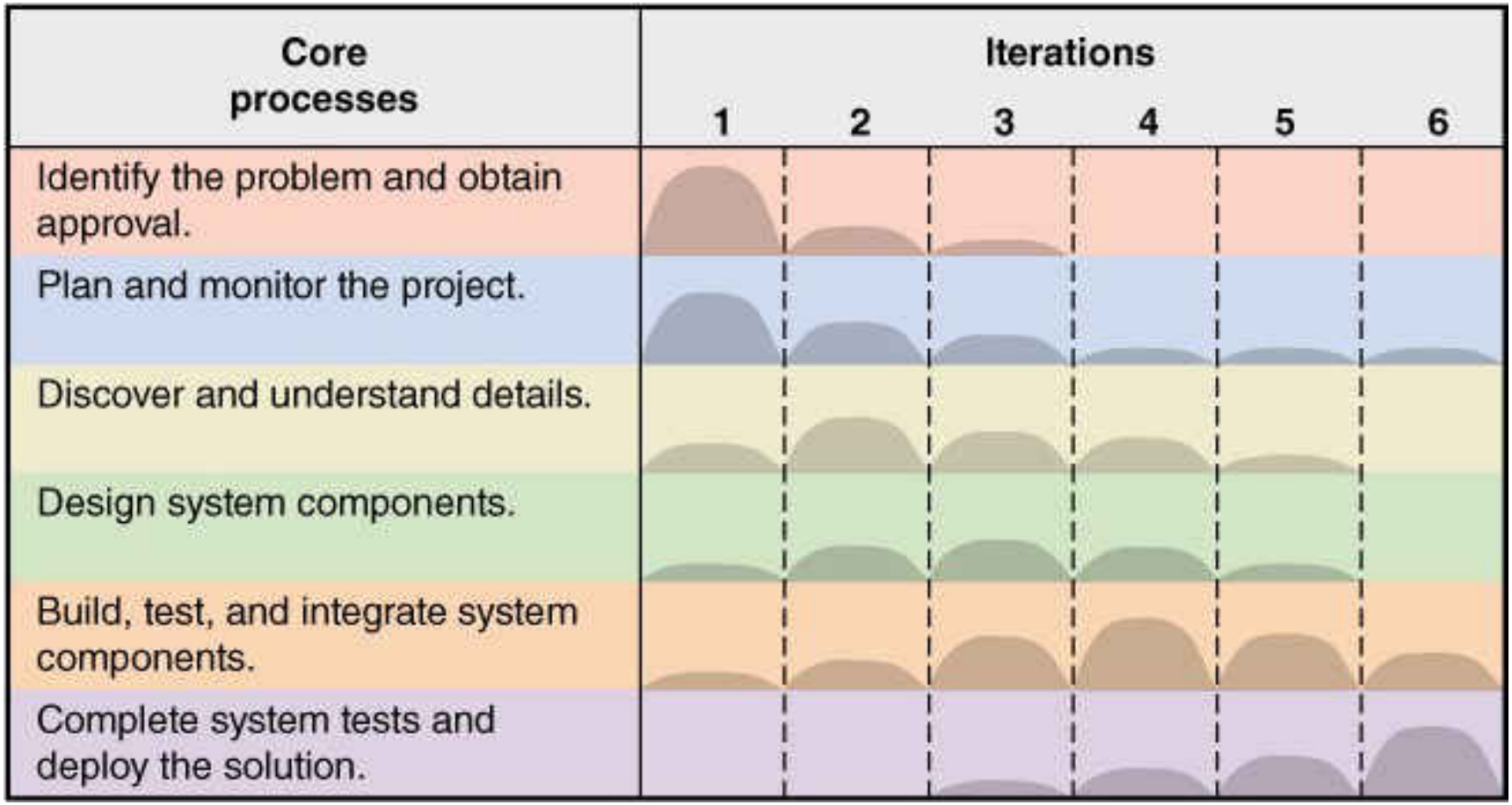

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Topic learning outcomes revisited

After completing this topic you should be able to:

- Explain what an information system is
- Describe the various job titles and roles associated with analysis and design work
- Appreciate the social responsibilities of analysts and designers
- List some of the stakeholders in IS development
- Identify the phases of the systems development life cycle (SDLC) and their purposes
- Explain what a system development methodology is
- Recognise some of the models and diagrams used in systems analysis and design

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What’s next?

In the next topic, we’ll start to look at the phases of the SDLC in detail, including project initiation, problem identification, and investigating the requirements for the new system.