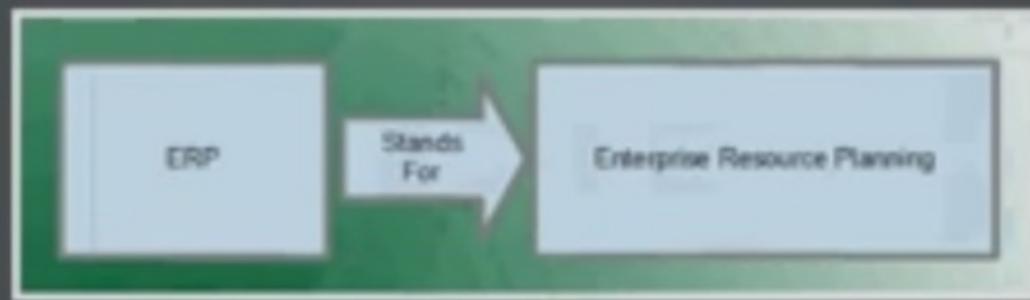


THE TERM ERP

The term "ERP" stands for "Enterprise Resource Planning".



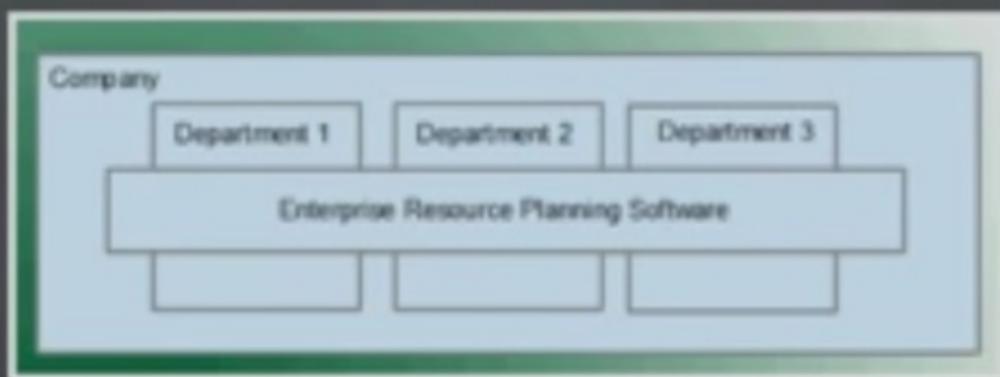
TYPE OF SOFTWARE

ERP is not a name of any software, instead it is a class (or type) of software.



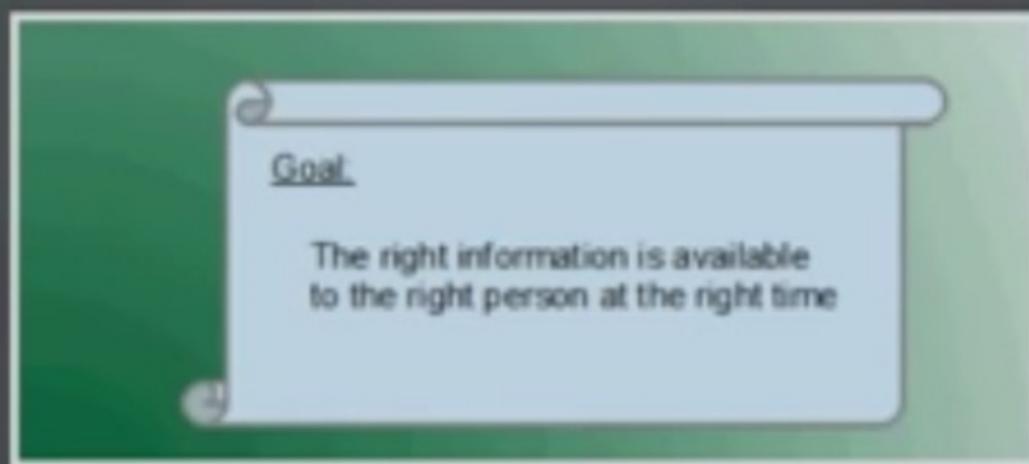
FUNCTIONALITY

An ERP software provides an end to end information management solution for a company. The software could be used by all departments of the company to manage the information.



OBJECTIVE

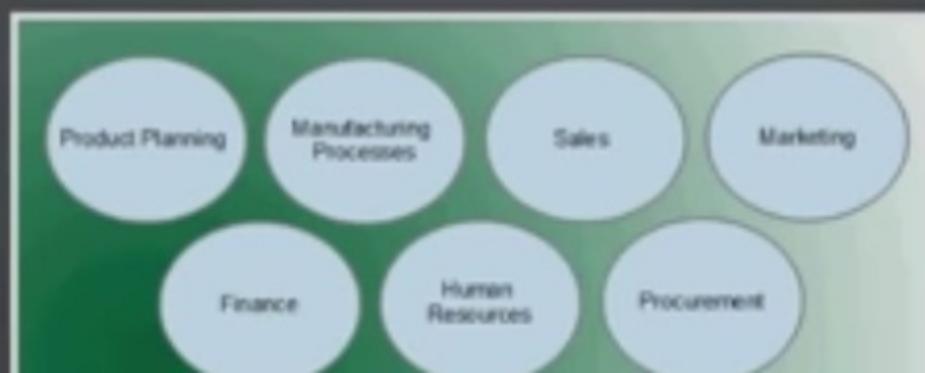
The goal is that right information is available to the right person at the right time.



BUSINESS AREAS

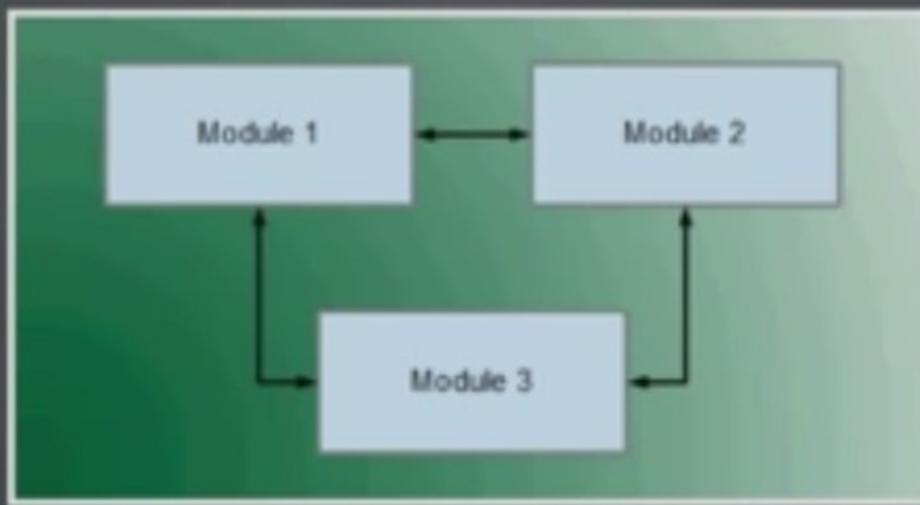
ERP software integrates all areas of operations including:

- Product Planning
- Manufacturing Processes
- Sales
- Marketing
- Finance
- Human Resources
- Procurement



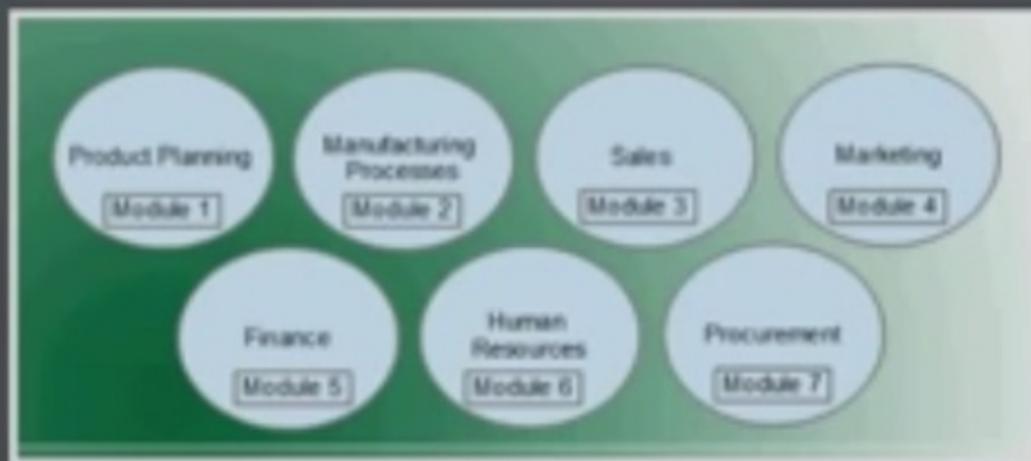
MODULAR AND INTEGRATED

An ERP software is typically modular but integrated. Meaning it consists of multiple modules that are connected to each other.



FOCUS OF A MODULE

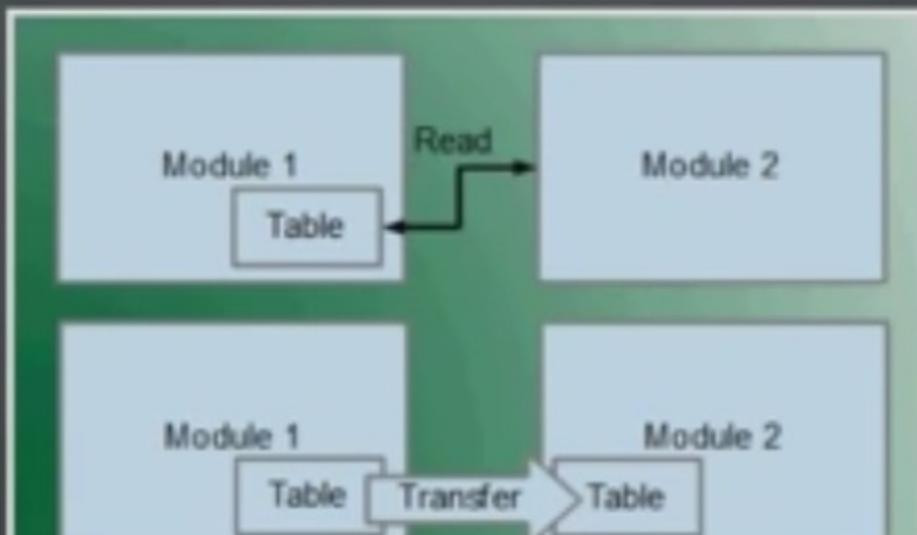
Each module is focused on one area of business processes e.g. finance, human resources etc.



COMMUNICATION AMONG MODULES

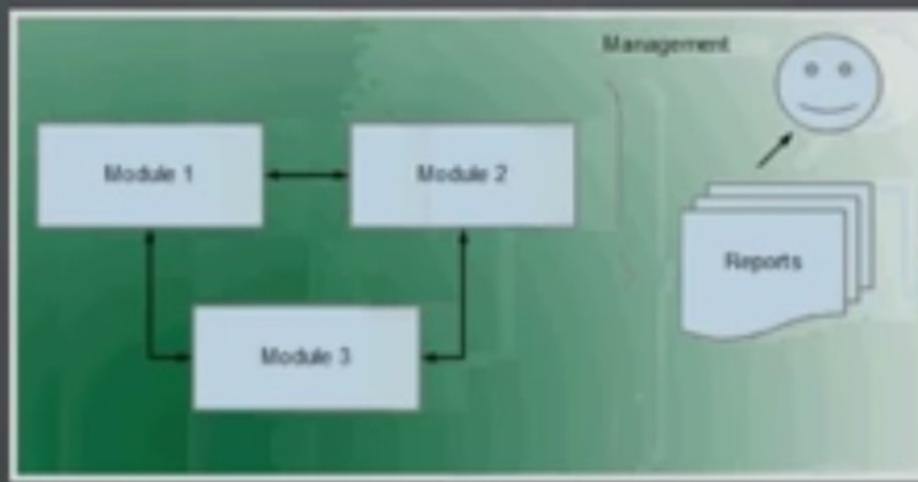
When we say modules are integrated that means:

- A module could share information stored in another module e.g. list of suppliers etc.
- Also information could flow from one module to the other e.g. accounting entries etc.



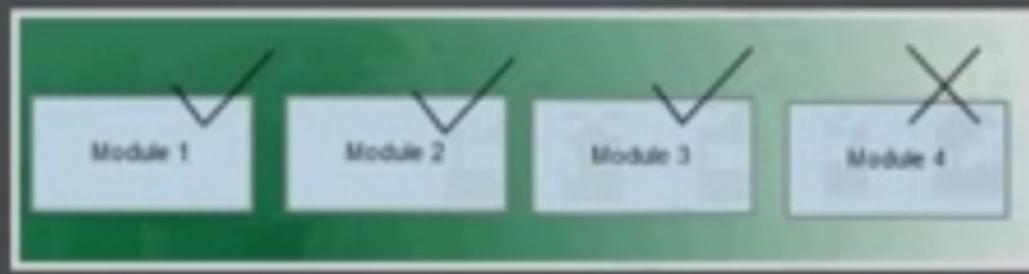
MANAGEMENT REPORTING

Since modules are connected, management of a company could run reports on any aspects of the business to get a complete view of activities. Reports help executives make strategic decisions.



LICENSING

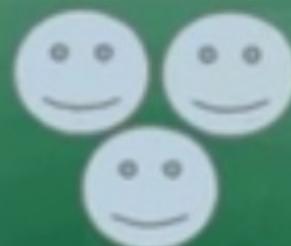
Modules could be individually purchased based on what best meets the specific needs and technical capabilities of the company.



TYPES OF USERS

The end-users of ERP software could be divided into these groups:

- Business users: Performs day to day operations e.g. data entry, operational reports etc
- Management or executives: Run reports and perform inquiries that would help them in decision making



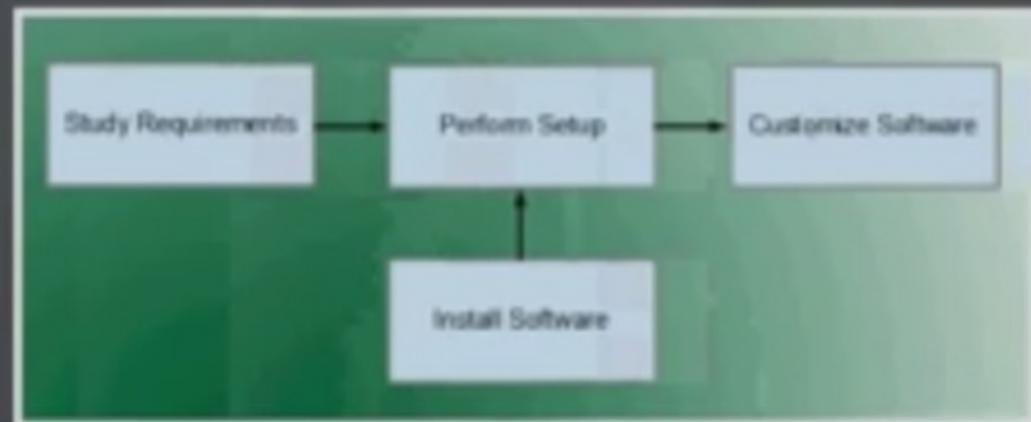
Business Users



Management

IMPLEMENTATION

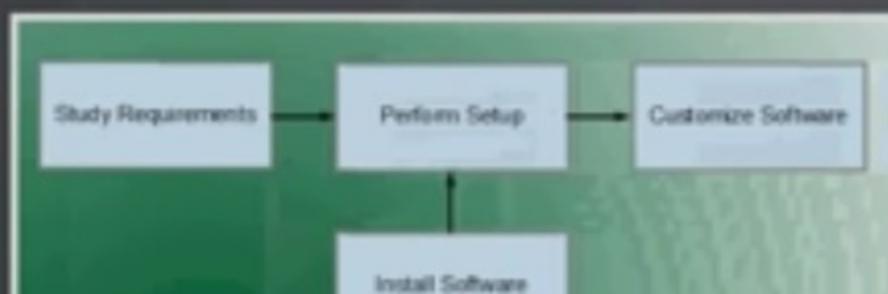
Term "implementation" is used to make the ERP software ready to be used by the company.



IMPLEMENTATION PROCESS

The process involves:

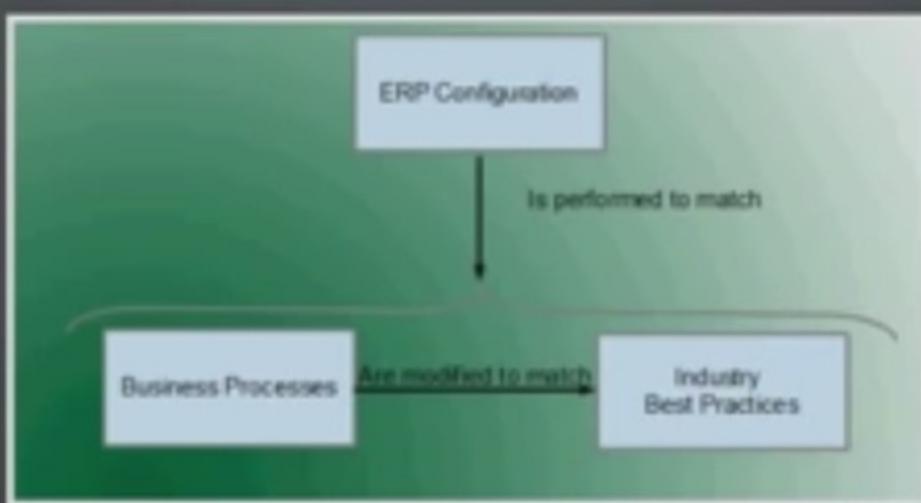
- Study the business requirements. Find out how the ERP system should be behaving.
- Setup or configure the software such that it starts working as per business requirements. By this time the software must be installed and available for setup.
- Fill the gaps between business requirements and the functionality offered by ERP software.



INDUSTRY BEST PRACTICES

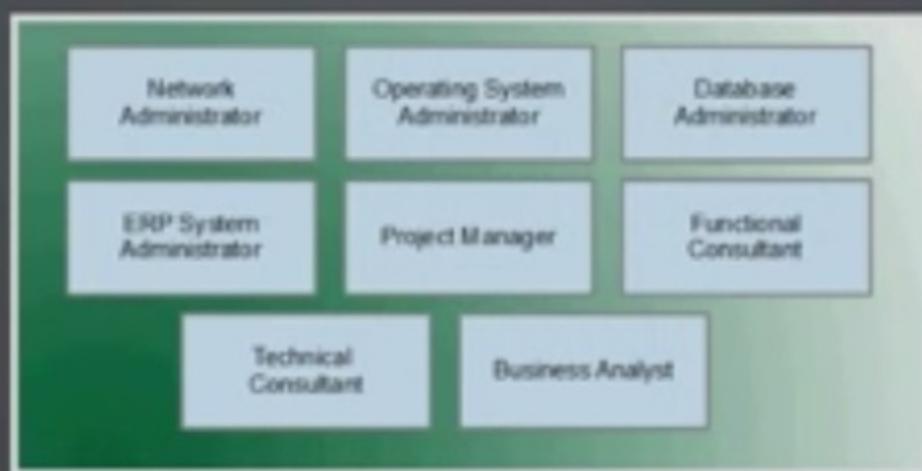
The software is configured to honor company's current business processes. However the company also alters processes where necessary, to bring them align to industry best practices.

Companies do take the implementation of ERP as an opportunity to streamline their business process.



ROLES IN A PROJECT

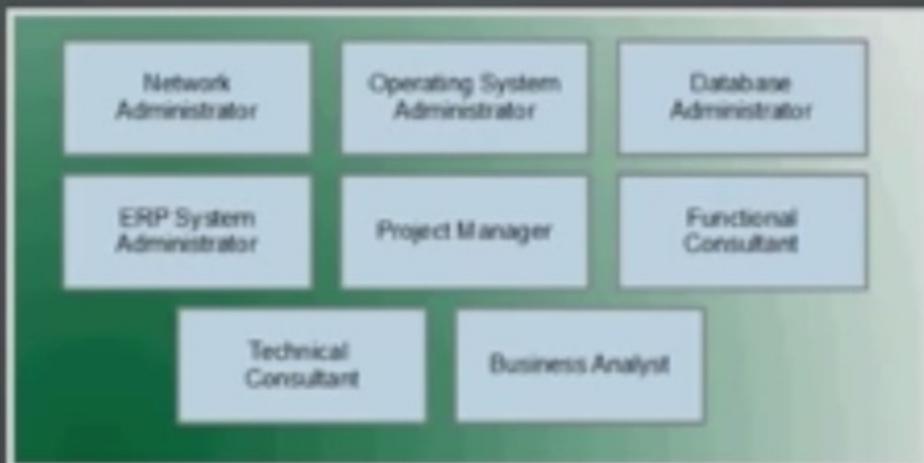
Various roles play part in a typical ERP project. A role may be filled by one or more people depending on the needs. Sometimes one person may be given more than one roles.



ROLES EXAMPLES

Here are important roles:

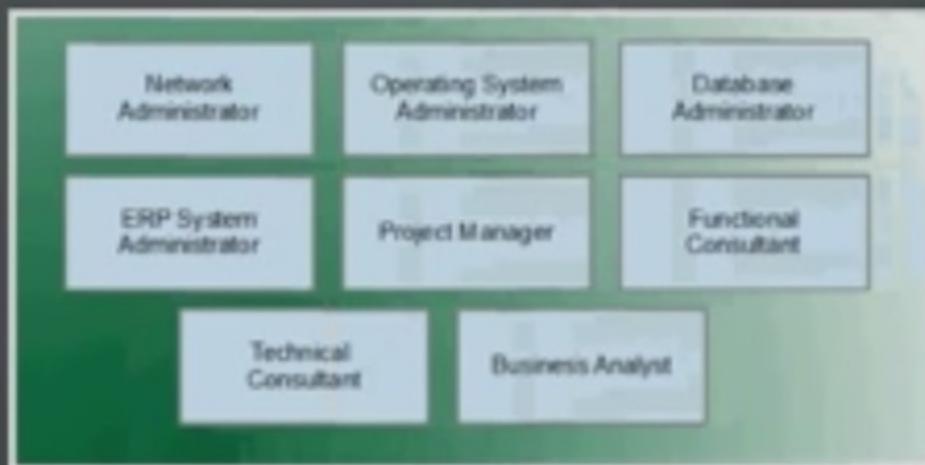
- Network Administrator (Usually 1)
- Operating System Administrator (Usually 1)
- Database Administrator (Usually a team)
- ERP System Administrator (Usually 1)



ROLES EXAMPLES

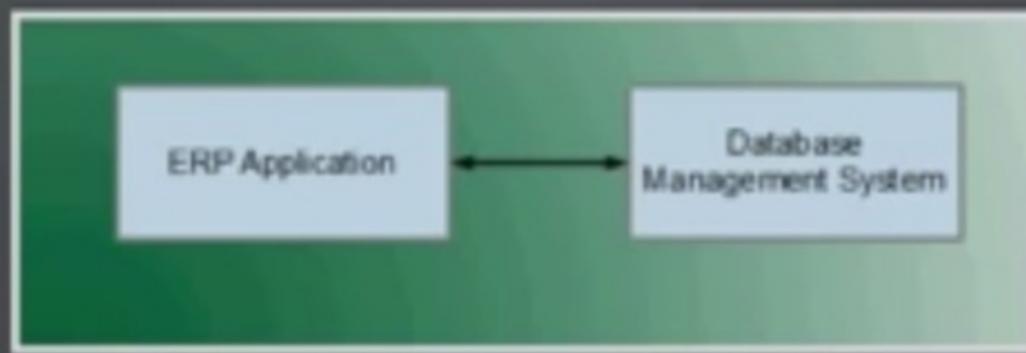
... Continued

- Project Manager (Usually 1)
- Functional Consultant (Usually a team)
- Technical Consultant (Usually a team)
- Business Analyst (Usually 1 per functional area)



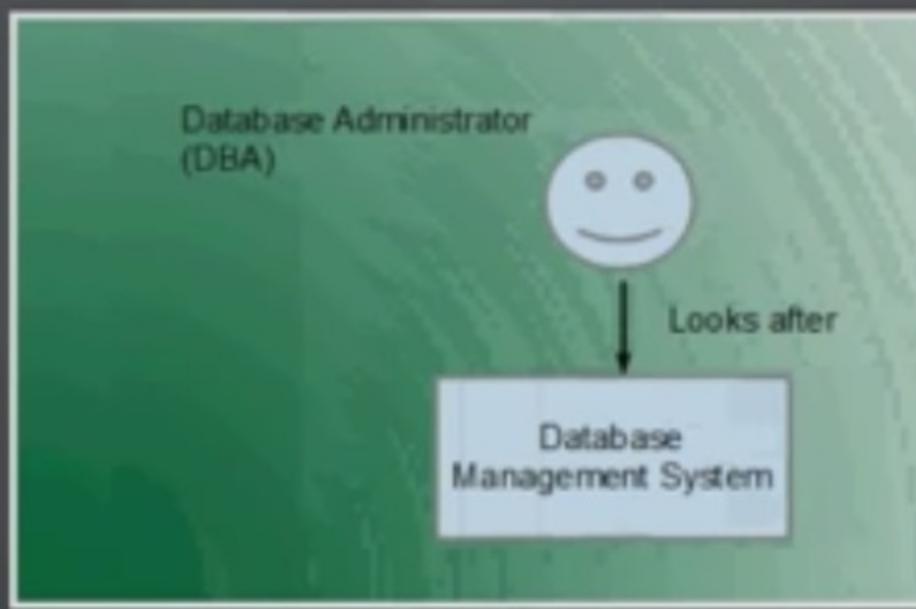
DATABASE MANAGEMENT SYSTEM

ERP software connects to a database software at the back end.
The data is managed in the database.



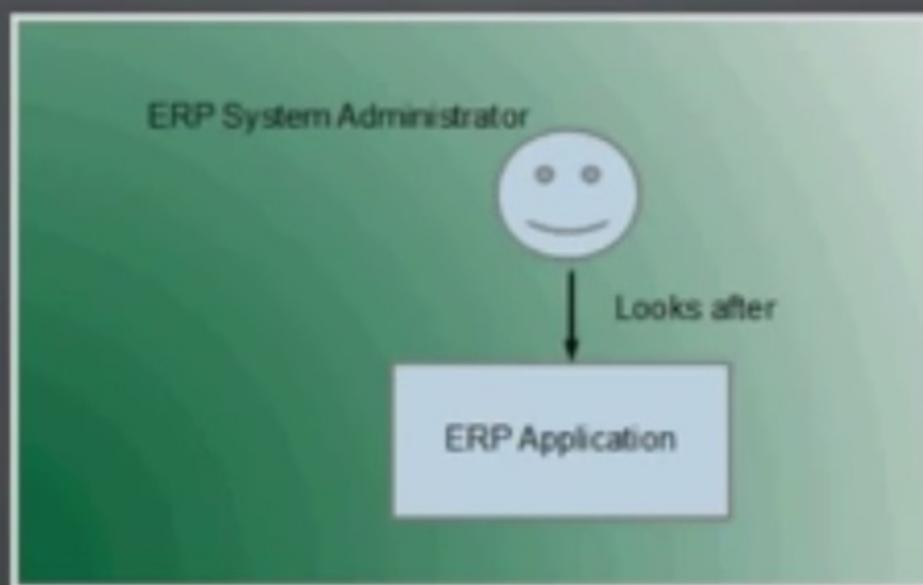
DATABASE ADMINISTRATOR

Database Administrator also known as DBA is the person who looks after the health of the database. He also performs installation of ERP software.



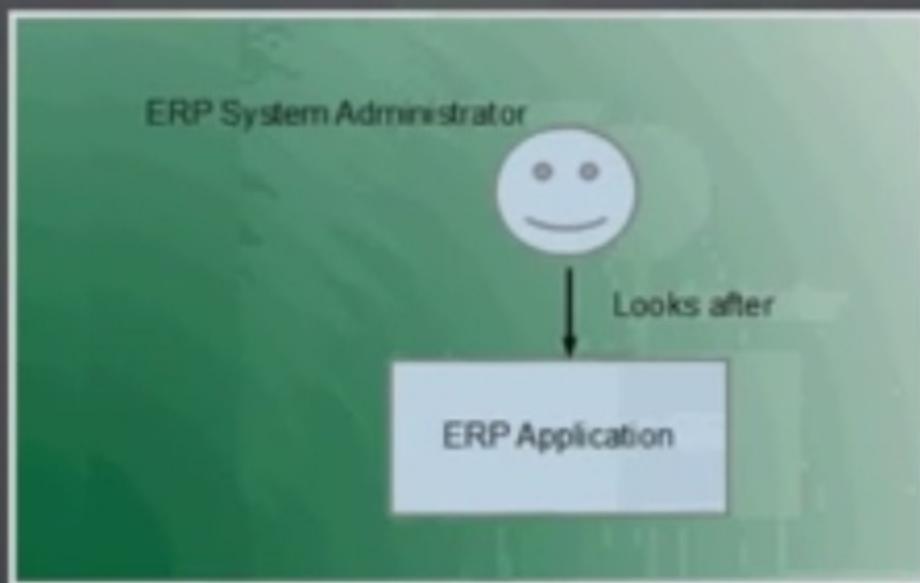
ERP SYSTEM ADMINISTRATOR

ERP System Administrator is the person who looks after the health of the ERP software.



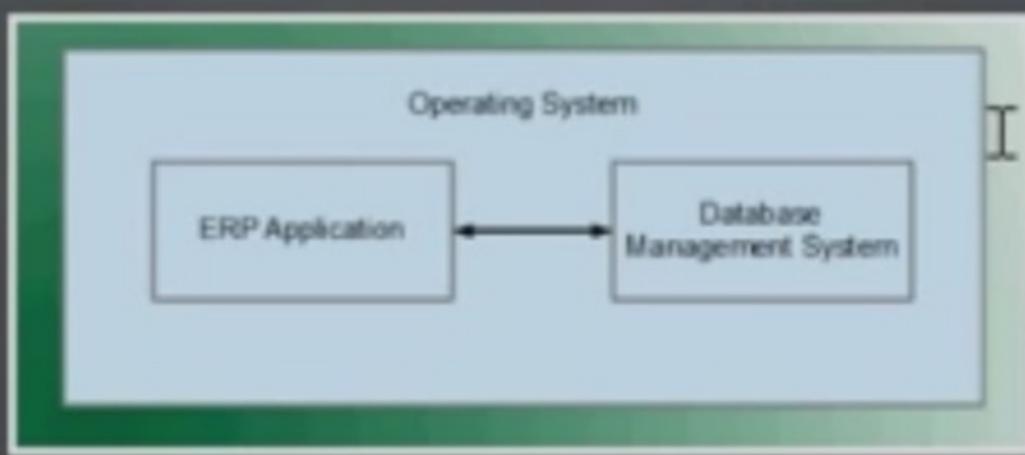
ERP SYSTEM ADMINISTRATOR

ERP System Administrator is the person who looks after the health of the ERP software.



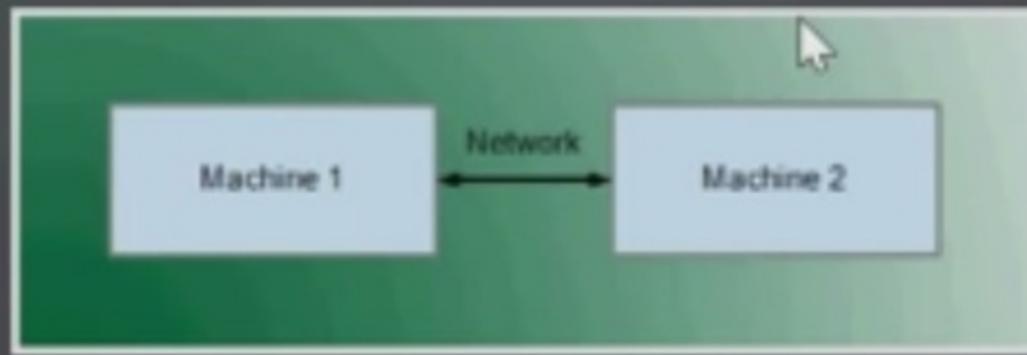
OPERATING SYSTEM

Both database and ERP software runs on an operating system like Linux, Unix, or Windows.



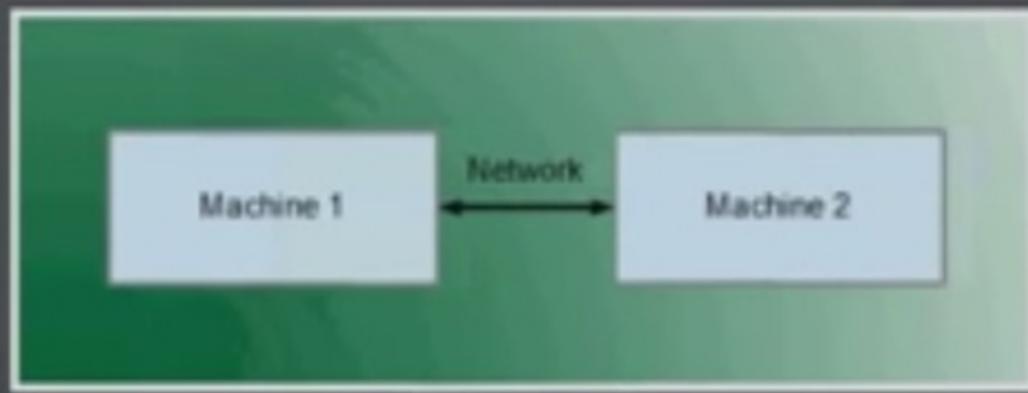
OPERATING SYSTEM ADMINISTRATOR

Operating System Administrator is the person who looks after the health of the operating system.



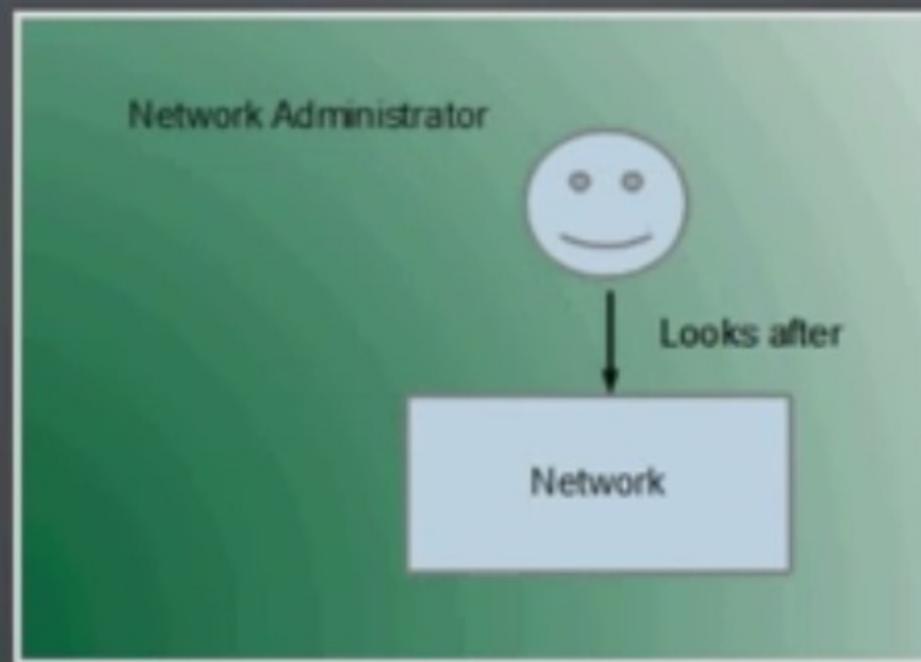
NETWORK

Network connects all the machines together in a system.



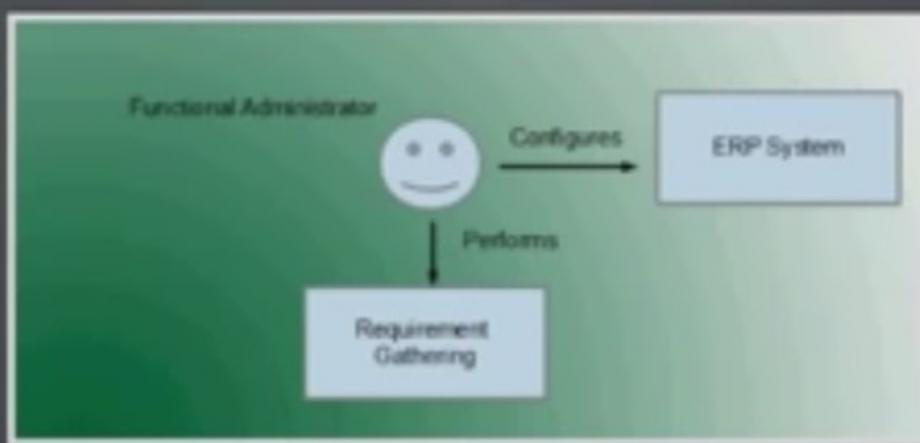
NETWORK ADMINISTRATOR

Network Administrator is the person who looks after the health of the network connecting all the computers together.



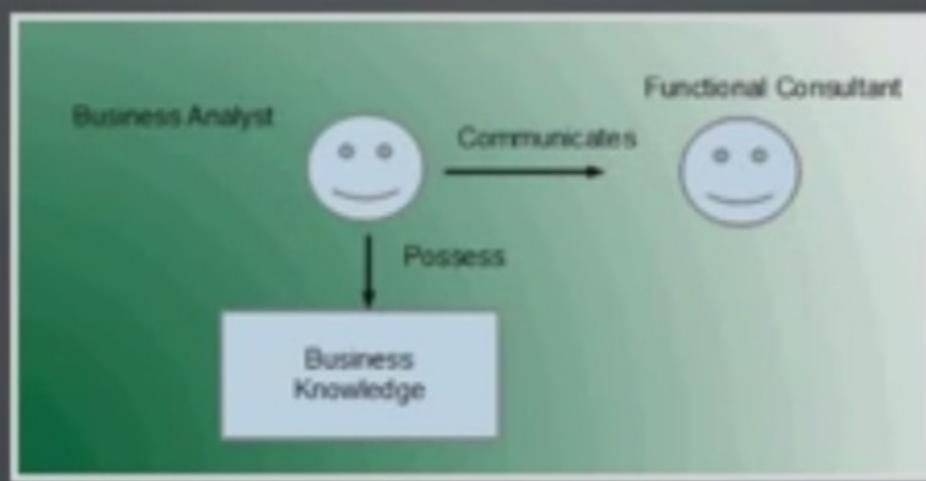
FUNCTIONAL CONSULTANT

Functional Consultant gathers the business requirements and performs ERP setup accordingly.



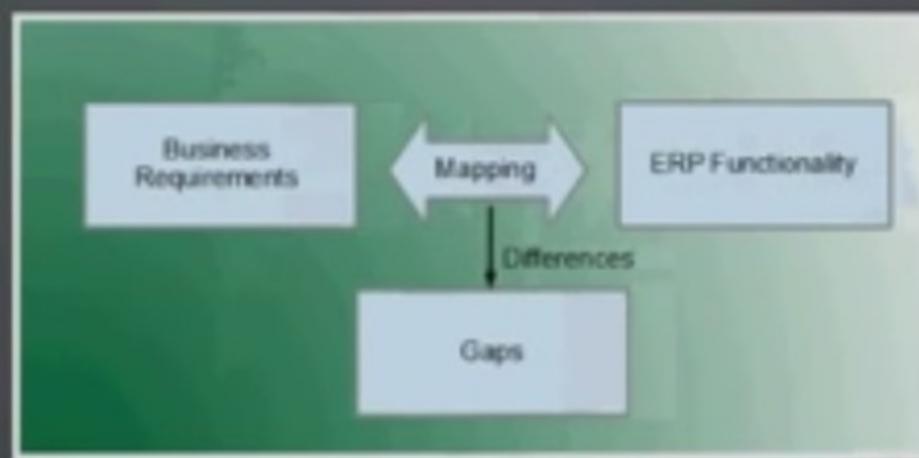
BUSINESS ANALYST

Business Analyst is the person who is an expert of business knowledge. He is in touch with the business users and verifies that the requirements clear to functional consultants.



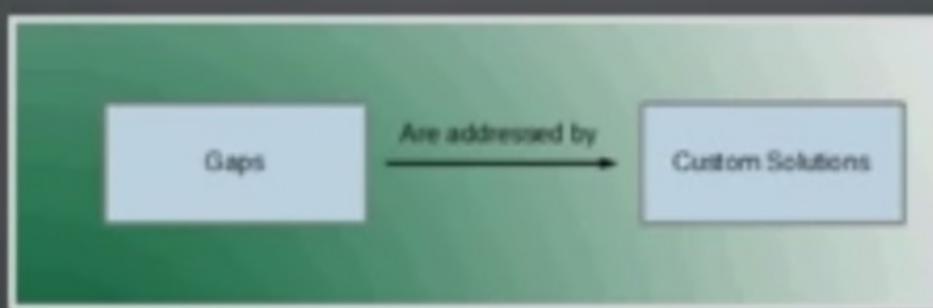
FUNCTIONAL GAPS

In almost all the cases some business requirements are so unique that the ERP system has no built-in functionality to handle those unique cases. The term "Gap" is used for such business requirements.



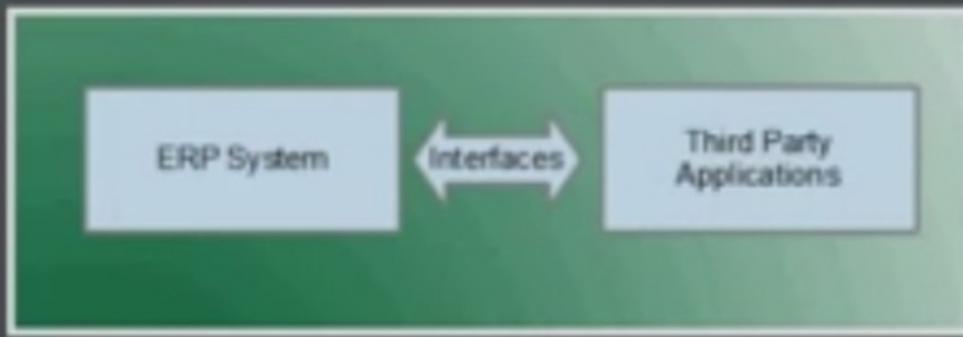
CUSTOMIZATIONS

This is where technical consultants come in. They modify the software by going under the hood and add the missing functionality e.g. new reports are created in the system that were needed by the business. This step is called customization or extension.



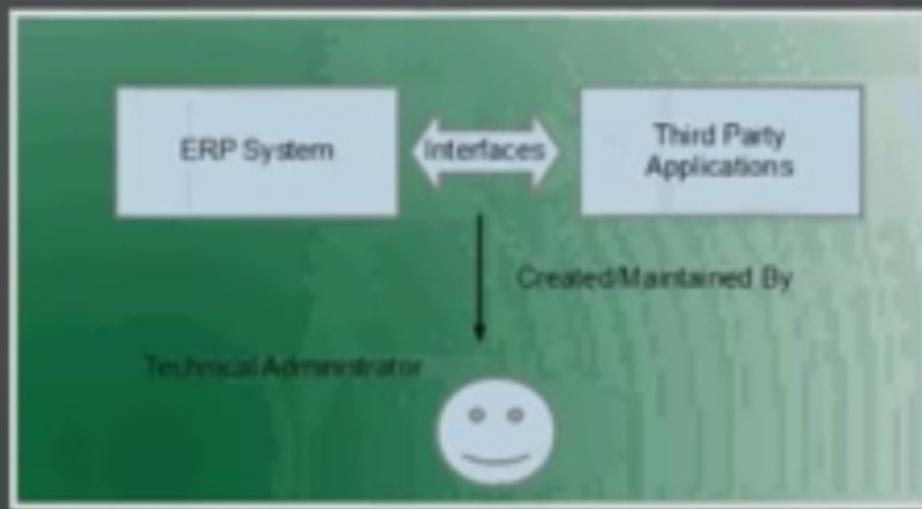
COMMUNICATION AMONG APPLICATIONS

In most cases ERP system talks to other third party system running within the same company or in an external company e.g. suppliers and customers.



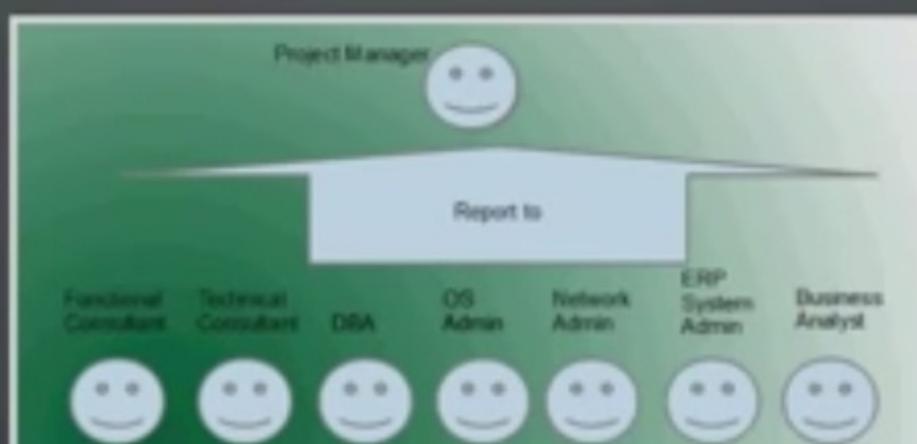
INTERFACES

Technical consultants assist in writing programs that help communicate information back and forth between the ERP software and the third party software either within the company or outside it. Programs that aid communication between two software is called "interface".



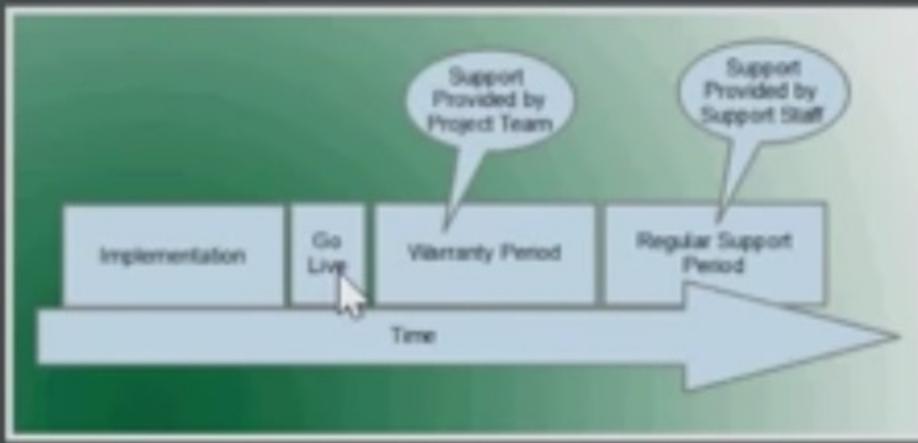
PROJECT MANAGER

Project manager is the person who is managing the project. All other team members report to the project manager during the project. Most members also report to their regular bosses as well. For example, a database administrators will be reporting to the manager or director of the IT department as well as to the project manager during the life of the project.



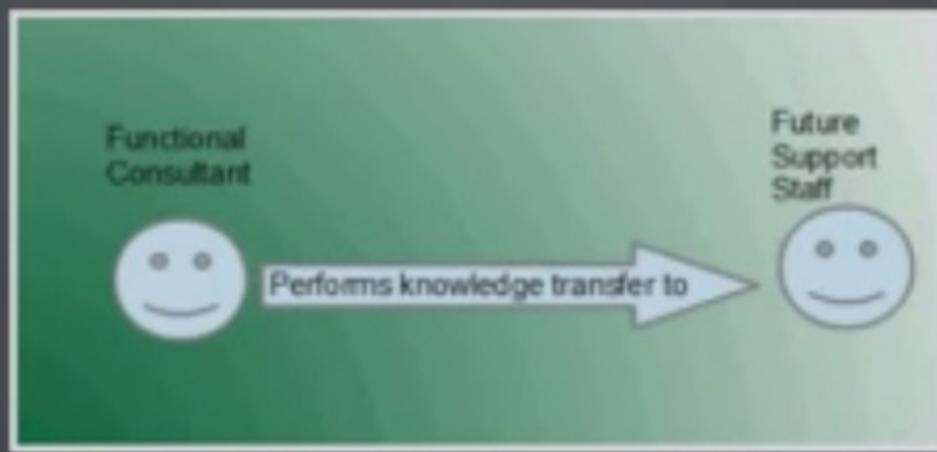
WARRANTY AND SUPPORT PERIODS

After the go-live, warranty period begins. Any problems that come up will be handled by the implementation team. After that the support role will be transferred to another team, usually permanent staffs or a third party company specialized in support.



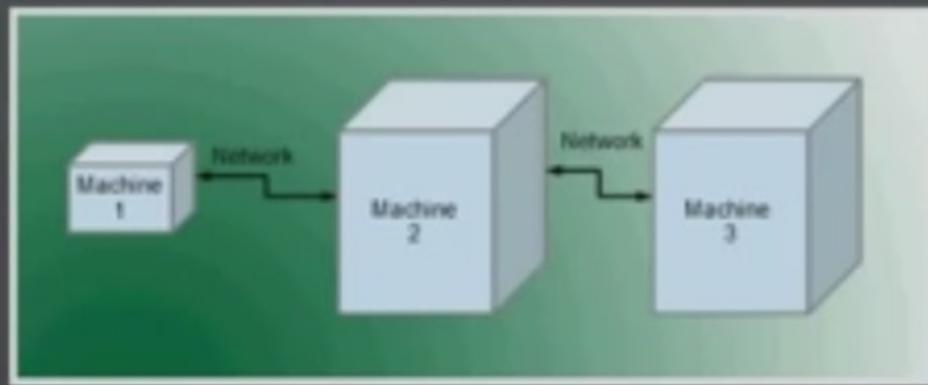
TRAINING

Consultants would provide training to the new person or team who will be providing support.



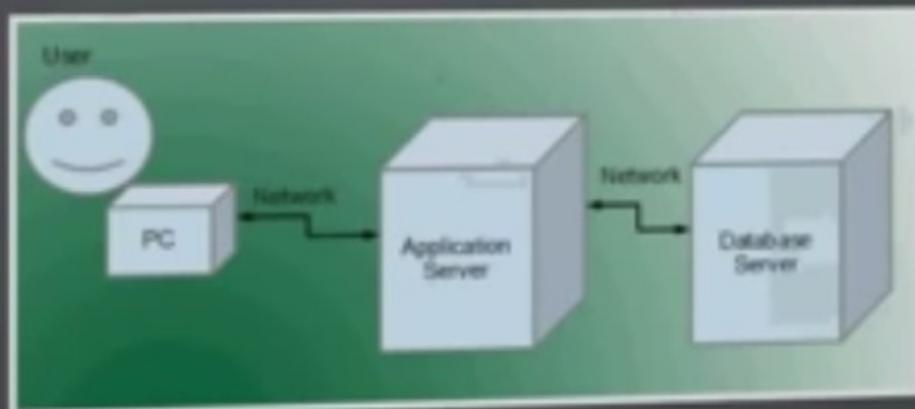
MULTIPLE SERVERS

Usually there are few computers, called servers, that are connected and work together to produce workable environment for ERP systems.



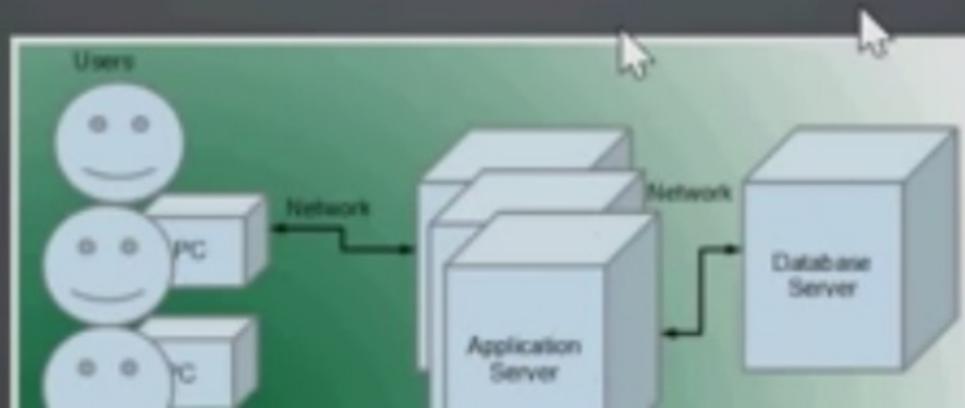
THREE TIER ENVIRONMENT

One computer hosts the application (the actual ERP software) and another one hosts the database. Users connect to the computer running ERP System through their browsers. This is called a three tier environment.



LOAD BALANCING

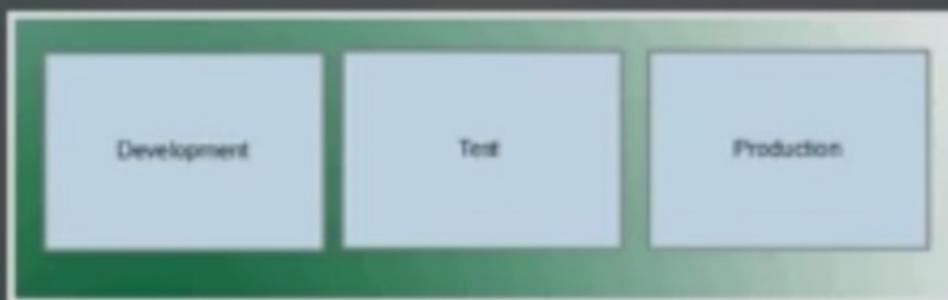
In an environment where numerous users connect, there could be even multiple application servers installed, communicating with the same database server. This way the load is shared among various machines. The term used for this setup is "Load Balancing".



ENVIRONMENTS

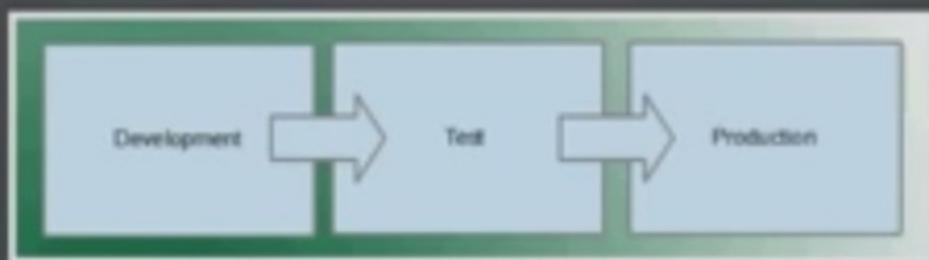
Companies running ERP systems usually keep three sets of environments:

- Development
- Test
- Production



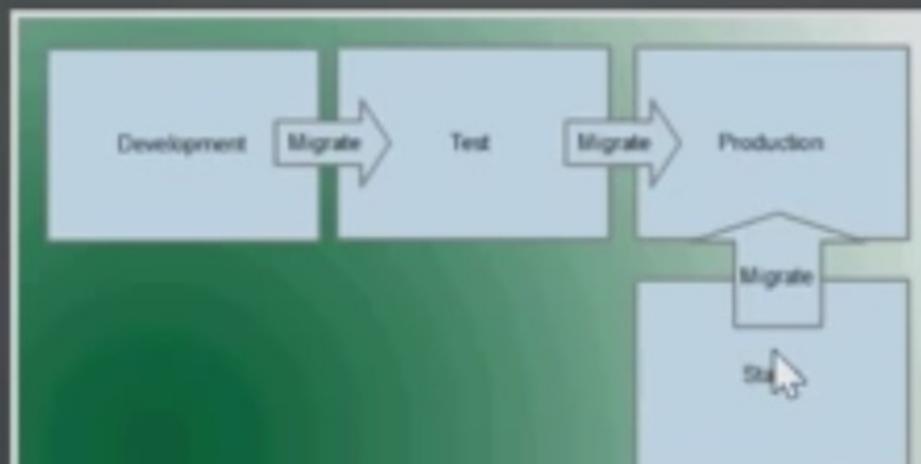
TRANSPORTING SETUP

The configuration is performed in the development environment first by the team. The setup is copied over to the Test environment where users perform their testing. Once users are happy the setup is copied to the production (Go-live), where the system is actually used to manage day to day operations of the company. The term used for copying configuration from one environment to the other is "Transport".



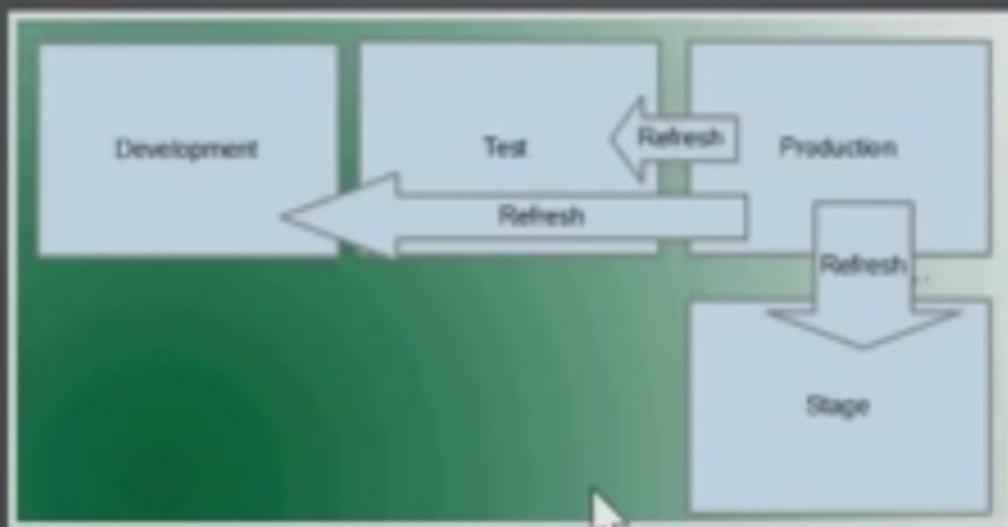
STAGE ENVIRONMENT

In some companies few other environments are also maintained
e.g. "Stage" where troubleshooting is performed, and bug
fixes/patches are applied and tested first before moving them to
production.



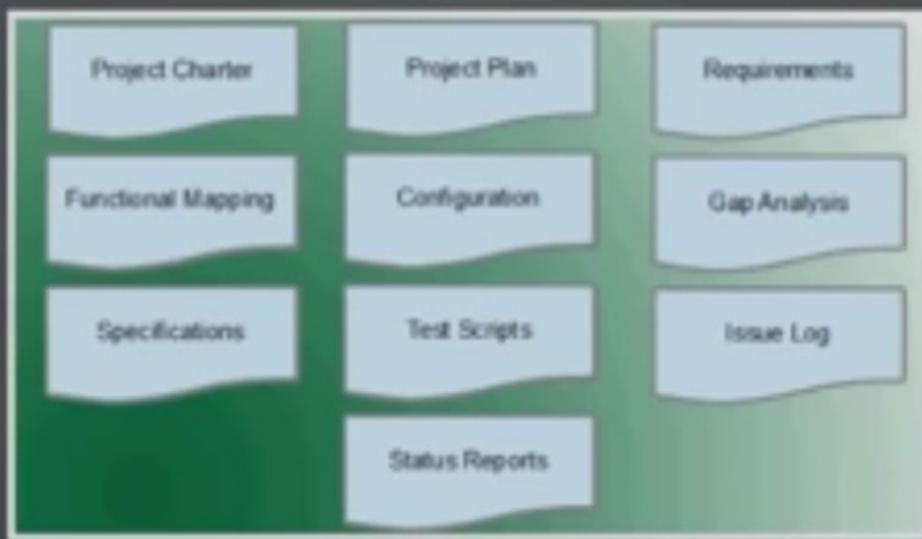
REFRESH

All environments are periodically refreshed with recent production data.



PROJECT DOCUMENTATIONS

Documents are created through the project and are stored in the central place for the project.



EXAMPLES OF DOCUMENTS

Some examples are:

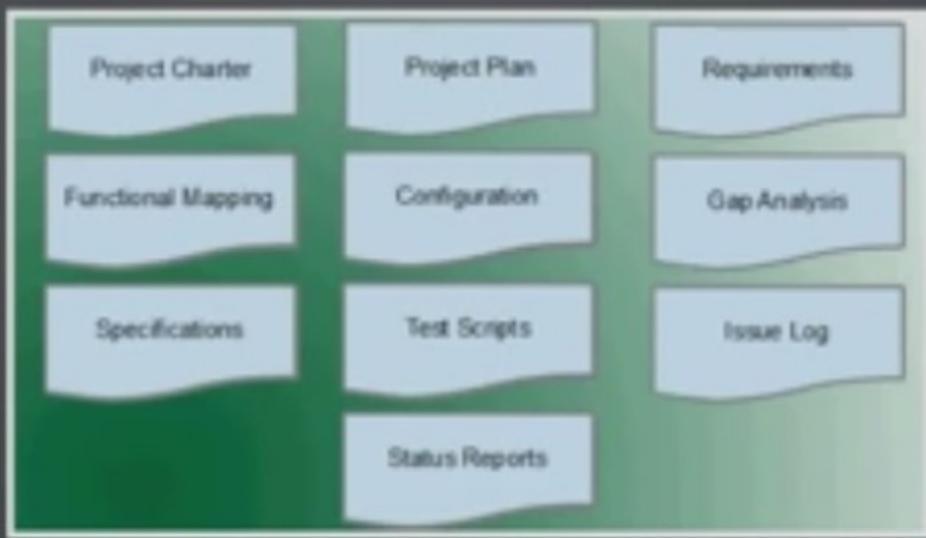
- Project Charter by Project Manager
- Project Plan by Project Manager
- Requirement Gathering document by Functional Consultant



EXAMPLES OF DOCUMENTS

... Continued

- Functional Mapping by Functional Consultant
- Configuration document by Functional Consultant
- Gap Analysis document by Functional Consultant



EXAMPLES OF DOCUMENTS

... Continued

- Functional/Technical Specifications by Technical Consultant
- Test Scripts by Functional Consultant/Business Analyst
- Issue log by Project Manager
- Period Status Reports by all members



PROJECT CHARTER

Document: Project Charter by Project Manager

Contents: What is involved in the project from a high level perspective, which business needs are behind this project, what benefits it will bring, who is sponsoring the project, what are the risks, what are dependencies and assumptions etc.

Project Charter

PROJECT PLAN

Document: Project Plan by Project Manager

Contents: Tasks that will take place during the project.

Project Plan

REQUIREMENT GATHERING

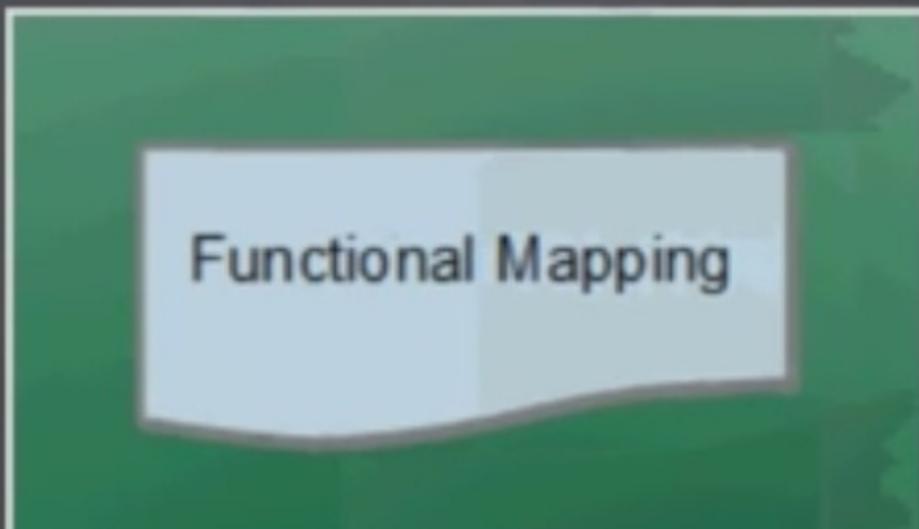
Document: Requirement Gathering document by Functional Consultant

Contents: How the new system should be implemented.

Requirements

FUNCTIONAL MAPPING

Document: Functional Mapping by Functional Consultant
Contents: Mapping of requirements to the ERP software features; Which features should be enabled in ERP.

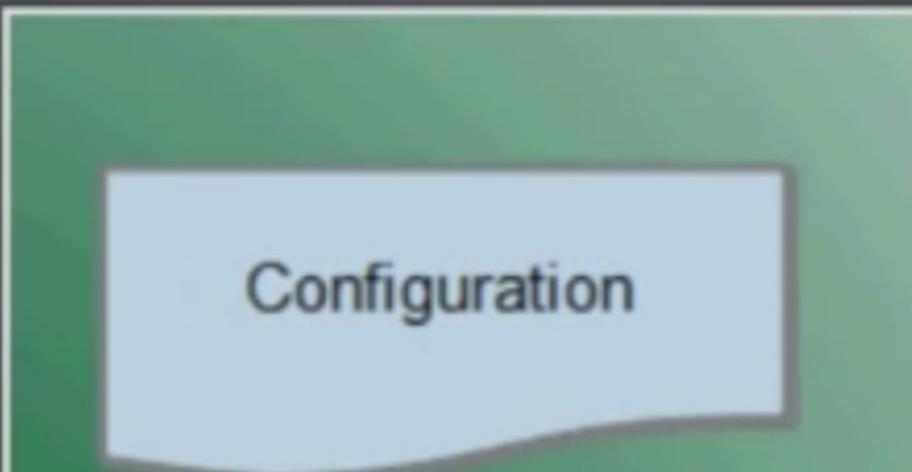


Functional Mapping

SYSTEM CONFIGURATION

Document: Configuration document by Functional Consultant

Contents: How the new system will be configured so that the required features are available.



Configuration

GAP ANALYSIS

Document: Gap Analysis document by Functional Consultant
Contents: Which requirements are not matched to any of the available features in ERP.

Gap Analysis

SPECIFICATIONS

Document: Functional/Technnical Specifications by Technical Consultant

Contents: How custom developed features will work.

Specifications

TEST SCRIPTS

Document: Test Scripts by Functional Consultant/Business Analyst

Contents: What steps users will perform during testing. Test Results are also captured by the Business in the Test Scripts document.

Test Scripts

ISSUE LOG

Document: Issue log by Project Manager

Contents: What problems came up and how they were handled

Issue Log

STATUS REPORTS

Document: Period Status Reports by All

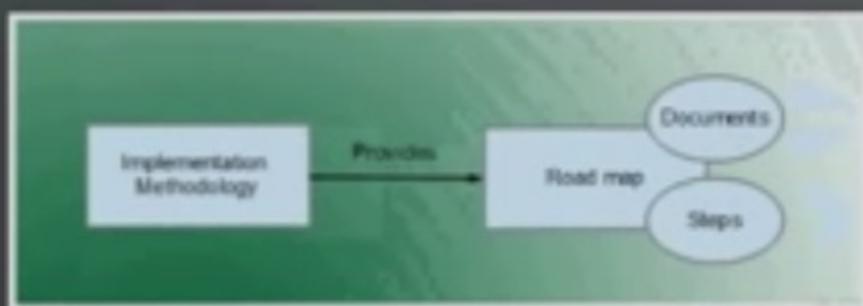
Contents: What was completed last week and what is due next week

Status Reports

IMPLEMENTATION METHODOLOGY

The project teams usually follows an implementation methodology which provides a roadmap through the project. A methodology dictates:

- Which documents will be created at which point
- How the documents will look like (Templates are provided)
- What will be the sequence of configuration tasks.



STATUS REPORTS

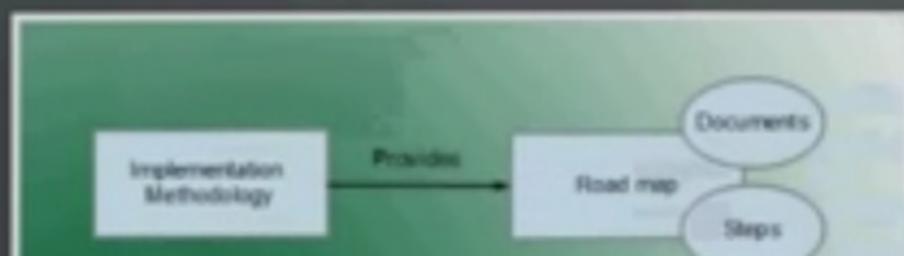
Document: Period Status Reports by All
Contents: What was completed last week and what is due next week

Status Reports

IMPLEMENTATION METHODOLOGY

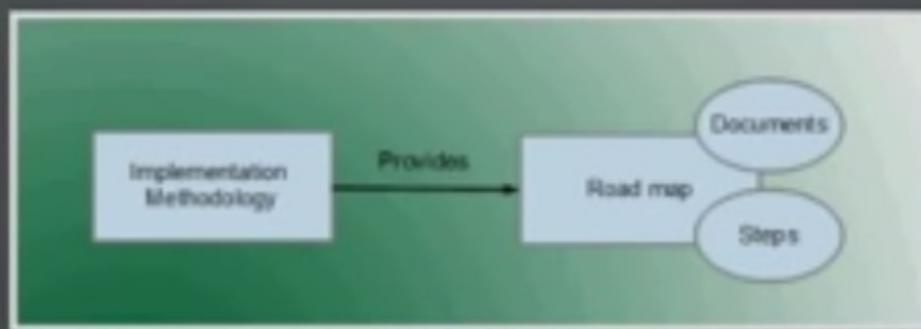
The project teams usually follows an implementation methodology which provides a roadmap through the project. A methodology dictates:

- Which documents will be created at which point
- How the documents will look like (Templates are provided)
- What will be the sequence of configuration tasks.



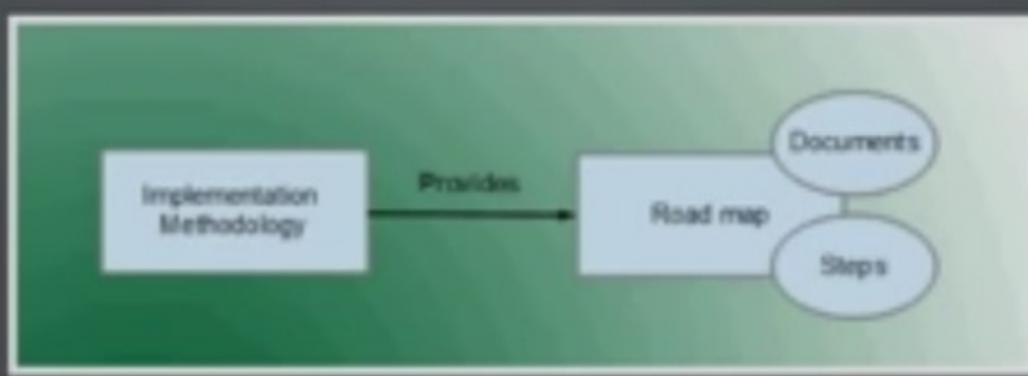
IMPLEMENTATION METHODOLOGY AND PROJECT PLAN

The steps are incorporated in desired sequence, as dictated by the methodology, in the overall project plan managed by project manager.



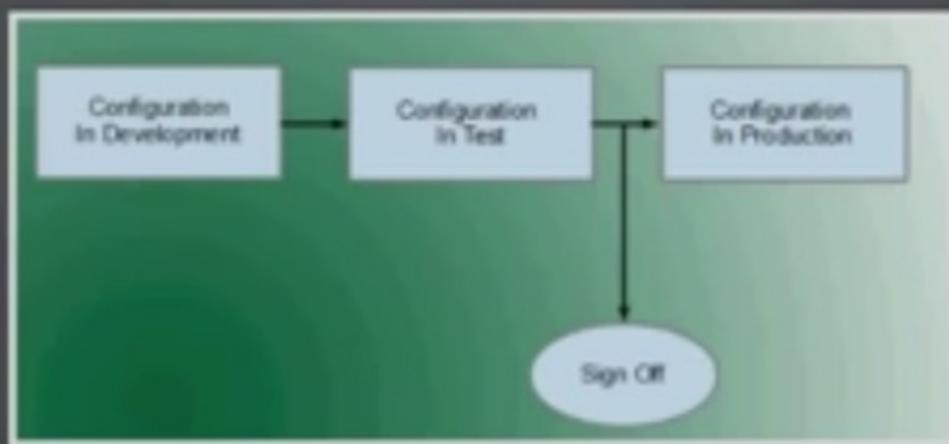
PROPRIETARY METHODOLOGIES

Large and reputed consultings firms usually have their own proprietary methodology that they follow.



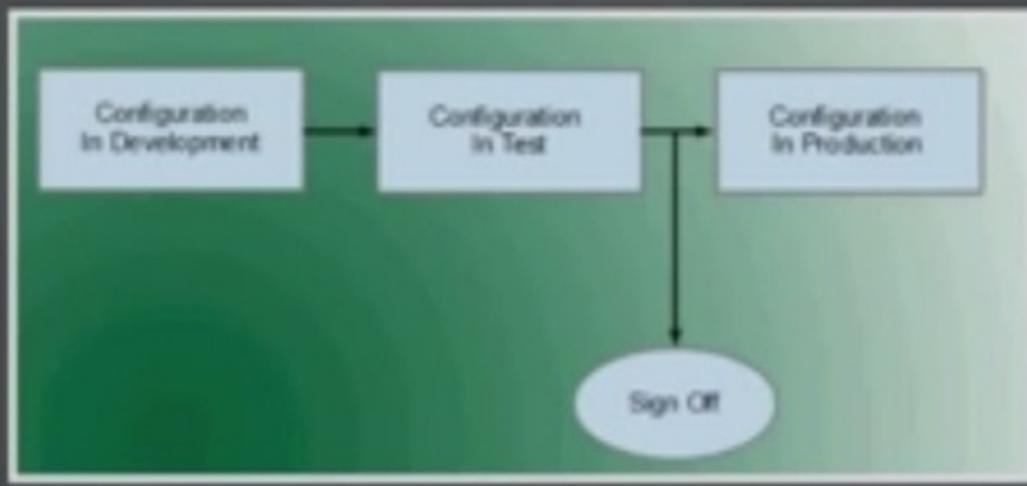
SIGN-OFF

Written sign-offs are required from the business at various stages e.g. before moving configuration from Test to Production.



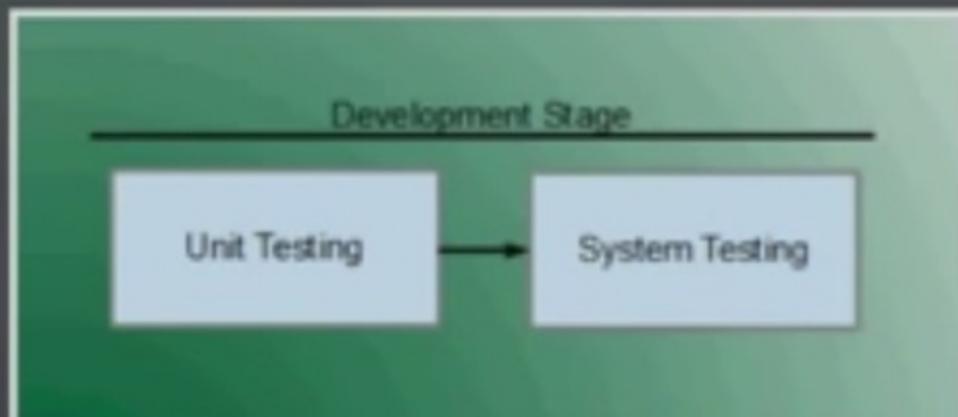
SIGN-OFF

Written sign-offs are required from the business at various stages e.g. before moving configuration from Test to Production



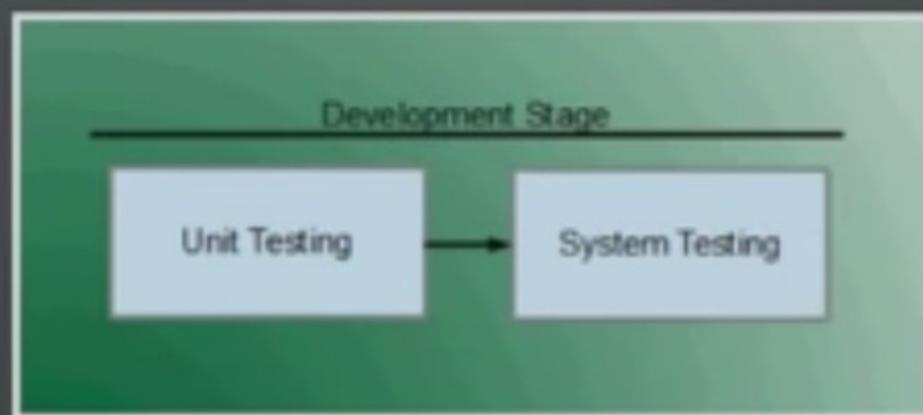
UNIT TESTING

Consultants perform unit testing and system testing during development stage. Unit testing refers to testing of one module (or unit) individually. The focus is on the functionality of the modules.



SYSTEM TESTING

System testing refers to the testing of the whole system (all modules together). The focus is on the integrity of the system as a whole e.g. if modules are communicating with each other properly. The testings are performed on development environment, however a separate test environment could be requested as well for this purpose.



USER ACCEPTANCE TESTING

User Acceptance Testing (UAT) is a mandatory testing. Here users drive the system. The consultants train and guide the users. The focus is to verify whatever was promised, is delivered or not. At the end of the testing users must provide a sign-off. All outstanding problems need to be fixed. The testing takes places in Test environment dedicated for this purpose.

