Introduction to Information Technology

BBA-210-B

Unit-I

Q1. Explain Information Technology? What are the IT infrastructure Management challenges?

Q2. Impact and future of IT in Business Organization?

Q3. What are the IT infrastructure Management activities?

Unit-II

Q1. Explain Multimedia components and its applications?

Q2.(a) Structure of HTML Document.

   (b) HTML Form.

   (c) HTML hyperlink.

   (d) HTML Table with examples.

   (e) HTML Frames.

Unit-III

Q1. Define Website? What is the planning process of a website?

Q2. How to Evaluate a Website Performance?

Unit-IV

Q1. What do you mean by ERP? What are the benefits and applications of ERP?

Q2. Explain SCM? What are the decisions and principles of SCM?

Q3. Define Data Warehousing? What types of Architecture in DW? What are the advantages and disadvantages? And where we need DW?

Introduction to Information Technology

BBA-210-B

Unit-I

Definition & Meaning

Information technology is the combination of telecommunication and computing to obtain process, store, transmit and output information in the form of voice, picture, text or graphics.

It includes the following:

1. Software application in the operating system
2. Web-based information and application such as distance learning
3. Video equipment and multimedia products
4. World wide web
5. Electronic devices

I.T. includes the processing of information by a computer.

Features

1. It makes the education system simpler, easier and widespread.
2. Participation of the public in governance and policymaking.
3. Fast electronic development
4. Technology helps the police in catching criminals
5. Highly beneficial for common people to access their rights.
6. Increase the happiness and prosperity for the society

Pre- Requisites of information:

1. Information is processed data on e=which decision are taken and subsequent action are performed.
2. For decision to be meaningful and useful the information must process the attributes that are as follows:
   2.1. Accurate: to be useful information must be accurate at all level because all further development is based on available information.

2.2. Timely: information is appreciated only if it is available on time.

2.3. Complete: complete information tends to be comprehensive in covering the issue or topic of interest

2.4. Precise: it must also be precise containing all the essentials element of the relevant subject area.

2.5. relevant: information is relevant if it can be applied to a specific situation problem or issue of interest

Need for information technology

1. Decision making

2. Communication

3. Knowledge

4. Productivity

Components of information technology:

1. Hardware: it consist of the physical components that form a computer system for ant computer gadget

2. Software: it is the set of instructions in the form of program which controls the sequence in operation

3. Data: data are an unprocessed collection orientation of raw in a manner stable communication, interpretation and processing

4. People: they perform various functions with the help of hardware and software to produce the desired output using I.T.

Impact of I.T on business organization

1. It provide business scope to analyze data and plan business strategies accordingly

2. It had a major impact on various aspects of business some of these are

2.1: Cloud Computing: utilize IT to capitalize on its ability to provide improve time and resources many for business. A good internet connection, wifi connectivity is important to this

2.2: Automation of business process: it helps in development automated process for business, processes like billing, tracking matrix collecting customer data, monitor certain process can be automated easily with the help of numerous software

2.3: Working remotely: implementation of IT provides the ability to remotely access companies' network.

2.4: Mobile technology: with arise in popularity of implementation of mobile technology has gain ground quickly.

2.5: protecting informs: it provide the right resources to store information in such a way that insure max protection, virtual storage system can keep information safe by allowing a limited no. of access these.

2.6: providing customer satisfaction: it provide the right resources to store information in such a way that customer become fully satisfied. a happy customer base is important for growth of business

2.7: Management of resources: it plays a vital role in management of resources effortlessly by introducing a wide range of feasible solution

2.8: open source software: IT has paved the way for various open sources software that allow use or changes of certain rules of various organization

IT infrastructure

It consists of physical components & services that are required by user to support business function. The trump IT infrastructure refers to all of the components and element that support management and access function for data and information along with other services.

Three categories of IT infrastructure are:

1. System Management: it cover a quite range of key activities within overall context of IT infrastructure management, as it include the administration of all IT assets.

   System management activities include security focused initiative such as intrusion detection and prevention. Law of management, configuration management, workload automation and integration of cloud based application and services all are under it. A chief information officer or chief technical Officer.

2. Network management: is discipline of managing security networks. IT security & operation analyst manager and configure network to ensure that resources are properly allocated to application. it also include an element of security that protect against unauthorized access and data bridges

3. Storage management:
   a. data storage space is limited and valuable asset for IT and business organization.
   b. IT infrastructure management is the oversight of data storage technologies and resources such as virtualization, storage, data compression and data security.
   c. data compression & automatic storage can reduce data processing time & improve performance of data centre.
   d. automation and virtualization techniques can enables business to quickly reallocate storage resources where needed

Components of IT infrastructure:

IT infrastructure managers are responsible for design, implementation, maintains and retirement of each of these IT infrastructure element

1. Computer hardware platform: it include such as desktop computer i.e. client machine along with server machines and main frames

2. Operating system platform: the operating system that run of on computer hardware platform. it includes windows, linex etc.

3. Software application: this include application that are critical for managing service delivery enterprise level, such as SAP, ORACLE, MICROSOFT

4. Data management and storage: IT organization may be responsible for managing physical component of data servers along with software components used to organize data basis.

5. Networking and tele communication platform: it covers everything from virtual network software (window server) to the physical telecommunication infrastructure

6. Internet: Website that is rooted on internal or external server's cloud based web application. Web software development and web hosting server are all part of the infrastructure.

7. Consulting & system integration service: IT organization in business that uses legacy system may be engaged in implementing new IT infrastructure to update system with new applications.

IT infrastructure management challenges and solution:

We have listed some of top infrastructure management challenge that your organization may face in the future and there probable solutions

1. Lack of powerful computing platform:

The major challenge in growing processing power of computer has been the lack of energy and space to power super computers

Solution: A simple solution to this challenge would be to employee new general purpose graphical processor or multicourse platform.

2. Data acquisition problem:

Firewalls which protect emails, applications & web browsing can cause important packets losses in the internet protocol networks. This can result in important data loss and reduce the network speed considerably.

<u>Solution</u> – IT manger need to look out for high performance computing resources with huge data nets and a secure bridge to collaborate with dispersed scientific teams.

3. <u>Compute Management and provising</u> :-

One of the biggest challenge for IT managers i) the huge amount of data that is available today. High performance computing of these large datasets will require virtualization and automation to avoid adding more people to these processes, major challenge for IT manager is to implify these task and speed up the processing.

<u>Solution</u> – These can be solved by using distributive system. It consists of virtualization of sources and supports computation across multiple administrative demands and helps in speeding up the processing of complex tasks.

4. <u>Lack of efficient data storage architecture</u> :-

Cloud storage is a cost effective and scalable alternative for data storage for IT Manager, it doesn't provide the required data storage architectures.

<u>Solution</u> – To optimize cloud storage architecture according to application which12 being deployed.

5. <u>Dearth of ways to improve data analytics</u> :-

Currently there are not many methods in place which can be used by IT mangers to separate quality data from the huge amount of datasets.

<u>Solution</u> – Best solution to solve this problem would be to have an ideal system which would consist of a standards based framework facilitating easy data transfer between different tools and layer. This analytics would be used for industrial control system.

6. <u>Improper network and connectivity</u> :-

For any organization to work smoothly it is important there is a good and reliable network in place. New software based method and network architecture design are required for optimization of data.

<u>Solution</u> – Ability to migrate the IP address would help to allow application services to be migrated to other hardware. Another solution would be to add intelligence to the wired as well as Wi-Fi network connections.

Introduction to Information Technology

BBA-210-B

Unit-II

MULTIMEDIA

It is a set of more than one media element such as text, graphics, sound, animation, movies used to produce a more structured way of communication.

A medium is something that a presenter can used for presentation of information. There are too basic ways to present some information.

1. <u>Unimedium Presentation</u> :- In this case, the presenter use a single medium to present information. Eg – Radio
2. <u>Multimedia Presentation</u> :- Presenter uses more than one medium to present information. Eg- T.V.

Multimedia Computer System :-

It is a computer having capability to integrate two or more types of media (Audio, Video, Text, Graphics, Animations) for generation, storage, representation, manipulation and access of multimedia information. Due to this, multimedia computer system requires:-

1. Faster C.P.U.
2. Larger storage devices
3. Larger main memory
4. Good graphics Terminals
5. Audio Input- Output devices

Multi Media Components :-

Modern computer system use commonly following media for storage, access and transition of information.

S.No.	Components	Description	Hardware	Software

1.	Text	Text information contains alpha numeric and special characters. Modern computer have text processing capability to deal with text information technology	1) Keyboard 2) Electronic writing pads 3) O.C.R 4) Monitors 5) Printers	1)Text editing 2) Text styles 3)Text searching 4)Hypertext 5) Text import and export
2.	Graphics	Graphic deals with tools and technologies for generating representing picture with a computer It is a important because a picture is a powerful way to present information	1) Locatioin device 2) Flatbed co-ordinate digitizer 3) Scanner 4) Camera 5) Computer screens 6) Plotter	1) Drawing, painting software 2) Screen capture software 3) Clipart 4) Graphics importing 5) Software support for high resolution
3.	Animation	Deals with tools and technologies for generating sequencing, displaying a set of images (frames) to create an effect of visual change or motion similar to a movie film (video). It requires displaying of 25-20 frames per second	1) Image generations tools and devices 2) Computer monitor with image displaying capability 3) Graphics acceleration board	1) Animation creation software 2) Animation clips 3) Animation files importing 4) Software support for high resolution 5) Recording and playback capable 6) Transition effects
4.	Audio	Deals with tools and technology for synthesizing recording and playing of audio or sound with a computer	1) Sound board with AID and DIA converter 2) Connecter for speaker or	1) Audio clip 2) Audio file import 3) Software support for high

			headphone 3) Input device for audio input to record human voice or music 4) Output device for audio output to listen to record sound 5) MIDI devices 6) Sound editors 7) Audio mixer	quality sound 4) Recording and playback capability 5) Text to Speech conversion software 6) Voice recognition software
		Sound enables us to understand certain information much better		
5.	Video	Deals with tools and technologies for recording and displaying sequence of image (frame) at reasonable speed to create an impression of motion It display 25-30 frames per second.	1) Video camera 2) Video monitor 3)Video board with A/D and DIA converter 4) Connector for video camera 5) Video editors	1) Video clips 2) Recording and playback capability

Multimedia Applications :-

1. Business
2. Marketing and Advertisement
3. Web application

Multimedia has almost enumerable variety of application. They are used in home entertainment system, powerful educational tools and in business world.

Application of Multimedia in Business :

1. Training, Information and Promotional materials, sales presentation and point of sale displaced that allow for customer interaction and communication both within an outside the organization are all commons application of multimedia in business world.

2. Business Communication such as employee related communication, product promotion, customer information and reports for investors can be presented in multimedia form.
3. Video conferencing resembles on office meeting.

Application of Multimedia in Marketing:

1. When animation and graphic design are used to sell products or services then it is known as multimedia advertising.
2. Multimedia advertising consist of website design, website hosting, internet marketing SEO, E-Mail, DVD's of marketing campaigns, video and online advertising, to get your company and product known.
3. New multimedia advertising strategy comprises of following
   a. SMS text Advertising – It is a quick and easy way of marketing to mobile phone users. Regardless of business, wholesale, online or offline, retailers, network or traditional marketing, Text message advertising will increase popularity.
   b. Mobile Webpage Builder – Automatic build and publish your mobile app from all your SMS text messages that you send to all your customers.
   c. Optimization of Ads. : Numerous online venues where you can setup free business promotion and listing.

Web application of Multimedia :-

1. Internet telephone :- Web based audio can also be used for internet telephone service, sometimes called internet telephony. This allow users to talk other people over internet.
2. Simulation :- Another important application of multimedia is to create simulation which are computer based models of real life situation. It often replace costly and sometime dangerous such as in Chemistry, aviation and medicine. It is used in gaming industry. Virtual reality is the simulation of a real or imagine environment.
3. Voice over IP(Internet Protocol) :- VOID is a simple transaction of voice traffic over IP based network.

Main features of HTML :-

1. Linking:- Data can be linked in HTML this allows user to move from one to another page, from top of the page to bottom of page by a mouse click.
2. Portability:- HTML is a platform independent language
3. HTML is a simple, easy to use and understand.
4. HTML tags are predefined and are not case sensitive.
5. All HTML tags are typed inside the angular brackets and text between these brackets are called elements.
6. The attributes are always specified in opening tag, which provide additional information about that tag.

HTML elements:-
There are two kind of HTML elements as follows.
1. Container elements:- these type of HTML elements always wrap around text for graphics and come in a set with opening as well as closing tag.foreg<HTML>......</HTML>
2. Empty elements:- these type of HTML elements are stand alone tags, i.e not require a closing tag. For eg
3. HTML tag structure:- Consider following Syntex to understand tag structure. For eg

<Tag name   Attr name="attr_value">content</tag_name>

HTML tag consists of following elements.
a.   Tag_ name - this is the opening HTML tag.
b.   Attribute _name- It Contains either a single or list of attributes.
c.   Attribute_value

- HTML basic tags:-
1. <html> It acts as container for all other HTML elements. It inform the web browser that the document is a web page and is created by using HTML coding.

<html>...</html>

Two attributes are
a.   Dir (direction)
        value= 1) ltr (left to right)
                  2) rtl(right to left)
   b. Lang (language)

How to give value

< html dir = "rtl" , lang= "hindi">

a) dir (direction)= It specifies type of text to be presented by the browser.
b) lang= It specifies language of the text

 2) < head>= The head tag must include a tittle for the document and can be include scripts, styles, meta information etc.

   <head>...</head>

 3) Title:- this tag defines title of the document and placed between <head> opening and </head> closing tag.

4) <body> :- it defines the documents body. It contains all necessary contents of an HTML document, such as text, hyperlink, images, tables etc.

Attributes are :-

a. Background :- it specifies background image for a document.
b. Text :- specifies the foreground colour of the text.
c. Bgcolor:- specifies background colour of document.
d. Link:- specifies the colour of the unvisited link for the document.
e. Top margin:- sets a top margin.
f. Left margin:- sets a left hand margin.

<body background = "abc.jpg" , bg colour= "red" , text= "blue" , top margin= "50" , left margin= "60" </body>

5) <font>:- It specifies the font style, font size and font colour of the text.

 Attributes are:-
a. Size:- specifies the size of text.
b. Phase:- specifies font names
c. Colour:- specifies the color of the text.

6) <center>:- It is used to centralize a segment of text to be displayed
                On the border window.

7) < heading>:- used to display the text. Some heading(h1). There are 6 levels of heading (h1 to h6).
                Attribute is allign(left,right, center, justify)
8) <paragraph>:-

- Inserting an image in a web page:-
    tag=<img>

    The <img> tag is used to insert an image in a web page. I mg is an empty element is displayed .JPG, PNG and other format pictures.
Attributes are :-
    1. SRC(Source):- it takes URL of an image field as value and is used to display an image.
    2. Alt(alternative):- it is used to provide alternate text when image on web page cannot be displayed.
    3. Allign:- to set position of an image (start left, right, top bottom, middle)
    4. Height
    5. Width

<imgsrc = "c:\wallpaper\abc.jpg"   allign= "right" height="50" width= "50" alt= " not find">

- Hyperlink:-
    if you are on a webpage and see the colour and underline text, that is a hyperlink. In HTML links can be created by using anchor tag (<a>).This is a container tag.
    <a>••••••••••••••••••••••

Attributes are:-
    1. Hyper reference (href)
       Used to specify the URL of target document
2.   Title:- used to specify the title of the document.
3.   Name:- used to specify the name of anchor.

<a href= "www.google.co.in" name ="google"   title="google page">
google web <a\>

- Html list:-
     HTML supports several elements for making list. They can be divided into two types.

    1. Glossary list:-
                   tag= <dl> (definition list)
2.   Regular list:-
                   Tag = <url> , < dl> , < menu> , <dir>

If you want to make a list of items in the form of terms and their description, you should create a definition list. There are actually three types of HTML list.

    1. Unordered list:- (<ul> tag)
          It starts with the <ul> tag. Each list item starts with the <li> tag. It is a container tag.

Attributes are type and values are circle, disc, square

Example- type= "circle>
                     first
                     second>

2.   Ordered list:-
          Also known as numbered list . starts with <ol> tag. Each list item starts ith the <li> tag. By default numbering will be 1,2,3

Attribute are
a.   Type and values are letter , roman numerals.
b.   start - to change the beginning values of ordered list.

Example :-

<ol type= "roman numerals>
      first
      second

3) Definition list:-
   It is a list of items, with a description of each item.

Tag are < dl> ,   <dt> ,   <dd>

Example:-

<dl>
<dt>   accounts </dt>
<dd> …………………..
<dt stats </dt>
<dd>.............................(description)
</dl>

- Html table:-
  Table allows you to arrange data in the form of rows and columns. Tags used in html table are as follows:-
  1. Table tag = opening tag for a table (<table>)
  2. Table row tag (<tr>)
  3. Table heading tag (<th>)
  4. <td> to make   in table
  5. Caption tag (<caption>)

Attributes of table tag are

a.   Border
b.   Border colour
c.   Cell spacing (space between two cells)
d.   Cell padding (space between content and cell wall.)
e.   Align
f.   Background colour
g.   Height & width

Attributes for table row tag are
a.   Align
b.   Bgcolor
c.   Vertical alignment

Attributes for table heading tag
a.   Align
b.   col.span(merge & column)
c.   Bgcolor
d.   Row space (merge & row)

HTML TABLE

Table allows you to arrange data in the form of rows and columns. Tags used in HTML table are as follows:-

- Table tag = Opening tag for table (<table>)
- Table row tag (<tr>)
- Table heading tag (<th>)
- Make cells in table (<td>)
- Caption tag (<caption>)

Attributes of table tag are:-

1. Border
2. Border color
3. Cell spacing (space between two cells)
4. Cell padding (Space between content and cell wall)
5. Align
6. Background color
7. Height and Width

Attributes for table row tag are:-

1. Align
2. Background color

3. Vertical Alignment

Attributes for table heading tag and <td> are:-

1. Align
2. Col span(merge 2 columns)
3. Background color
4. Row spacing(Merge 2 row)

Attribute for caption tag is align

Example:-

<table align="center" border="4" border color="blue" cell spacing="5" cell padding="4" height=20% width=20% BG color="GREEN">

<tr align="right" BG color="sky blue" vertical align="middle">

<th align="centre" colspan="2" BG   color="white"> Production

</th>

</tr>

<tr>

<td> amit </td>

<td>   40   </td>

</tr>

<th   callspan=2   BG color="white"> FM

</th>

<tr>

<td>   daksh</td>

<td> 90 </td>

</tr>

<caption   align =="center"> Production and F.M.

</caption>

</table>

HTML FORM:-

HTML forms are very effective because they can easily collect data. The input catching programs on our server reply on an interface between web browsers and servers called Common Gateway Interface (CGI).HTML form tag is (<form>)

Attributes are

- Name(specifies name of the form)
- Action(Provides URL of the program that receives information from the form and process it)
- Method(method is used to submit the data)

INPUT TAG

It defines text entry fields, checkboxes, radio button or pushbuttons. It is an empty tag.

Input tag is (<input>). Attributes are

- Type (Values are text, password, radio, checkbox, submit, reset button)

- Name

- Value

- Size, Height and width ,alignment

SELECT TAG

It is a container tag to create dropdown menu and scrolled list. Attributes are

- Name

- Size(value is 1)

- Disabled

OPTION TAG

This tag only occurs with select tag and is used to represent each choice of select. Attributes are

- Label(specifies shorter label in option)

- Selected(select option by default)

- Value

TEXT AREA TAG

It is a container tag, multiline, scrollable text entry boxes. Attributes are

- Name

- Rows

- Columns

EXAMPLE OF HTML FORM:-

Form1

Form

| Username | Enter your name |

| Password | |

| Address | Enter your address | ▽ |

| Country | ▷ |

Gender   O M   O F

| Submit | | Reset | | Cancel |

INPUT OF HTML FORM:-

```
<html>

<head><title>  Form1  </title></head>

<body>
```

Form

```
<form action="abc.html" method="get">
```

User Name

```
<input type="text" value="enter your name"><br>
```

Password

```
<input type="password"><br>
```

 Address

```
<input type col="30" rows="3">Enter your Address</textarea><br>
```

Country

```
<select name="sl" size="1">
<option label="America">America</option>
<option value="US">US</option>
<option value="India"
selected>India</option>
<option value="Japan">Japan</option>
</select><br>
```

Gender

```
<input type="Radio" name="Radio button">Male
<input type="radio" name="Radio button">Female<br>
```

Hobbies

<input type="checkbox" name="Checkbox">Drawing

<input type="checkbox" name="checkbox">Story

                                    Writing

<input type="submit" value="Submit">

<input type="reset" value="Reset">

<input type="cancel" value="Cancel">

</form>

</body>

</html>

Introduction to Information Technology

BBA-210-B

Unit-III

Topic

1. Website planning process

2. Evolution Metrics of a Website

Website:-

It can be defined as a collection of several webpages that are related to each other and can be accessed by visiting a web page by using a browser like Google Chrome, Internet Explorer etc.

Website Planning Process:-

Before launching a website planning process is vital to ensure everything goes smoothening. There are 7 steps that should be followed from start to end when developing a website

1. Research and Goal setting
2. Planning
3. Designing the layout
4. Writing the content
5. Coding
6. Testing and Launching
7. Maintaining

1. <u>Research and Goal Setting:</u> -Planning and Goal setting process could take 1-2 weeks to complete. There are few questions you should ask yourself during this phase.

   a) What do I hope for my website to accomplish?
   b) Who is the audience I would like to target?
   c) What are the main goals for website?

2. <u>Planning the site:</u>-It involves creating a wire frame and site map. It is kind of like the skeleton of website. This process can take 2-6 weeks to complete.

3. <u>Designing the layout:</u>-This is the site where you get creative with pictures, videos and what kind of things customer will notice when they come to your website. This process can take about 4-12 weeks to complete.

4. <u>Writing the content:</u>-This step may be going with other development planning process or steps. It takes 5-15 weeks to complete. A website that has well written is going to be much more successful than once that do not.

5. <u>Coding:</u>-Typically begins with homepage and gradually branches out to be other pages included in the website. It may take 6-15 weeks to complete depending on the content.

6. <u>Testing and launching:</u>-Before website is launched it is crucial that is tested out by real users. All the links and content should be tested to see if it works properly. Don't just check the website once but check it multiple times. It may take 2-4 weeks

7. <u>Maintenance:</u>-It is hardworking step. Other aspect of maintaining website is to ensure that all content is current. This means that the correct information is on website such as contact information, pricing and customer reviews.

Evolution metrics of Website:-

When it comes to measuring the website performance. There are several K.P.I (Key Performance Indicator) metrics that can be used.

1. Measure your audience:-One of the most important thing to measure on your website is your audience reach and impact. You can do this by tracking your visitors, which is typically done using Google analytics or some other analytics tools.

2. Analyze your traffic sources:-It is important to determine how your visitors are getting to your websites. Traffic sources are

- Organic(Traffic generated by relevant keywords or your business names)
- Referrals(Traffic that comes to your site through websites that is link to your website)
- Direct(Traffic generated be those who type your exact URL into web browser)
- E-Mail Marketing(Traffic generated by links in E-mail)
- Paid Traffic(Traffic by paid search engines ads, retargeting ads)
- Social media(Traffic that comes to your site through social networks links or ads)

3. Measure bounce rate and average session time:-Lower bounce rate and longer session time increase your search engine rankings statics with Google, which increases popularity of website.

4. Measure conversion rates:-Now that you have an idea of how many users are visiting your sites, how many times they are visiting, where they are coming from and how long they are staying.

5. Measure profits and return of investments (ROI):-Determining cost of your conversion and your overall return of investment is more important K.P.I of all.

By measuring and analyzing K.P.I, it becomes easier to determine what areas of your website are functioning better than others.

SAP - ERP Introduction

SAP is a market leader in providing **ERP** (Enterprise Resource and Planning) solutions and services. In this chapter, we will try to understand more on ERP and where it should be used. In addition, we will learn the implementation techniques of ERP along with the ERP packages available in the market.

What is ERP?

Enterprise Resource Planning (ERP) is a software that is built to organizations belonging to different industrial sectors, regardless of their size and strength.

The ERP package is designed to support and integrate almost every functional area of a business process such as procurement of goods and services, sale and distribution, finance, accountings, human resource, manufacturing, production planning, logistics & warehouse management.
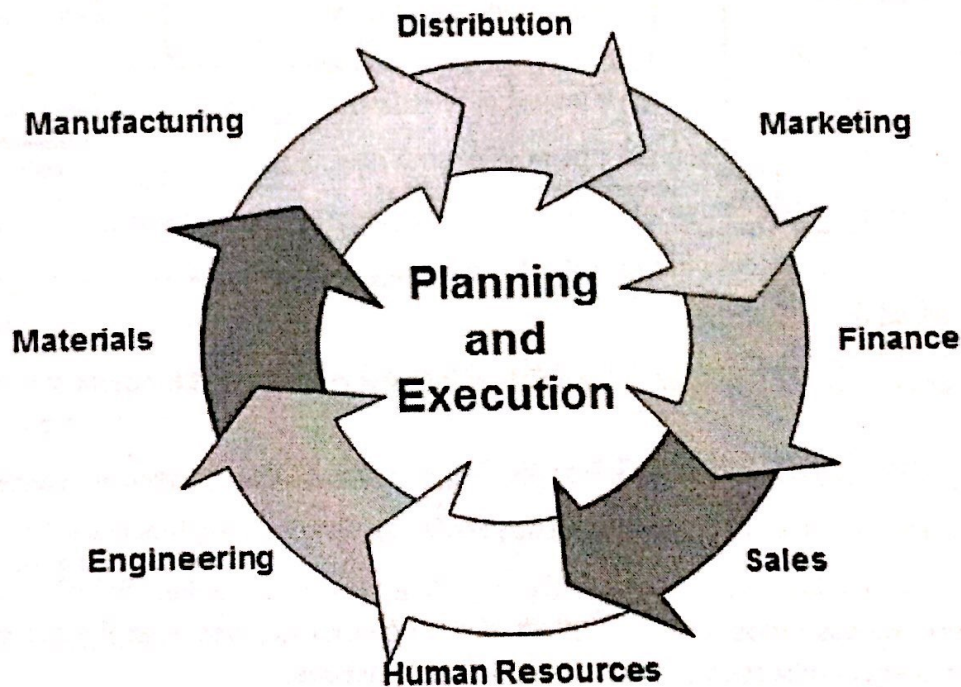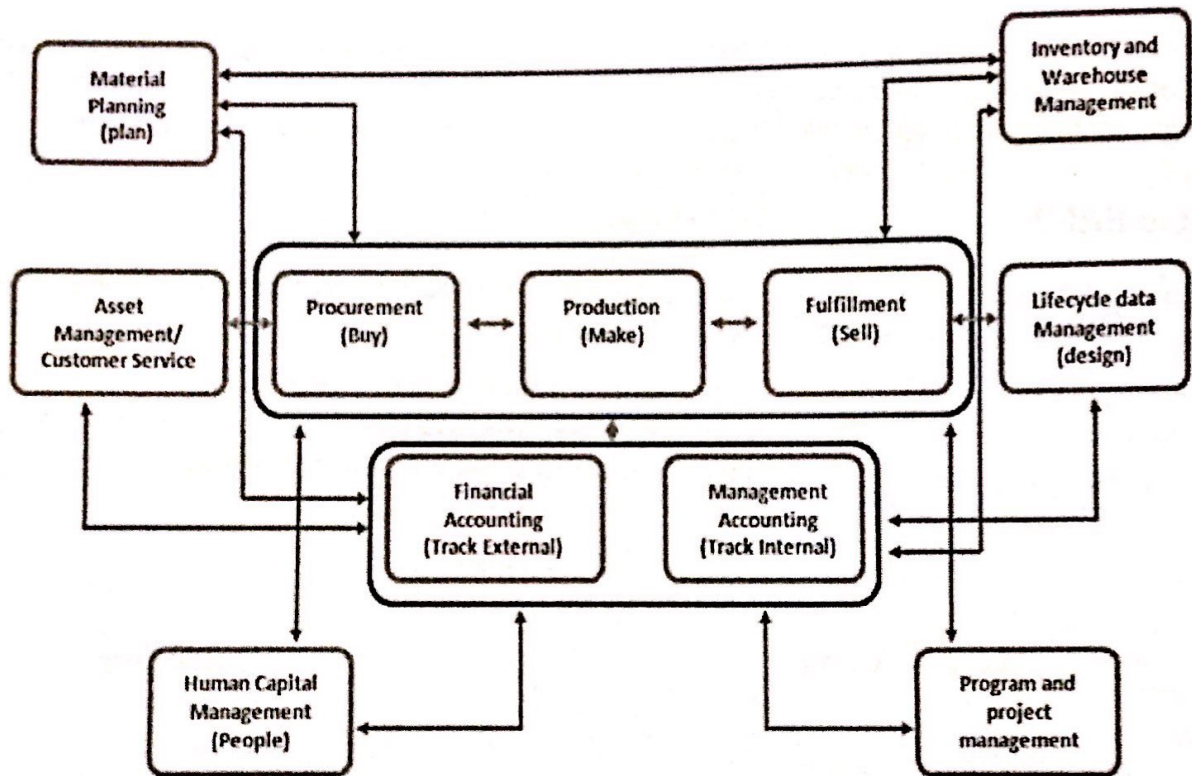

Business Process Integration

Every business, regardless of the industry they belong to, require connected systems with efficient information flow from one business process to another. Business Process Integration (BPI) plays an important role in overcoming integrating challenges that allows organizations to connect systems internally and externally.

Business Process Integration (BPI) allows –

- automation of business processes,
- integration of systems and services,

- secure sharing of data across numerous applications, and
- automation of management, operational, and supporting process.

The following illustration shows an overview of various business processes running in an enterprise and how they are integrated.

Evolution of ERP

During early phases of development, integrated solutions were designed for particular process areas such as −

- Material Management − the integrated system was known as Material Requirement Planning (MRP)
- Manufacturing − the integrated system was known as Manufacturing Resource Planning

However none of the integrated systems came with a complete solution for an organization covering major business process areas. In early 1990's, the Gartner Group first used the acronym ERP. By mid–1990's, ERP systems addressed all the core enterprise functions.

In the early stages, most of the ERP solutions were focused on automating *back office functions* that were not directly affecting customers or general public. Later, *front office functions* such as customer relationship management and e–business   systems were integrated.

Functions of ERP

An ERP system typically performs the following functions −

- Supports the integrated business process inside the organization.
- Improves capital planning and helps in executing organizational plans and strategies.

Scanned with CamScanner

- Helps speed up the decision-making process over the analysis of accurate data.

- Helps extend the business network to wider domains, expanding the products and services to reach more customers, suppliers, and partners.

- Identifies operational risks to improve governance.

- Provides protection against organizational data breaches and security threats to leakage of information.

- Makes the organization adaptable to the rapid changes in the business process according to the needs.

- Gives long-term profit by providing means to increase the customer base.

Functional Areas

ERP is a business management software is usually a suite of integrated applications that a company can use to collect, store, manage, and interpret data from many functional areas including −

- **Financial Accounting** − Deals with financial transactions and data.

- **Human Resource** − Deals with information related to employee of an organization.

- **Customer Relationship Management** − Deals with capturing and managing customer's relationship, facilitating the use of customer experience to evaluate the knowledge database.

- **Sales and Distribution** − Deals with order placement, delivery, shipment and invoicing.

- **Logistics and Warehouse Management** − Deals with storage of products and shipment.

- **Manufacturing and Material Management** − Deals with the production and production planning activities.

- **Supply Change Management** − Deals with the movement of products, storing, managing, and controlling supplies.

- **Business Intelligence** − Analyzes data and converts the same to information.

Advantages of ERP

By integrating the business processes, the ERP offers the following advantages −

- Saves time and expenses.

- Allows faster decision-making by the management, utilizing the data and reporting tools designed in the systems.

- Single data source and sharing of data among all the units of an organization.

- Helps in tracking every transaction that takes place in an organization, from starting till end.

- Supplies real-time information whenever required.

- Provides synchronized information transfer in between different functional areas such as sales, marketing, finance, manufacturing, human resource, logistics, etc.

Disadvantages of ERP

It is not always easy to incorporate ERP in an organization. ERP suffers from the following drawbacks −

- Sometimes business processes critical to an organization are to be re-engineered to align them with an ERP solution.

- Cost of complex integration can be very high.

- Switching from one ERP solution to another increases the implementation cost even further.

- End-users are to be trained for their daily operations.

- Customization is not preferred.

ERP Packages

Many companies develop and implement various ERP packages according to their budget and requirements to help them meet their business needs and run their business efficiently.

The following link takes you to a page from Wikipedia where you can find a list of almost all the ERP packages designed worldwide.

http://en.wikipedia.org/wiki/List_of_ERP_software_packages