

Unit 4

IT Applications

E-GOVERNANCE:

It refers to application of electronic means in governance with an aim of fulfilling the requirements of common man at affordable costs and in fastest possible time.

Social impacts of E-Governance:

- Improved the efficiency of administration and service delivery
- Reduced waiting time
- Reduced Cost
- Increased public participation
- Increased transparency

Some E-Governance websites are:

www.incometaxindia.gov.in

It Provides all the services of Income Tax department

www.indiancourts.nic.in

It provides information related to Supreme Court and High Courts of India.

www.rti.gov.in

Right to information Act 2005 mandates timely response to citizen requests for government information

india.gov.in

This portal not only gives the information about Government of India, but also allows the users to apply online for various services provided by the government

www.drdo.nic.in

Defense Research and Development organization.

E-BUSINESS:

It refers to any form of transaction (exchange) that uses an electronic medium to facilitate the transaction.

Social impacts of E- Business:

- Reductions in transactions and other costs.
- Increase in the internet users.
- Un-shortened supply chain.
- Improved customer service.
- Increased productivity/efficiency.
- Access to international markets.

Some E-Business websites are:

Name of Website Purpose

www.flipcart.com

It provide online purchase of various electronic items like mobiles, microwave ovens etc& is famous for online purchase of books.

www.irctc.co.in

It provides online railway ticket reservation in India.

www.licindia.com

Insurance company of India.

www.ebay.in

India's most popular online shopping mall providing free online auctions.

www.amazon.com

On line store for Books, CD's, DVD's, MP3's etc.

www.yatra.com

On line flight ticket booking service.

E-LEARNING:

It is a flexible term used to describe a means of teaching through technology such as a network, browser, CDROM or DVD multimedia platform.

Social impacts of E- Learning:

- Availability of same course to millions.
- Boon for working class.
- Apprehensive Employers.
- Cultural differences obstruct the true aim of e- learning.
- High Dropout rate.

Some E-learning websites are:

Name of Website Purpose

www.moodle.org

It is Open source Course Management System (CMS), also called as Learning Management System(LMS).

www.w3schools.com

Online web tutorial.

www.exelearning.org

Freely available open source application useful in publishing of web content.

www.ncert.nic.in

Interactive module for students to learn various topics.

www.gcflearnfree.org

It is an educational part of the GCF mission. GCF creates and provides quality, innovative online learning opportunities to anyone who wants to improve the technology, literacy, and math skills.

VERY SHORT QUESTIONS-ANSWERS

1. Give some examples of input values, where Radio Button and Check Boxes should be used for efficiency in the application.

Answer : for selection criteria applying, Providing optional choices.

2. What are the important guidelines we should keep in mind while developing an efficient application?

Answer : It should be user friendly, reliable and should be maintained database with consistency and integrity with GUI.

3. Is it a good practice to take in the inputs using TextFields only? Justify your answer.

Answer : TextField is used to get small textual information like Name, RollNo, email address, quantity, etc. Disabled/Uneditable TextFields are also used to display such information so it is a good practice to take in the inputs using TextFields. But we may also use Dialog to take input.

Short Question-Answers

Q. Write Short Notes on : e-Governance, e-Business, e-Learning.

Answer : **e-Governance** involves applications which are used by government agencies/organizations to provide better governance.

e-Business applications use technology to effectively access and deliver business related services and perform various kinds of business transactions.

e-Learning applications use technology to effectively deliver and monitor learning and teaching processes. They help the trainer to organize and manage his/her lesson plans, present them to students/learners, evaluate and take the feedback to enhance & fine-tune this process in future.

Q. What are Front-end (The user interface) and back-end (The database) ?

Answer : An IT application has two major parts: Front-end (The user interface) and backend (The database) .The front-end of an IT application is usually a group of one or more forms through which the user enters the input values and is shown the corresponding output. A good front-end ensures the acceptance of the application in the first go. The back-end of an IT application is the database in which all the data is stored. This database resides in the server.

All the data which is requested by the front-end is supplied by back-end. A good back-end ensures sustainability, efficiency and easy modification of the application.

Q. What are the terms involved in Development of an IT application ?

Development of an IT application involves creation of front-end, back-end, and connecting these two. It also involves testing the application and then implementing it.

Q. What social and economic impacts are found of ICT. ?

Answer : Society is impacted as due to ICT people change their way of conducting the transactions and thus save their time, money, and energy. Economy is impacted as ICT leads to fast completion of data transfer and data processing jobs. ICT also brings transparency in the administration.

Q. What do you mean by Infomania ?

Answer : Infomania is the condition of reduced concentration caused by continually responding to electronic communications such as e-mail, SMSs, MMSs etc. ICT is making more and more people info maniac. This is making some people waste their productive time in the office, neglect their families and duties. Some people are also in a habit of frequently checking their e-mails even when they are on vacation with their families. We have to be careful in the use of ICT so that we use it constructively and not get obsessed with it and become info maniacs.

Q. What OS and fonts are used for Indic Language Support ?

Answer : Mac OS 10.5 supports Devanagari, Gujarati, Gurmukhi and Tamil. Linux based desktops support Bengali, Devnagari, Gujarati, Kannada, Malayalam, Oriya, Tamil, Telugu and Gurmukhi,

Q. Write the steps for enabling Indic Language Support in Windows.

Answer : Windows 7 and Windows Vista include all the necessary files to support Indic languages. Complex (Indic) text support is automatically enabled. Therefore you just need to enable the keyboard for the language that you want to use by following the steps in the Enable a keyboard layout section. For Windows XP, some additional setup may be required to support Indic languages.

Therefore you first follow the steps given under Enabling International Language Support in Windows and then proceed with the steps given under the Enable a keyboard layout section.

Q. Write the steps for turning on the language bar .

If you do not see the language bar in the task bar (at the bottom of the desktop) or floating on the desktop please do the following:

- Step 1: Click Start, click Control Panel, and then double-click Regional and Language Options.
- Step 2: On the Languages tab, under Text services and input languages, click Details as shown in Figure 8.
- Step 3: Under Preferences, click Language Bar.
- Step 4: Select the Show the Language bar on the desktop check box.

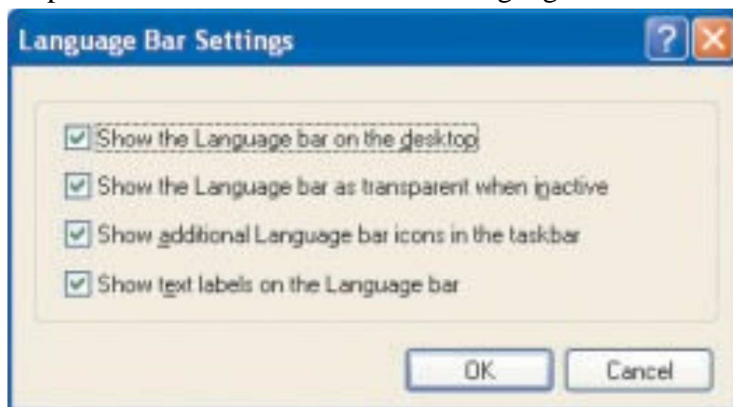


Figure 3 Language Bar Settings in Windows XP

Note: You can switch between different languages by clicking on the language bar and changing the language or by pressing the left ALT+SHIFT keys.

Q. How can be established Front-End and Database Connectivity ?

Answer:- A database application consists of Front-End and Database (Back-end). These two entities cannot work in isolation. Whatever data is entered by the user has to go to the database and whatever relevant data is extracted from the database is to be shown to the user through the Front-End. Therefore, the Front-End and the Database of an IT application must be connected. This connectivity is achieved as learnt in Chapter 6 (Database Connectivity). If the application is web based then the connectivity is achieved using some scripting language (like vbScript or JavaScript).

Q. Are there Websites in Indian languages ? Write about them ?

Ans: Yes, these days multiple Government and private organizations are providing their websites in Hindi and other regional languages also. The aim is to provide their services even to the common people in remote areas. Small towns where computers and internet have reached, information on the net should also be available in regional languages so that people not knowing English can also have access to the information. Language should not be a hinderance but a support to learning.

Understaning the importance of regional languages, many websites have also provided translation services so that the same page can be viewed in any language of user's choice.

Q. What do mean by Front-End Interface ?

Front-end and back-end are terms used to characterize program interfaces and services relative to the initial user of these interfaces and services. (The "user" may be a human being or a program.)

A "front-end" application is one that application users interact with directly.

A "back-end" application or program serves indirectly in support of the front-end services, usually by being closer to the required resource or having the capability to communicate with the required resource. The back-end application may interact directly with the front-end or, perhaps more typically, is a program called from an intermediate program that mediates front-end and back-end activities.

Q. What Components are used for creating Front-end of any software ? Give details about those components.

Ans: To create a front-end various components, like those studied in Java GUI application development, are used. Some of the most commonly used components are discussed below:

- **TextField:** TextField is used to get small textual information like Name, RollNo, email address, quantity, etc.
- **TextArea:** TextArea is used to get long textual information which may span multiple lines of text. E.g. to get Address, Complaint, Suggestion etc.
- **Radio Button:** Radio buttons are used to get an option out of several mutually exclusive (out of which only one can be selected) options. Examples of such options are Gender (Male or Female or Other), Type of Credit Card (Master or Visa or Other), Type of internet connection (DialUp or Broadband), etc.
- **CheckBox:** Check boxes are used to get one or more options out of several given options which are not mutually exclusive. Examples of such options are Hobbies (a user may have zero or more hobbies), Magazines to subscribe for (a user may subscribe to zero or more of the given magazines) etc.
- **List:** A list is used to get one or more options out of several given options which may or may not be mutually exclusive. This may seem to be the case where CheckBoxes are to be used, but the difference is in the number of options available. If the number of options

is small, then CheckBoxes can be used. In case of large number of options, using CheckBoxes may take up a lot of space on the form and it may also be inconvenient for the user to select the desired options. In such cases Lists are preferred over checkboxes. Examples of such cases are: To select cities out of a given list of cities, to select magazines out of a given list of magazines, etc.

- **ComboBox:** A ComboBox is used to get an option out of several given options which are mutually exclusive. This may seem to be the case where RadioButtons are to be used, but the difference is in the number of options available. If the number of options is small, then RadioButtons can be used. In case of large number of options, using RadioButtons may take up a lot of space on the form and it may also be inconvenient for the user to select the desired option. In such cases ComboBoxes are preferred over radio buttons. Examples of such cases are: To select a city out of a given list of cities, to select a train out of a given list of trains, etc.
- **Password Field:** A Password Field is used to get some secret textual information like Password, CVV number of a credit card etc.

Q. What do you understand by e-Business ? Give Examples.

To reach the customers and business associates in an effective and fast manner business houses (now a days many small shops like snacks corners and paan shops also) provide their services on the net.

These ICT enabled counters are used to get orders and feedbacks from the customers and also for inter-business transactions. This helps the businesses to widen their customer base. nafedindia.com/ebusiness.asp (e-business site of NAFED) -Through this URL NAFD (National Agricultural Cooperative Marketing Federation of India Ltd.) offers its e-business services to various corporates and customers.

1. Amazon.com (e-Business site of Amazon.com) - Amazon is the world's largest online store. Through this URL Amazon does its online business

e-Learning:

e-Learning has multiple goals. It is much more than having a net connection and/or CDs through which people learn. E-Learning is about giving freedom to people to learn whatever they want to learn and whenever they want to learn. This is irrespective of (except in exceptional cases) age, caste, gender, economical background, or qualification of the learner. The only requirement is the will to learn. E-learning is available on almost all the topics imaginable.

1. W3schools.com (Website Developers e-Learning site) - At w3schools.com you will learn how to make a website. It offers free tutorials in all web development Technologies.
2. www.gcflearnfree.org - It is an educational part of the GCF mission. GCF creates and provides quality, innovative online learning opportunities to anyone who wants to improve the technology, literacy, and math skills necessary for them to be successful in both work and life.

GCF believes that there's freedom in the ability to learn what you want, when you want, regardless of your circumstances.

3. educationportal.mp.gov.in/public/multimedia.aspx - This government of Madhya Pradesh portal provides multimedia tutorials on various topics of different subjects like maths, science, social sciences etc.
4. ncert.nic.in/html/learning_basket.htm - This NCERT portal provides interactive modules for students to learn various topics.

Q. What is ICT? Write Impact of ICT on society.

Ans: ICT stands for Information and Communication Technology. Like everything else that is used by common man, ICT (Information and Communication Technology) also has impacted the society. ICT has impacted the society in a much wider way than any other technology. Most of these impacts are positive, though there are some negative impacts also.

Social and Economic benefits of ICT:

- ☐ Social networking sites help people remain in touch with their near and dear ones even when they are staying on opposite sides of the globe.
- ☐ Social networking sites help like-minded people come together and work for some cause.
- ☐ E-Governance sites help people save their productive time by performing various government related jobs like getting some forms, depositing bills online.
- ☐ ICT helps economy grow at a faster rate as it provides transparency in the processes and helps the government to keep check on defaulters.
- ☐ Due to e-Banking and use of plastic money more money is put in circulation leading to faster growth of GDP.
- ☐ E-Learning sites make quality study material available even to the students staying at remote places.

Q. Write the steps for enabling International Language Support in Windows.

Step 1: Click Start and then go to Control Panel.

Step 2: Click on Date, Time, Language, and Regional Options and choose Add Other Languages from the task list.

Step 3: In the Regional and Language Options dialog box highlight the Languages tab.

Step 4: In the Regional and Language Options dialog box, under Supplemental Language Support, select the Install files for complex script and right-to-left languages check box.

Click OK or Apply.

Step 5: You will be prompted to insert the Windows CD-ROM or point to a network location where the files are located. After the files are installed, you must restart your computer.

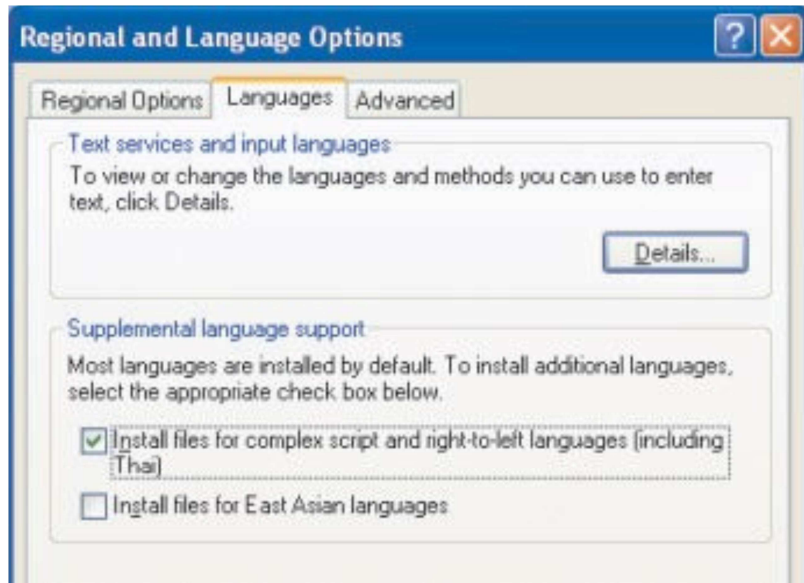


Figure 1 Languages tab in Regional and languages option in Windows XP

Q. What is cloud computing?

Ans: This means that cloud computing is a type of Internet-based computing, and it consists of every situation where the use of IT resources by an entity, including a person or an organization.

Q. What are the properties of cloud computing?

Ans: Properties of cloud computing are:

- Access to the resources is:
 - Controlled by the entity, and restricted by them to their authorized users.
 - Delivered via the Internet to all of these users.
- The resources are:
 - Hosted by a service provider on behalf of the entity.
 - Dedicated to their exclusive use.
- Data processed by the resources is:
 - Private to the entity and its associates.
 - Entered or collected by them, or automatically produced for them.