

# UNIT 1

(continued)

# Web Applications

- Simple office software (word processors, online spreadsheets, and presentation tools).
- More advanced applications such as project management, computer-aided design, video editing and point-of-sale.

# Creating Websites for individual and Corporate World

**Classification: A. Corporate Website B. Individual website**

## **A. Corporate Website:**

- i. In this, there is certain no. of persons, who develop their website for a particular organization.
- ii. The corporate website are formed when group of people have common interest and objective.
- iii. The purpose of this website is to convey the information of organization to all over the world.

**B. Individual website: It** is just like profile management system. In this type of website an individual wants to develop website for h-projection, career growth etc.

# CREATING A Website

- A website is simply a collection of interlinked web pages.
- Hypertext
- HTML
- CSS
- JAVASCRIPT

# Writing Web Projects

**A. Write a project mission statement:** Write the specific mission statement that you want to do.

**B. Identify Objectives:**

i. Specific

ii. Measurable

iii. Attainable

iv. Realistic

v. Time limited

**C. Identify your target users**

**D. Determine the scope:** By supporting documents and client's approval.

## **E. Budget:**

- i. Assumption for budgets.
- ii. Budget categories.
- iii. Determine hidden costs and tools.

## **F. Planning issues:**

- i. Discuss client's existing web application.
- ii. Project team.
- iii. Where the website will place.

# Identification of Objects

- All the components which are visible in website are objects or in other words, we can say that all visible components in the web browser are defined as objects. Ex. Text box, command button etc.

# Target Users

The matter of a website will be determined by the users whom you want to visit the site. This is totally depend upon

- i. Market research
- ii. Focus group
- iii. Understanding audiences



# Web Team

- Web team is a group of various technical experts in a developing site from designing the page to maintain the web server.

## Types:

- **A. Server Side/Development Company's Side:** hired by a company to develop a website.
- **B. Customer's Side/ :** part of the company putting together the website.

## Assessment techniques used to comprise a web team:

a. **Deciding roles and responsibilities:** The composition of team varies to depend on the **audience, scope and complexity level** of the web. There are key roles on each virtual project. One should always decide for **core, extended and special team members** in a web and shares responsibilities accordingly.

**b. Common Team Compositions:** It is possible to acknowledge specific type of teams and determine to be based on the kind of project, who is likely to be part of the team though these are all type of web project. As for example the team composition might be account manager, creative lead, project manager, designer etc.

**c. Putting together with right team:** It meet out the needs with low price, more effectively in reasonable time. So it is the team that fulfils the website requirements successfully.

**d. Identifying Necessary Skills:** The skill set in the base of web team. It must have in care to plan, design, build and deploy a website.

# Core Team member

## **1. Project Manager:**

- Specify the work.
- Developing the project plan.
- Scheduling.
- Allocation resources.
- Budgeting and managing the team.

## **2. Technical lead:**

- Managing programmers.
- Chooses specialized team such as security expert, database programmers.

**3. Web Production specialist:** Integrate the site using html or java script.

**4. Creative Lead:** determines creative concepts for the site and responsible for site design.

**5. Quality Assurance Lead:** for testing purpose.

# Extended Team Member

## **1. Account Manager:**

It interacts with the client, project manager and creative lead.

## **2. Programmer:**

Develops applications for the web projects.

## **3. Network Engineer:**

configuring a web server.

## **4. Information architects:**

understands how to display information visually to users and how to interact with the website.

## **5. Content Writer:**

write contents for the website.

## **6. Tester:**

Tests the web project based on the team plan that QA lead writes.

# Special Team Member

## **1. Security Experts:**

Security handling and encryption techniques.

## **2. Audio, Video Engineer**

## **3. 3-D Modeler**

## **4. Web Cast Specialist**

**5. Media Buyer-** *Media buyers* negotiate, purchase and monitor advertising space and airtime on behalf of their clients. They aim to reach the highest number of people in the target audience at the lowest possible cost.

## **6. Strategic Planner**

# Planning and Process Development

## **A. Early planning:**

- i. Know your audience.
- ii. Interviewing.
- iii. Focus group & Market Research.
- iv. Gathering end user requirement.

## **B. Content planning:**

- i. Get images.
- ii. Create links.
- iii. Audio & Video
- iv. Shockwave & other media files.

## **C. Technical planning:**

- i. Database.
- ii. Shockwave movies.
- iii. Transaction system.
- iv. Scripts of all kinds.

## **D. Production planning:**

- i. Market research.
- ii. Combine the web pages
- iii. Get complete web.



# Communication Issues

- Communication is essential for a positive user experience and for a successful website that truly benefits its owners.
- having a lot of quality information is a good thing, but it can also get in the way and make it difficult to **communicate clearly** with visitors.

- Websites are designed with their target audience in mind, but even within that group of users, some diversity will still exist. These differences can have an impact on the communication of the website, because not every visitor will respond in the same way or understand the same messages.
- **Communicating with clarity**, on the other hand, is much more of a challenge. the message must be communicated in a way that it can be understood by the visitor.

# WEB DEVELOPMENT STRATEGIES

**1. RESPONSIVE DESIGN:** One approach is to create an overall design that adjusts from one device to another. This might seem to be a good approach but it doesn't address the issue of text and images. What might look great on a desktop could be disastrous on a mobile device. It's important to take the time and build a layout that works well with each device and also redesign the images for the smaller screen. As an example, a banner with text which looks great on a desktop might be unreadable on a mobile device.

## 2. **Use Software Prototyping:**

This is where you make use of a graphics program like Adobe Edge Reflow to experiment with your design.

Then, when the design is complete, you can copy the code elements to use in your actual layout.

3. **Versatility:** Make sure you have a team that can handle all aspects of coding and graphic design who are easily accessible to you, either in house or not. This will prevent being blindsided by a client who wants a particular kind of work and you don't have the support. In this case you either turn down the job or wind up scrambling to find the support.

**4. The Team:** While it's critical to have people who work well together, it's also important to have many team members, especially if there's a lot of design and coding going on.

**5. Customization:** While it's very tempting to use templates, that will also create a certain "look" which might not be appealing, especially if you're dealing with an important corporate client. In this case, creating a unique *look and feel* is important because it will help with the branding of the app.

**6. Aware of the Marketplace:** As an example, if you're designing for iOS, you'll have to build fewer versions than you would if you're coding for Android. This simplifies the design process and reduces the costs

**7. Look for inspiration:** It's not necessary to design in a vacuum. In fact, that often makes design more difficult. Instead, look for web sites that inspire you.

**8. Test and Validate:** Validate your code then test your layout for all the different browsers and devices that you've designed for.

# COMMUNICATION ISSUES

- Regardless of what type of website you're developing (a blog, a portfolio site, an e-commerce site, etc.), the success of the site will hinge on being able to communicate effectively with visitors and readers.
- New visitors should be able to quickly get an idea of a website's purpose and its primary reasons for existence.

# What Should Be Communicated

- 1. Purpose of the Company or Website**
- 2. What is Offered?**
- 3. How Can Visitors Benefit?**
- 4. What Action Can Visitors Take?**



- **Typography**

Typography can sometimes be a subtle detail in the design of a site, but it can also have a significant impact on the communication. The font chosen, size, color, weight, and case all impact how the message is being communicated.

- **Colors**

Colors can have a subtle psychological effect, or they can have a more obvious effect. The same website with two different color schemes can have two drastically different appearances

- **Language and Grammar**

An obvious impact on the message is the language in which it's being communicated. Knowing your target audience, you should be able to identify the language to be used, although some websites will offer multiple choices of languages for visitors

- **Accessibility**

The message of a site can't be communicated if the visitor can't access the page.

- **Taglines**

Some websites use taglines to quickly convey a message to visitors.

- **Formatting**

Especially with articles and blog posts, formatting is essential. The same content formatted in two different ways can produce drastic results.

# Challenges of Creating a Website with Clear Communication

## 1. Too Much Content

One of the biggest challenges that designers have to overcome is simply deciding on **the amount of content and information** to use. Of course, having a lot of quality information is a good thing, but it can also get in the way and make it difficult to **communicate clearly** with visitors.

## 2. Every Visitor is Different

When developing websites, one needs to keep in mind that **each visitor is unique** and that it is impossible to classify all of them in the same group. Websites are designed with their target audience in mind, but even within that group of users, some diversity will still exist

### 3. Clarity

Communicating through a website is easy. Every website communicates in a number of different ways, even unintentionally.

### 4. Keeping Communication Brief, But Complete

Because of the need for clarity and the benefits of communicating quickly, there are advantages to keeping messages as **short and concise** as possible. A brief, clear message will generally be most effective for communicating quickly online

# Quality Assurance

- When quality assurance is well implemented, a web site should see progressive improvement in terms of both lessening rate of defects *and* general increase in site usability and performance.
- Quality assurance should be involved in the development process. QA should review new designs *before* they are finalized with an eye towards usability and user experience factors; heading off problems before they become real improves quality immediately and reduces problems.

# Quality assurance

- Quality assurance should be involved in customer service and user-support communications, especially with a commerce site, so that usability defects can be reviewed.
- Quality assurance should log reported problems in a database of some kind, assigning properties to the problem such as the priority and scope, and recording such attributes as description, error message, affected functionality, etc.

# Testing

- 1) Functionality Testing
- 2) Usability testing
- 3) Interface testing
- 4) Compatibility testing
- 5) Performance testing
- 6) Security testing

- **Functionality Testing:**

Test for – all the links in web pages, database connection, forms used in the web pages for submitting or getting information from user, Cookie testing.

- **Usability testing includes:**

Web site should be easy to use. Instructions should be provided clearly. Check if the provided instructions are correct means whether they satisfy purpose.



- **Interface Testing:**

The main interfaces are:

Web server and application server interface

Application server and Database server interface.

- **Compatibility Testing**

- ✓ Browser compatibility

- ✓ Operating system compatibility

- ✓ Mobile browsing

- ✓ Printing options

- **Performance testing:**

Web application should sustain to heavy load. Web performance testing should include:

Web Load Testing

Web Stress Testing

# •Security Testing:

Following are some test cases for web security testing:

- ✓ Test by pasting internal URL directly into browser address bar without login. Internal pages should not open.
- ✓ Try some invalid inputs in input fields like login username, password, input text boxes. Check the system reaction on all invalid inputs.
- ✓ Web directories or files should not be accessible directly unless given download option.
- ✓ Test the CAPTCHA
- ✓ Test if SSL is used for security measures. If used proper message should get displayed when user switch from non-secure http:// pages to secure https:// pages and vice versa.
- ✓ All transactions, error messages, security breach attempts should get logged in log files somewhere on web server.