Progressive CSS3 Design

Presented By: Sudhir K Singh

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Agenda

- Corporate Overview of Hexaware Technologies
- CSS Introduction and History
- CSS3 Key Differentiators
- Browser Compatibility for CSS
- Progressive CSS Design
  – Key Considerations
  – Strategies
  – Examples
- Q & A

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Corporate Overview

Hexaware Overview: Key Facts

194
Active Clients served worldwide (Sep'11)

8100
Employees globally (Sep'11)

51
Million dollar clients (Sep'11)

32
Offices worldwide

231.2
$ mn Revenues in CY '10

Certifications
CMMI Level 5, ISO 27001, PCIDSS

Delivery centers in Mumbai, Chennai, Nagpur, Pune, Mexico, Bangalore, New Jersey

Toronto
Brussels
Chicago
Boston
London
San Jose
Tokyo
Mexico
Pune
Nagpur
Bengaluru
Chennai
Bangkok
Singapore
Sydney

Proximity Center
Delivery Center
Sales Office

Industry Recognitions

- Golden Peacock Award for Excellence in Corporate Governance for the year 2011 by Institute of Directors
- The Green Edge Award 2010 for using IT to maximize business impact.
- Leaders category for The 2010 Global Outsourcing 100 by IAOP
- Ranked N0: 18 in the NASSCOM's Top 20 IT Service Providers India (2009-2010)
- Top 100 Innovative service Provider by Global Services
- CIO 100 Ingenious Award
- Best Employers for five consecutive years (2005 – 2009) & #22 Employee Satisfaction Survey '09 DQ- IDC
- Markie Award in the Marketing Visionary category at the 2010 Eloqua Experience user conference, California.
- Ranked amongst the 500 best performing Mid-sized Companies in India by Inc.India.

Golden
Peacock Award

CIO 100

GLOBAL SERVICES 100
2009

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End to End Services Spectrum

Application Services
- Legacy Modernization
- Custom & Bespoke Development
- Re-Engineering
- Migration
- Re-Hosting & Re-Platform

Application Maintenance
- Portfolio Assessment
- Level 1 Support
- Production Support – 24*7
- Maintenance Support
- Enhancement and Customization
- System and DBA Support

Infrastructure Management
- Application Monitoring and Management
- Performance Monitoring
- Server, Network and Security monitoring and management (availability and performance)
- Change Management

Product Engineering
- New Product Development
- Product Porting & Reengineering
- Customization & Localization
- Testing & QA
- Product Support

IT Enabled Business Solutions

Enterprise Solutions
- Implementation
- Global Roll out
- Support & Maintenance
- Upgrade & Data Migration
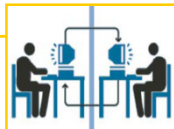- Help Desk
- Testing

Business Intelligence & Analytics
- Analytics: Risk, HR, Financial
- Business Intelligence
- Data Integration
- Performance Management
- Data Management

Business Process Outsourcing
- HR Outsourcing
- Financial Service Outsourcing
- Claim Processing
- Form Processing
- Item Processing
- Document Management

Independent Testing
- Business Requirement Analysis
- System Integration Testing (SIT)
- Performance Testing
- Test Automation, UAT Support
- Fail Over/Availability Testing
- Automation Lab: Mercury, Rational

Advance Solution Group @ Hexaware

Domain Experience

- Reservation System / IBE
- Departure Control, Customer Loyalty
- Flight Operations, MRO, Cargo, Security

ASG / COE Benefits

- Enhancing Customer Experience
- Delivery Excellence, Create Value additions
- Faster time to market by creating easy Framework for upcoming functionalities
- Easy integration
- Resources / Expertise development

Market Analysis

- Drivers: Market Demand & Analysis
- Services:
  - **Electronic Miscellaneous Document**
  - **Booking Engine** & E-Freight
  - **Airline Testing Suite**
  - **Business Analytics**
  - **Mobile Devices Framework** / **Application Enablement**

COE
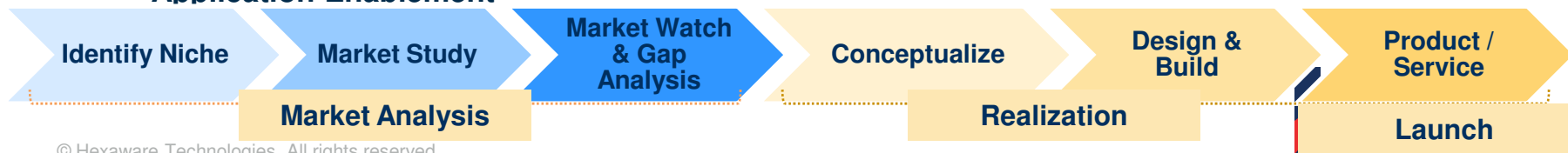
Industry Experts

- Hands-on experience in airline domain

Technologists

- Experience across diversified Technologies

Knowledge Managers

- Maintain repository of best practices, white papers and other documents

Business analysts / Testing

- Years of involvement in domain

Niche Benefits

- Niche market needs
- Innovative products per market needs
- Faster time-to-market
- Easy integration with external systems
- Avoidance of repetitive customization for non-standard requirements like country specific features

Identify Niche	Market Study	Market Watch & Gap Analysis	Conceptualize	Design & Build	Product / Service
	Market Analysis			Realization	Launch

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Cascading Style Sheet

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Web Browser – Historical Perspective

Year	Milestone
1965	Ted Nelson coins the term "hypertext" at the annual conference of the Association of Computing Machinery.
1969	Charles Goldfarb, Edward Mosher, and Raymond Lorie, working at IBM, invent the Generalized Markup Language as a way of editing, sharing, and reusing electronic text.
1984	Apple Macintosh computers ship, including HyperCard, a graphical hypertext system for personal computers.
1986	SGML, derived from Goldfarb's GML, is adopted by the International Standards Organization.
1989	Tim Berners-Lee begins work on his World Wide Web project.
1991	First draft of Hypertext Markup Language (HTML) released on the net.
1993	Marc Andreesen and Eric Bina develop one of the first graphical browsers, Mosaic, at the University of Illinois.
1994	Netscape releases first version of Navigator.
1995	Microsoft released Internet Explorer.
1996	Cascading Style Sheets becomes W3C recommendation.
1997	Netscape Navigator and Internet Explorer 4.0 support "Dynamic HTML".
1998	Extensible Markup Language (XML) becomes a W3C recommendation.

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CSS History

Year	Version	Milestone
1996	1	➢ Font properties such as typeface and emphasis ➢ Color of text, backgrounds, and other elements ➢ Text attributes such as spacing between words, letters, and lines of text ➢ Alignment of text, images, tables and other elements ➢ Margin, border, padding, and positioning for most elements ➢ Unique identification and generic classification of groups of attributes
1998	2	➢ Absolute, relative, and fixed positioning of elements and z-index ➢ Concept of media types ➢ Aural style sheets ➢ Bidirectional text ➢ New font properties such as shadows
2011	2.1	➢ Added more visual support for different media types.
-	3	➢ Specification divided into several separate documents called "modules" ➢ Over 40 CSS modules published from the CSS Working Group by March 2011 ➢ Selectors, Namespaces, Color and Media Queries modules are considered stable

Layout Engine for CSS

Layout engine	Release version	Preview version	Used by
Amaya	11.3.1	11.3-pre	Amaya
Gecko	6.0.2	8.0a2	All Mozilla software, including Firefox; SeaMonkey and Galeon; Camino; K-Meleon; Flock (up to 2.x); Epiphany-gecko; Debian IceWeasel; GNU IceCat(formerly GNU IceWeasel); Icedove, Iceape and Iceowl; Fennec
KHTML		N/A	Konqueror
Presto	2.9.168	2.9.168	Opera; Opera Mobile, Nintendo DS & DSi Browser; Internet Channel
Prince	7.1	N/A	Prince XML
Tasman	(IE 5.2.3 for Mac)	none (aborted in 2003)	Internet Explorer 5+ for Mac OS X
Trident	5.0 (IE 9)	6.0 (IE 10)	Internet Explorer and other Internet Explorer shells like Maxthon (Microsoft Windows operating systems only), Windows Phone 7
WebKit	534.20	r83424	Safari (both desktop and mobile), Google Chrome, Maxthon 3, Shiira, iCab 4, OmniWeb 5.5+, Epiphany, Adobe AIR, Midori, Adobe Dreamweaver CS4 and CS5, Android browser, Palm webOS browser, Symbian S60 browser, OWB, Steam, Rekonq, Arora, Flock (version 3+), RockMelt

CSS Version Support

	Trident	Gecko	WebKit	KHTML	Presto	Prince XML
CSS1	7.0	1.0	85	Yes	1.0	1.0
CSS2.1	9.0	Mostly	Mostly	Mostly	Mostly	Mostly
CSS3	Slight	Partial	Partial	Slight	Partial	Slight

CSS3 Key Differentiators

➢ Enhanced Selectors

➢ Transitions, Transforms, and Animations

➢ Opacity

➢ Media Queries

➢ Multi-column text layout

➢ Border Image

➢ Box Shadow

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Progressive Design Key Considerations

➤ Maximize Target Viewers

    ➤ Popular PC based Internet Browsers

    ➤ Mobile device browsers

    ➤ Other HTML renderers

➤ Aesthetics versus Functionality

    ➤ Performance versus Looks

➤ Backward Compatibility

    ➤ Use filters

    ➤ Block incompatible browsers

➤ Ease of Maintenance

    ➤ CSS versus JavaScript versus Rich UI

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Progressive Design - Strategies

- Control Browser HTML Rendering

  - CSS filters based on

    - Browser hacks or features

    - CSS version implementation

- Control JavaScript based Rendering

  - JQuery

  - Custom Java Script

- Rich UI using Browser Plugin

  - Flash

  - Applet

  - Silverlight

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Progressive Design – Strategies – CSS Filters

➢ ## CSS filters

   ➢ **Target Specific Browsers Prefix**

        p { color: #000; /* paragraphs in black for browsers that ignore all of the below */

          -moz-color: #F00; /* paragraphs in red for Gecko browsers */

          -webkit-color: #00F; /* paragraphs in blue for WebKit browsers */

          -khtml-color: #0F0; /* paragraphs in green for KHTML browsers */

          -xv-color: #FF0; /* paragraphs in yellow for Presto browsers */ }

   ➢ **Target Specific Browsers CSS parsing bug**

      ➢ Underscore hack (IE6) - _width:5px

      ➢ Star hack (IE7) - *width:5px;

      ➢ Body empty hack (Firefox 2.0.x) - body:empty p {color: #000; }

   ➢ **IE conditional comment**

      <!--[if IE 8]> <link href="ie8only.css" rel="stylesheet"> <![endif]-->

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Progressive Design – Example – Multicolor Stripe
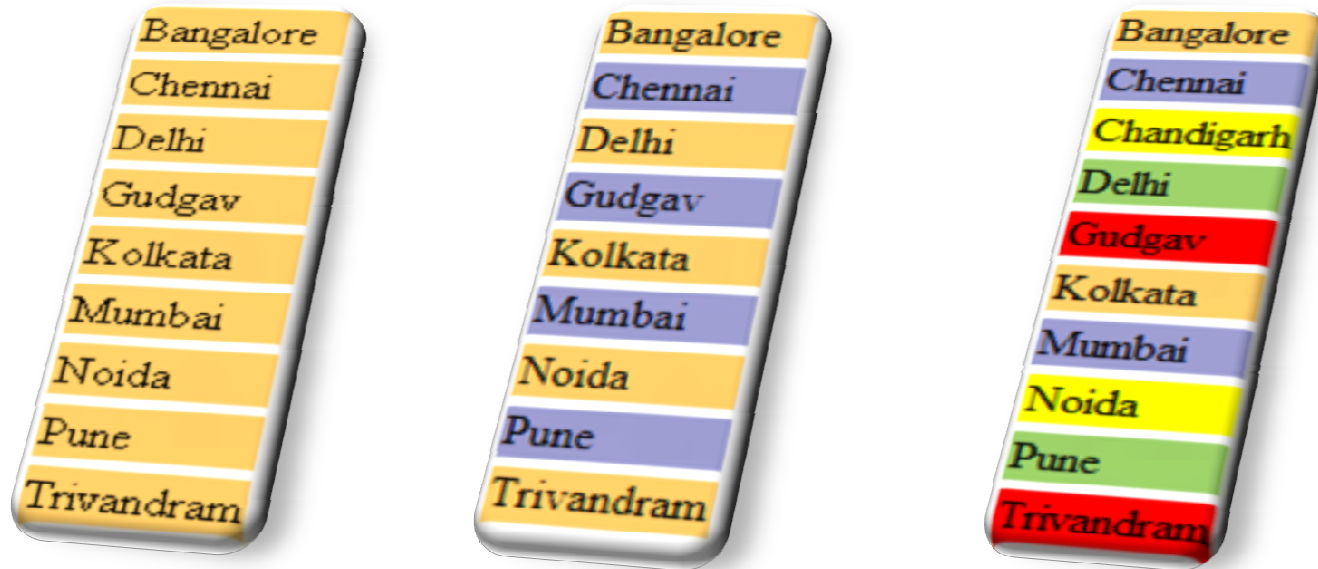
```
tr{background-color: #FFCC66;}

tr:nth-child(odd){background-color: #FFCC66;}
tr:nth-child(even){background-color: #9999CC;}

tr:nth-child(5n+1){background-color: #FFCC66;}
tr:nth-child(5n+2){background-color: #9999CC;}
tr:nth-child(5n+3){background-color: yellow;}
tr:nth-child(5n+4){background-color: #99CC66;}
tr:nth-child(5n+5){background-color: red;}
```

Progressive Design – Example – Opacity


```
table{background-color: yellow;}

tr{background-color: green;}

tr:hover{opacity: 0.7;} / tr:hover{opacity: 0.4;} / tr:hover{opacity: 0.1;}
```

Progressive Design – Example – Transition & Transform

.test_box {position:relative; width:80px; height:20px; margin-bottom:5px;
background-color:yellow; text-align:center;}

*[id^="ease"].test_box { -webkit-transition: all 0.1s ease;
-moz-transition: all 0.1s ease;
-o-transition: all 0.1s ease;
-ms-transition: all 0.1s ease;
transition: all 0.1s ease;
border:1px #f00 solid;}

div[id^="demo"]:hover .test_box{
-webkit-transform: scale(1.2,1.2);
-moz-transform: scale(1.2,1.2);
-o-transform: scale(1.2,1.2);
-ms-transform: scale(1.2,1.2);
transform: scale(1.2,1.2);
background-color:#9999CC;;
opacity: 0.9;}

```
<table border="0"cellpadding="0" cellspacing="0">
   <tr><td><div id="demo1" ><div id="ease1" class="test_box">Bangalore</div> </div></td></tr>
   <tr><td><div id="demo2" ><div id="ease2" class="test_box">Chennai</div></div></td></tr>
```

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Progressive Design – Example – Animation

```
#box {height:50px;width:50px;margin:0 auto;
      border:1px red solid; background-color:yellow;}

@-webkit-keyframes resize {
    0% {padding: 0;}
    50% {padding: 0 20px;background-color:green;}
    100% {padding: 0 100px;background-color:red;}
}
@-moz-keyframes resize {
    0% {padding: 0;}
    50% {padding: 0 20px;background-color:green;}
    100% {padding: 0 100px;background-color:red;}
}
@-ms-keyframes resize {
    0% {padding: 0;}
    50% {padding: 0 20px;background-color:green;}
    100% {padding: 0 100px;background-color:red;}
}

<div id="box"></div>
```

```
#box:hover{
    -webkit-animation-name: resize;
    -webkit-animation-duration: 1s;
    -webkit-animation-iteration-count: 4;
    -webkit-animation-direction: alternate;

    -moz-animation-name: resize;
    -moz-animation-duration: 1s;
    -moz-animation-iteration-count: 4;
    -moz-animation-direction: alternate;

    -ms-animation-name: resize;
    -ms-animation-duration: 1s;
    -ms-animation-iteration-count: 4;
    -ms-animation-direction: alternate;
}
```

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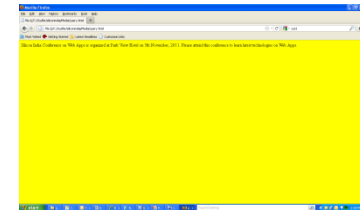# Progressive Design – Example – Media Queries

➢ ## Media Types in CSS2

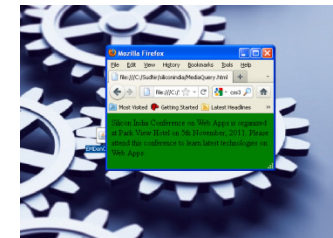 ➢ braille, embossed, handheld, print, projection, screen, speech, tty, tv

➢ ## Media Queries in CSS3

 ➢ Media type and zero or more expressions

```
<link rel="stylesheet" media="screen and (max-width :480px), screen and (color)
      and (min-width :481px)" href="mediaquery.css" />
```
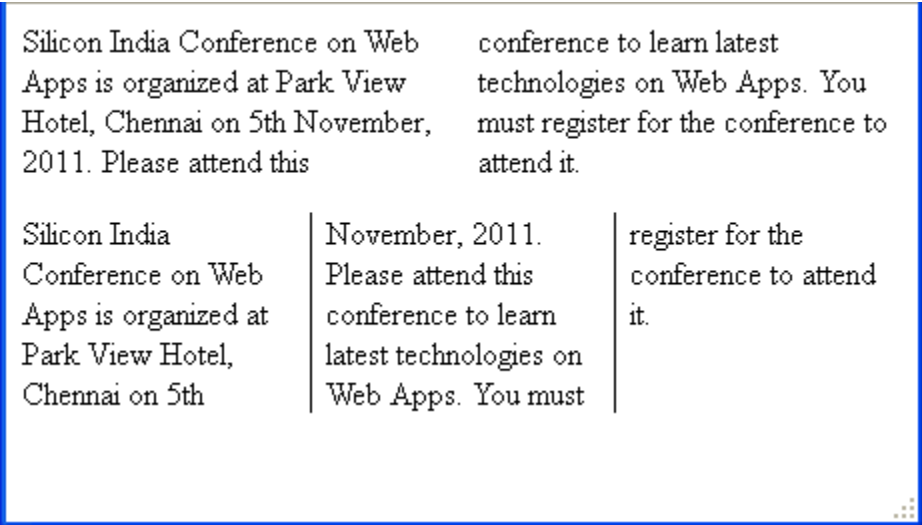


```
@media screen and (color) and (min-width: 481px) {
    body{background: yellow;}
}
@media screen and (max-width: 480px){
    body{background: green;}
}
```

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Progressive Design – Example – Multi Column Text Layout

Silicon India Conference on Web Apps is organized at Park View Hotel, Chennai on 5th November, 2011. Please attend this conference to learn latest technologies on Web Apps. You must register for the conference to attend it.

Silicon India Conference on Web Apps is organized at Park View Hotel, Chennai on 5th November, 2011. Please attend this conference to learn latest technologies on Web Apps. You must register for the conference to attend it.

```
.column_width{
  -moz-column-width: 13em;
  -webkit-column-width: 13em;
  -moz-column-gap: 1em;
  -webkit-column-gap: 1em;}


.column_count{
  -moz-column-count: 3;
  -moz-column-gap: 1em;
  -moz-column-rule: 1px solid black;
  -webkit-column-count: 3;
  -webkit-column-gap: 1em;
  -webkit-column-rule: 1px solid black;}
```

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Progressive Design – Example – Border Image


```
.border_image{
        border:10px double orange;
        -moz-border-image: url(border.gif) 40 stretch;
        -webkit-border-image: url(border.gif) 40 stretch;}
```

```
<table class="border_image"><tr><td>Silicon India Conference on Web Apps is
organized at Chennai on 5th November, 2011.</td></tr></table>
```

Progressive Design – Example – Box Shadow

Silicon India Conference on Web Apps is organized at Chennai on 5th November, 2011.

```css
.box_shadow{
        position:relative;
        width:300px;
        height:50px;
        background-color:yellow;
        -moz-box-shadow: 10px 10px 5px red;
        -webkit-box-shadow: 10px 10px 5px red;
        box-shadow: 10px 10px 5px red;}
```

```html
<div class="box_shadow">Silicon India Conference on Web Apps is organized at
Chennai on 5th November, 2011.</div>
```

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Questions

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Thank You

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