

HTML5 Application Development

1. Application Lifecycle Management

1.1 Describe the application lifecycle management stages

- Plan, design, develop, test, deploy, and maintain

1.2 Debug and test web apps

- Input validation errors, runtime errors, breakpoints

2. Graphics and Animation

2.1 Use the canvas element to create graphics and animations

- shape, color, line, translate/move, rotate, scale, interactivity

2.2 Use the svg element to create and display graphics

- Advantages, inline vs. referenced XML, shapes, color, SVG filter effects

2.3 Transform, style, and enhance text and graphics

- Graphics effects (rounded corners, shadows, transparency, background gradients, typography, and Web Open Font Format), 2-D and 3-D transformations (translate, scale, rotate, skew, and 3-D perspective transitions and animations), keyframes

2.4 Apply CSS filters to images

- grayscale, blur, sepia, opacity, drop-shadow, saturate

3. Forms

3.1 Construct and analyze markup that uses form elements

- datalist, fieldset, meter, legend, output

3.2 Configure input validation

- Validation attributes, pattern attribute for regular expressions, correct data type, length, required value

4. Layouts

4.1 Manage content layout, positioning, and flow by using CSS

- Content flow (inline vs. block flow), positioning of individual elements (float vs. absolute positioning), content overflow (scrolling, visible, and hidden), basic CSS styling

4.2 Construct layouts by using responsive design

- grid view, background-size, images, picture, viewport, responsive width, media queries

4.3 Construct flexible responsive layouts by using CSS flexbox

- flex container (flex-direction, flex-flow, flex-wrap), flex items (flex-basis, flex-grow, flex-shrink, order, flex)

4.4 Construct grid-based layouts by using CSS grid

- container, items, templates, gap

IT SPECIALIST EXAM OBJECTIVES

5. JavaScript Coding

5.1 Create and use custom classes

- Instantiation, properties, methods, inheritance

5.2 Perform data access by using JavaScript

- Send and receive data, transmit and parse complex objects, load and save files, XML, JSON

5.3 Construct code that responds to events by using event listeners and handlers

- Gesture events, handling multiple events, Event object, bubbling vs. cascading

5.4 Construct code that uses JavaScript APIs

- Google Charts, jQuery, Geolocation

5.5 Manage the state of an application

- Session state vs. app state, where to store state (local vs. session storage)



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