

HALTON SKILLS COMPETITION

WEBSITE DEVELOPMENT SCOPE

SECONDARY LEVEL

Coordinator: Ron Boyd, rwboyd@orionsweb.net

PURPOSE OF THE CHALLENGE

To provide competitors with the opportunity to demonstrate, through practical and theoretical application, their skills in client- and server-side web development and web design.

SKILLS AND KNOWLEDGE TO BE TESTED

Practical 85% | Theoretical 10% | Interview 5%

Competitors will:

- be asked to complete a multiple-choice examination testing their knowledge of HTML, PHP, XHTML, JavaScript, and CSS
- be tested on their ability to develop and design a web site that:
 - provides interaction with the user
 - is coded to a minimum XHTML 1.0 compliant
 - uses CSS
 - adheres to accessibility guidelines
 - W3C valid code
- Breakdown:
 - Graphics**
 - Edit images
 - Optimize images for the web
 - Create images
 - Slice images
 - Include original vector and rasterized graphics for judges
 - Interactivity**
 - XHTML or HTML 5, Ajax, JavaScript scripting to add client-side interactive elements to the website.
 - Use JavaScript libraries (eg. jQuery) to enhance website interactivity
 - Server side programming**
 - Create and/or modify a server side application coded in PHP, MySQL (Example CMS, image gallery, membership application, shopping cart, product catalogue, contact form)
- The website will be hosted on a Linux based Internet web server and presented live via a web browser to a "Client". FTP information will be provided at the competition
- be tested on their presentation and communication skills by presenting their final web site to one or more judges
- be tested on their job interview skills. The job interview challenge for this year's competition will be judged during the web design portion of the competition

SCENARIO

A local business has approached your web consulting firm and asked your firm put together a concept website for review by its marketing and technical departments. The company has requested that you create and design the website on-site and then meet with a panel of senior management to have them evaluate your design. The specifications and technical requirements will be presented to you on the day of the competition.

CLOTHING REQUIREMENTS

The dress for this event is “business casual.”

EQUIPMENT AND SOFTWARE SUPPLIED:

- A tabletop workspace
- A subdomain set up live on the Internet for posting and presentation of the website
- Internet Access
- Power (please bring an extension cord in case it's needed)
- Server Environment
 - Linux / Apache
 - PHP
 - MySQL
 - Server-Side Includes (SSI)
- Stock photos, illustrations, audio, video and any additional documentation will be located on the server

EQUIPMENT AND SOFTWARE SUPPLIED BY THE CONTESTANTS:

- Writing supplies: pens, coloured pencils, blank paper – for taking notes, jotting down and organizing ideas and possibly creating a moc-up or site and it's layout on paper
- RESUME
- A Windows PC. NOTE: Linux or Mac computers are allowed at the Halton Skills Competition, however the Ontario Skills Competition provides only a Windows environment
- Current versions of FireFox, Internet Explorer, Google Chrome, Opera, Safari
- Contestants Choice of WYSIWYG Programs:
 - Adobe DreamWeaver CS6
 - Aptana Studio 2

- Contestants Choice of Text Editors:
 - HTML Kit, Textpad, NotePad, Vim with Cream
- FTP programs:
 - FileZilla
 - WinSCP
 - Flash FXP
- Image Programs:
 - Adobe Photoshop, Illustrator and Fireworks (CS4)
 - GIMP
 - Inkscape
- Other programs: OpenOffice.org, Microsoft Office
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Notes:

- Absolutely no additional equipment, material or software is allowed without prior approval
- Contestants may NOT obtain content or graphics from the Internet during the competition with the exception of the files made available in their ftp folders
- CD-ROM, Floppy drives, Memory Sticks and USB devices will be off-limits during competition (Students will be able to save their final work at the end of the competition to a USB thumb drive)
- Competitors are responsible for backing up their work and saving during the contest. Files lost due to computer crashes, software failure, power failure, etc. will not be compensated for. It is advised that you save and upload often to the server!

JUDGING CRITERIA: (out of 100)

Examination: (10)

Competitors will write a 25-question multiple choice exam testing their knowledge of HTML, XHTML, CSS, JavaScript, PHP, and SQL.

Job Interview: (5)

To assist competitors in fully preparing for their eventual job searches and to become valued employees, there will be a **5 minute** job interview worth 5% of the competitor's overall mark incorporated into this contest. It is expected that the competitors arrive prepared WITH A RÉSUMÉ and be ready for interview questions related to the technical career path their contest reflects. Feedback from the interview will be given to competitors in order to help them prepare for real-life job interviews.

Website Content: (10)

- The purpose of the website is clearly identified. Titles, logos, headings, communicate site intents and objectives.
- Site content is organized in a logical and useful manner; it moves from introductory or general content to specific or detailed content.

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- Site content supports the intention of the site. The information is useful and creative. The content is presented in an interesting and original manner.
- Text and graphics are organized in a way to promote readability. White space and other devices make the page easy to read or view.
- Graphics and text work together to realize the objectives of the site. Graphics are not used for their own sake.
- Page format is appropriate. Pages are not inordinately long. Scrolling is kept to an acceptable level. Use of tables or other windowing devices does not “clutter” the site.
- Content of the site must be only material that the contestants create during the contest or is provided to them by the contest organizers.

Website Navigation: (10)

- Links are easily identifiable and their use is intuitive. Users can move easily both forward and backward through the site.
- The path to desired information is clear. Use of menus, input types, directs visitors to relative information.
- Site interactivity is good. Links, buttons, drop downs, check boxes and text boxes are used to give the user a high level of engagement.
- Links to external Web sites are meaningful.
- Links to information located on the same page (anchors) are appropriate.

Visual: (10)

- The site is aesthetically appealing. Use of background and foreground colour promotes readability.
- Graphic size, positioning and type enhance text and navigability.
- Site visual theme is consistent. There are no jarring changes in layout, font usage, colour, as the visitor moves from page to page.
- Visual design is creative. The visual design has a high level of originality.
- The site includes an original vector or bitmap graphic designed and created by the competitor.
- The site includes photographs and images (conversion to PNG, GIF or JPEG may be required).

Site Structure: (5)

- Website must be written in PHP and validate as (at least) XHTML 1.0 Strict * Use of HTML5 is recommended
- The website must include the use of JavaScript (may use Ajax & jQuery library)
- The project must be viewable in screen resolutions from 1024x768 and up
*Bonus marks if the site is mobile responsive from phone to 4k
- Web site must be viewable in the latest versions of Internet Explorer, Opera, Mozilla Firefox & Safari

Cascading Style Sheets: (10)

- Clearly separate content from presentation through the use of Cascading Style Sheets
- ID and class names are properly written and referenced using appropriate notation

Web Form: (10)

- Demonstrate proficiency in the design of Web forms
- Forms must validate (client- or server-side) the user input data
- Ensure that Web forms are properly marked up and accessible

MySQL: (10)

- Create a database and tables that data is written to and read from (phpMyAdmin will be available)

Presentation: (15)

- Each competitor will be given five minutes to do a verbal presentation of their Web site to a panel of judges and to explain the rationale for their choices of layout and design elements. Judges will be acting as your client, so you will be expected to explain your site in detail.
- Present design brief.
- Present site plan outlining how the Web site is structured and organized. The site plan will be submitted in writing to the presentation judges.
- Demonstrate the ability to clearly explain your site to a client with a limited technical background.

SCHEDULE FOR THE DAY

8:00am - 8:30am Registration
8:30am – 8:45am Orientation
8:45am – 9:00am Multiple-choice examination
9:00am - 3:00pm Competitors will design their websites
2:45pm - 3:30pm Presentations to and evaluations by judges
4:00pm – 6:30pm Dinner, Entertainment & Awards Ceremonies

Please come prepared to stay the entire day and make arrangements to take your equipment with you when you leave.

Coaches: Please contact Ron Boyd: rwboyd@orionsweb.net if you have any questions regarding the competition.

Thank you,