



PROJECT

Web design and development

SECONDARY

1 INTRODUCTION

Welcome to the 2020 Web Design and Development Competition. You will compete for 12 hours over 2 days performing web design and development tasks. Day 1 will involve building a fully functional website. Day 2 will involve a Skills Test which is a series of short web design and development tasks taking 15min – 30min per task.

This competition is the qualifying event for the 46th WorldSkills Competition in Shanghai, China 2021.

2 DESCRIPTION OF PROJECT AND TASKS

Day 1: 7 hours [8am – 4pm]

Your job is to design a Vancouver Aquarium database driven website. The separation of content from presentation/design is key. The database should contain page text information. Images should not be stored in the database. The menu should be created from the database.

The communication consultant with the Vancouver Aquarium will provide you with a wireframe of the desktop and mobile version of the website. From the wireframe you will design the website using: HTML, CSS, JavaScript, PHP and MariaDB. The website should be fully responsive.

SITEMAP (4 pages):

- Home
- Visit
- Explore
- Contact

SITE REQUIREMENTS

1. Logo [Provided]
2. Header
 - a. Menu
 - b. Phone
 - c. Social Media Links [icons provided]

3. Footer

- a. Address
- b. Google Map [image of map provided]
- c. Phone/Fax
- d. Menu
- e. Social Media Links [icons provided]
- f. Copyright

4. Home Page Slider – rotating graphic of 3 images with left/right arrows to change rotating graphic

You will be provided with text and images to use in your design. You are not required to use all the provided images or text. You may use your discretion in choosing text and image placement to give a good overall feel of how the website would look once constructed. You are free to modify any of the provided images and text in any way that you feel contributes to the quality of the design, however the content of any text will not be taken into consideration in evaluating your work.

Your task is to modularize the code of the website using PHP [ex: header.inc, nav.inc and footer.inc]. The purpose of the modularization is to ensure the website can be updated easily for future work.

Note: the following software is provided:

- Bootstrap 4+ provided
- jQuery 3+
- jQuery UI
- Font Awesome

COMPETITOR INSTRUCTIONS:

Build your website in the XAMPP htdocs folder, name your folder **day1-xx** where xx is your provincial code. Name your database **dbday1xx** where xx is your provincial code.

Ex: C:\xampp\htdocs\day1-sk , database name: dbday1sk

JUDGING CRITERIA

Area	Weight
Header	10
Content	8
Footer	6
Desktop Design	4
Mobile Design	8
PHP Modularization	8
Database Integration	6

Day 2: Skills Test [8am – 2pm]

Total Time Allowed: 5 Hours

Time for each task indicated beside each task

Objective

You will demonstrate your web development skills by completing a variety of small tasks that will covering the following topics.

- Graphic design
- Web design (HTML and CSS)
- PHP programming
- JavaScript

- Database

Set Up Instructions

Create a folder in the XAMPP htdocs folder named **day2-xx** where xx is your province code. Each task should be saved in its own folder named according to the task number (for example **task-1** or **task-2**).

Below are sample tasks that you will be expected to complete. These sample tasks should take you no more than 90 minutes to complete. At the national competition there will be 5 hours of tasks in total.

Sample Tasks

Task 1: Convert image to greyscale (2.5 marks, 15 minutes maximum)

Using your graphical editor, transform the given photo.jpg into greyscale. Save the transformed photo as photo1_greyscale.jpg.

Task 2: Smiley Face Feedback (5 marks, 30 minutes maximum)

You will be provided with three images representing three states for a “smiley face” feedback system – unhappy, neutral and happy. Create the CSS and JavaScript so that on the click event the smiley face transitions between the three states. The transition duration is 0.5 seconds starting from the neutral state.



Task 3: Create a HTML Form (2.5 marks, 15 minutes maximum)

For this task you need to use the Bootstrap framework to create a form to collect the following information:

- First Name
- Last Name

- Street Address
- City
- Province
- Postal Code

The province field is a select list that includes all Canadian provinces and territories. The fields should contain all of the appropriate classes and field types.

Task 4: Form Validation with PHP (5 marks, 30 minutes maximum)

All form submissions should be validated by the server regardless of whether there was any front-end validation. Your task is to validate the submission of a provided contact form. Ensure all fields have been filled out and that the e-mail address is properly structured. In addition, you must provide appropriate feedback to the user on form submission – inform them of any missing fields or if the submission was successful.

Task 5: Install WordPress (5 marks, 30 minutes maximum)

Install WordPress from the provided zip file along with any required databases and credentials. Create an 'editor' account in addition to the administrator account you created during the installation. Using the editor account, create one post in your WordPress installation to ensure everything works as expected. Ensure you provide the username and password for each account that you created.

Task 6: Create a Database (2.5 marks, 15 minutes maximum)

Create a database with two tables – products and categories. Each table must have a primary key. In addition, products must belong to a category, so you need to define this relationship in your database structure. Create three sample categories ('phones', 'tablets' and 'accessories') and create two sample products for each category ensuring that each product belongs to one category.



DIGITAL



THINKING



READING TEXT