

# TechFest v2.018 Competitive Event Playbook

Competition Title: Building a Website

**Competition Sponsor:** Complete Wellness Solutions.

**Competition Summary:** Competing teams will design, code, test, and deploy a website. Each team should come prepared to present their website and their development process.

**Competition Details:** Student teams will create their website prior to the competition to meet the requirements listed below. The entire project must be available for the judges to view.

Student teams will have 5 minutes to present to a panel of judges the details of a new website they have designed and implemented. The presentation should discuss how the website was developed, what tools were used, who on the team did what, and any problems encountered and how they were overcome during development.

After the team's presentation the judges will evaluate each team on their presentation and on the correctness, error handling, and visual appearance of their website.

## Implementation Requirements:

- All submitted work must be created by the team. 3<sup>rd</sup> party frameworks or libraries may be used (e.g., Angular, Bootstrap, jQuery, Moment, etc) or you may use only HTML, CSS, and JavaScript to implement your website.
- Graphic images may be used to enhance the appearance of your website.
- Your website should work on Internet Explorer, Chrome, FireFox, and Safari. You may assume only recent browser versions will be used during the judging.
- Your website may be tested on some or all the browsers listed above.
  
- If your website is available on the Internet please submit a link to your website via email to [chuck@cws4life.com](mailto:chuck@cws4life.com).
- If your website is not available on the Internet you may submit your complete website as a zip file to [chuck@cws4life.com](mailto:chuck@cws4life.com) and we will install it on a server for judging (however, see the next item regarding server side code)
- **If any server-side scripting (e.g., PHP, ASP.NET, etc) is used the judges must be able to view your server code, and website must be available on the Internet for judging.**
  
- **Your website code or the link to your website must be sent to [chuck@cws4life.com](mailto:chuck@cws4life.com) no later than midnight on Wednesday, November 14<sup>th</sup>.**
- **Any presentation materials must be sent to [chuck@cws4life.com](mailto:chuck@cws4life.com) no later than midnight on Wednesday, November 14<sup>th</sup>.**

## Website Requirements:

- Create a website that provides a user with a Body Mass Index (BMI) calculator.
  - The formula for calculating BMI is  $703 * (\text{weight in pounds} / (\text{height in inches squared}))$

- Your website must provide a method for user to input the information needed to calculate their BMI, i.e., their height and weight.
- The website user should be able to enter their weight in pounds and their height in feet and inches.
- The website user should be able to enter fractional inches and weight, for example “5 11.5” for height or “180.25” for weight.
- All inputs from the user should be validated both for correctness and reasonableness and the user notified if there is a problem. For example, if the user enters “10” or “abc” for their height in feet your web site should notify the user and not perform the calculations.
- The website will display the calculated BMI for the user with one decimal place, e.g., 24.7
- The website will display the category for the calculated BMI per the following ranges:

Category	BMI Range
Underweight	Less than 18.5
Normal weight	18.5 to 24.9
Overweight	25.0 to 29.9
Obese	30.0 or greater

**Presentation Requirements:**

- The teams should prepare a brief presentation describing their website.
- The presentation should introduce the team and should describe briefly how their website is structured, what tools and packages were used, and how it was tested.
- The presentation should describe what each team member did on the project. Any problems such as programming problems, scheduling issues, problems with equipment or networks and how they were overcome should be presented.
- Presentation materials such as a PowerPoint presentation are recommended as a good practice to provide a focused presentation. Please submit these as noted above by Wednesday, November 14<sup>th</sup> to [chuck@cws4life.com](mailto:chuck@cws4life.com).

**Pre-defined Team Roles:** None

**Maximum Number of Teams:** TBD.

**School Points Awarded for Gold, Silver, and Bronze:** Gold: 5,000, Silver: 3,000, Bronze: 1,000

**Scoring Rubric:** Student teams will be evaluated by a panel of judges, who will score each presenting team using the following criteria and point values. The top 3 teams will be awarded Gold, Silver, and Bronze points as listed above.

- Correctness. A set of valid inputs will be applied to website and the answers compared to known correct results. Maximum 100 points
- Error handling. A set of invalid inputs will be applied to the website to verify the user is notified and incorrect results are not generated. Maximum 100 points.
- Website visual appearance. Visual appeal of layout, colors, graphics. Maximum 100 points.
- Presentation. Clarity of presentation, efficient use of presentation time. Maximum 50 points.

**TOTAL POSSIBLE = 450 points**

**Event Hardware/Software Required:**

- Computer with webserver installed on it ready for deployment of competitor's website code (Provided by CWS)
- Computer for displaying presentation materials with MS Office and a PDF viewer installed. (Provided by CWS)
- Projector for presentation computer with HDMI cable. (Provided by TechFest)

**Materials/Supplies Required:** Link to the competitor's website code or the website in a single zip file. Presentation materials if used.

**Pre-Work Required:** Students must do all design work and coding ahead of time.

**Pre-Work Possible (not required):**