

PREPARATION GUIDELINES

Web Technologies

Dare to Dream, Unleash Your Talent!

JuniorSkills Championship



ABOUT SKILL

With the increased use of internet by people of all age groups. Websites and web pages have become a cardinal requirement of every small- and large-scale enterprise.

Websites for enterprises is a means to share information with their audience. It helps enterprises increase their reach to a wider audience.

Websites for general public provides a medium to express themselves, it helps break geographical barriers.

If you want to become someone who can contribute to small- and large-scale enterprises help grow their businesses, you should learn this skill.

By learning this skill, you can work as front-end programmer in IT Industry or launch your career as a freelancer.

In order to hone this skill, one should learn following technologies –

1. HTML5
2. CSS3
3. JS (ES5, ES6) and Web APIs of JavaScript
4. SQL
5. Relational databases – MySQL
6. Browser developer tools (Chrome, Firefox)

WHAT ARE YOU BEING TESTED FOR?

1. Ability to understand and comprehend business problems from given test project.
2. Ability to design solutions which can cater to masses.
3. Understanding of layout, hierarchy, consistency, balance in colour, text, multimedia, and other graphical elements.
4. Ability to create logical solutions for given requirements.
5. Ability to represent information (text, images, audio, video) on a webpage.
6. Ability to style webpages following a consistent theme.
7. Ability to perform CRUD (Create, Read, Update, Delete) operations on Relational Databases.
8. Ability to securely access user data to/from database.
9. Ability to design visually appealing webpages as per requirements.

SKILL COMPETITIONS

There will be 4 rounds in Junior Skills Competition. Each test project will consist of points mentioned below in the respective round:

Round 1: Screening Round (60-Multiple Choice Questions)

Questions in Screening round will be based on following

- HTML tags (text, multimedia, form, HTML5 tags)
- CSS properties (text styling, image styling, box model, background, borders)
- SQL commands (CRUD operations)
- JavaScript (Objects, DOM, Window object, Document Object, Utility functions)

Round 2: Qualifying Round (Problem-Statement based Test Project)

- Create a webpage using HTML5, CSS 3, and JavaScript

Round 3: Pre-Nationals (Problem-Statement based Test Project)

- Create a webpage using HTML5, CSS 3, and JavaScript
- Animations on webpage using CSS3 and JavaScript
- Dynamic HTML Elements with use of JavaScript

Round 4: Nationals (Problem-statement based Test Project)

- Create a webpage using HTML5, CSS 3, and JavaScript
- Usage of JavaScript WebAPIs to store information on client side and draw graphics on web page

REFERENCE LINKS

Round 1

HTML, CSS, JS, SQL

- <https://www.w3schools.com/html/>
- <https://www.w3schools.com/css/default.asp>
- <https://www.w3schools.com/js/default.asp>
- <https://www.w3schools.com/sql/default.asp>

Round 2, 3, 4

Tutorials (CSS 3, HTML5 and JS)

- <https://www.youtube.com/watch?v=8kK-cA99SA0&list=PLqGj3iMvMa4LvJ8VctoXnPI0dtE40wfid>
- <https://www.youtube.com/watch?v=UB1O30fR-EE&t=4s>
- <https://www.youtube.com/watch?v=qz0aGYrrlhU>
- <https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/HTML5>
- <https://developer.mozilla.org/en-US/docs/Learn/CSS>
- https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Client-side_web_APIs/Manipulating_documents
- https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Client-side_web_APIs/Drawing_graphics
- https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Client-side_web_APIs/Video_and_audio_APIs
- https://developer.mozilla.org/en-US/docs/Learn/JavaScript/Client-side_web_APIs/Client-side_storage
- <https://developer.mozilla.org/en-US/docs/Web/JavaScript>
- <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide>
- https://developer.mozilla.org/en-US/docs/Learn/Getting_started_with_the_web/Installing_basic_software