## SELF-ASSESSMENT GUIDE

**Qualification Title:** WEB DEVELOPMENT NC III

**COC 1**

**Developing Responsive Web Design**

**Units of Competency Covered**

- Utilize Software Methodologies
- Develop Responsive Web Design

**Instruction:**

Read each question and check the appropriate box to indicate your answer.

<table>
<thead>
<tr>
<th>Can I?</th>
<th>YES</th>
<th>NO</th>
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</table>

### Utilize Software Methodology

- Identify project requirements and software methodology
  - Determine project requirements and identify resources*
  - Select and assess appropriate type of software development methodologies in accordance with the project requirements*

- Apply software methodologies
  - Estimate project effort and duration based on software methodology*
  - Create project schedule based on software methodology
  - Monitor project flow based on project schedule

- Utilize code versioning tools
  - Identify, assess/select, install and utilize code versioning tool appropriately*

### Conduct Testing

- Determine testing requirements and objectives as required*
- Obtain and incorporate feedback to relevant changes
- Administer alterations or changes to the code
- Evaluate results of the system test to determine acceptability of the system

### Develop Responsive Web Design

- Perform research and analytics
  - Perform gathering of information from the clients and social media insights
  - Prepare list of relevant topics based on business noise and branding

- Identify and prepare design requirements
  - Determine client specifications/requirements for project
- Determine resources, budget and schedule for project as per client’s requirements
- List and match client’s goals with the research and analysis
- Develop sitemap, moodboards and wireframe with content creations, photos and graphics*

**Design and develop user-friendly responsive web interface**

- Identify and utilize design tools based on project requirements
- Prepare mock-ups and apply to user interface components*
- Apply user experience principles to the brand guidelines*
- Make revisions based on client’s requests

**Develop HTML/CSS website**

- Perform slicing of mock-ups based on approved design*
- Create HTML pages and CSS with navigation menu, hyperlinks and website contents are added on pages*
- Validate, implement revisions and submit HTML/CSS website on W3C standards*
- Prepare final HTML/CSS website for publishing*
- Utilize File Transfer Protocol (FTP) Program for uploading*

**Use/Deploy website content management system (CMS)**

- Identify and install Content Management System (CMS) as required using FTP*
- Select ready-made template and incorporate ready-made plugins to CMS
- Upload website contents to CMS based on project requirements
- Implement revisions, submit and publish website with CMS based on approved design*

**Performs search engine optimization (SEO)**

- Finalize list of keywords based on research and analytics
- Conduct checking of website to ensure latest SEO standards*
- Add search engine tools to the website for tracking and measurement
- Perform social media and website housekeeping based on project requirements

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I agree to undertake assessment in the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.

**Candidate’s signature:**

**Date:**

*NOTE: * Critical Aspects of Competency
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<tbody>
<tr>
<td>COC 2</td>
<td>Creating Interactive Websites</td>
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| Units of Competency Covered | - Utilize Software Methodologies  
- Create Interactive Websites |

**Instruction:**
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### Apply software methodologies

- Estimate project effort and duration based on software methodology*
- Create project schedule based on software methodology
- Monitor project flow based on project schedule

### Utilize code versioning tools

- Identify, assess/select, install and utilize code versioning tool appropriately*

### Conduct Testing

- Determine testing requirements and objectives as required*
- Obtain and incorporate feedback to relevant changes
- Administer alterations or changes to the code
- Evaluate results of the system test to determine acceptability of the system

### Create Interactive Websites

- Inspect and analyze HTML/CSS files
  - Check and analyze approved and complete layout information in the page source*
  - Identify goals, interaction of the contents and presentation of the web page in accordance with the initial specifications and plans*
Gather and review specifications and requirements

- Identify functional and non-functional requirements based on project specifications
- Select client-side script framework based on the project requirements for web application*
- Determine scope of the project (minimum requirements with FURPS)
- Determine budget, resources and schedule in the website/project requirements

Apply client-side script to HTML/CSS

- Prepare code editor using web design and application with appropriate major browser
- Apply client-side script structures/libraries, best practices and style guides with script tags and document object model (DOM) as required in the areas*

Configure client-side script efficiency

- Test client-side script syntax using a browser*
- Utilize debugging software/applications and client-side script code checkers to fix errors and use minification tools as necessary*
- Utilize content distribution network (CDN) from servers to deliver client-side script files to improve performance*

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<td>COC 3</td>
<td>Developing Website Backend Systems</td>
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**Units of Competency Covered**
- Utilize Software Methodologies
- Develop Website Backend Systems

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  - Determine testing requirements and objectives as required*
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**Develop Website Backend Systems**

- Develop a Project Plan
  - Determine project requirements and identify resources
  - Prepare and present project plan based on project requirements*
### Configure web/cloud server

- Identify and utilize web/cloud server provider based on project requirements
- Select server specifications and install required web server software based on project requirements
- Configure web server user access based on selected/required web/cloud server*
- Install and configure database server, HTTPS/SSL, security and firewalls*
- Comply the uptime requirements based on web/cloud server selected and project requirements

### Design Databases

- Identify attributes and data types based on project requirements
- Develop entity relationship diagram based on project requirements
- Design data structures*

### Develop Server Side Scripts

- Identify/Select appropriate side scripting language
- Design and develop CRUD server side scripts and web service/API based on project requirements*

### Develop web application using Model-View-Controller (MVC) framework

- Select and install appropriate MVC framework on server
- Program and test web application using MVC*

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• Create Interactive Websites  
• Develop Website Backend Systems |

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