Republic of Rwanda
Ministry of Education

RTB | RWANDA TVET BOARD

SWDWD301

# WEBSITE DEVELOPMENT

## DEVELOP A WEBSITE

## Competence

RQF Level: 3

Learning Hours
150

Credits: 15

Sector: ICT AND MULTIMEDIA

Trade: SOFTWARE DEVELOPMENT

Module Type: Specific

Curriculum: TVET Certificate III in Software Development

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**Issue Date: June, 2022**

<table>
<tr><td>Purpose statement</td><td colspan="6">This specific module provides the skills, knowledge and attitude for a learner to be competent in a range of routine tasks and activities. Upon completion of this module, the learner will be able to develop static website.</td></tr>
<tr><td rowspan="7">Delivery modality</td><td colspan="2">Training delivery</td><td>100%</td><td colspan="2">Assessment</td><td>Total 100%</td></tr>
<tr><td colspan="2">Theoretical content</td><td>30%</td><td rowspan="4">Formative assessment</td><td>30%</td><td rowspan="4">50%</td></tr>
<tr><td colspan="2">Practical work:</td><td rowspan="3">70%</td><td rowspan="3">70%</td></tr>
<tr><td>• Group project and presentation</td><td>20%</td></tr>
<tr><td>• Individual project /Work</td><td>50%</td></tr>
<tr><td colspan="3"></td><td colspan="2">Summative Assessment</td><td>50%</td></tr>
</table>

# Elements of Competency and Performance Criteria

| Elements of competency | Performance criteria |
|---|---|
| **1. Apply keyboard skills** | 1.1 Characters are properly used according to the task. |
| | 1.2 Shortcuts keys are properly used based on its functionality |
| | 1.3 Typing technique is accurately applied based on typing speed. |
| **2. Create web structures** | 2.1 Text editor and web browser is properly set up based on the project to be developed. |
| | 2.2 HTML file is efficiently created in accordance with the project page. |
| | 2.3 Page layouts are accurately created in line with the project goals |
| | 2.4 Page is properly optimized based on SEO & accessibility best practices |
| **3. Style web elements** | 3.1 CSS files are efficiently created in accordance with CSS best practices. |
| | 3.2 Typography is clearly defined and used in accordance with the project goals. |
| | 3.3 Media query rules are correctly set based on target devices. |

# Course content

| **Learning outcomes:** | **At the end of the module the learner will be able to:**<br>1. Apply keyboard skills<br>2. Create web structures<br>3. Style web elements |
|---|---|
| **Learning outcome 1:** Apply keyboard skills | **Learning hours: 20** |

**Indicative content**

- **Use of keyboard characters**
  - ✓ Definition
  - ✓ Types
  - ✓ Parts
- **Combination keys and their use**
- **Application of typing technique**
  - ✓ Typing tips
    - Hand positioning
    - Body posture
    - Ergonomics
    - Typing speed
  - ✓ Use of typing master
    - Check total number of words written per minute
    - Maintain writing errors
    - Games to improve typing speed

| Resources required for the learning outcome | |
|---|---|
| Equipment | • Computers |
| Materials | • Internet<br>• Electricity |

| | |
|---|---|
| Tools | • Typing editors(Notepad)<br>• Typing software |
| Facilitation techniques | • Practical exercise<br>• Demonstration |
| Formative assessment methods | • Written assessment<br>• Performance assessment |

| Learning outcome 2: Create web structures | **Learning hours: 70** |
|---|---|
| Indicative content | |

- **Definition of general key terms**
  - ✓ Webpage
  - ✓ Website
  - ✓ Web browser
  - ✓ Text editor
  - ✓ URL
  - ✓ Hyperlink
- **Setting up of text editor and web browser**
  - ✓ Examples of text editor
  - ✓ Types and function of web browser
  - ✓ Installing text editor and web browser
    - From storage drive
    - From internet
- **Creating a web page in HTML**
  - ✓ Description of website
    - Types
    - Function
  - ✓ Introduction to HTML
  - ✓ Description of HTML tag
    - Definition
    - Types and examples
    - Tag attributes
  - ✓ Developing first simple webpage
    - Use HTML page structure
    - Use HTML extension to save document
    - Display contents using web browser

- ✓ Developing webpage using HTML tag categories
  - Formatting tags
  - Table tags
  - Form tags
  - Heading tags
  - List tags
  - Media tags
  - Code tags
  - HTML frame tags
  - HTML Comment
  - Grouping tags (div, span)
- ✓ Use of Hyperlinks
  - Syntax
  - Default link appearance
  - Types
- ✓ Use of HTML graphics
  - Canvas tags
  - SVG tags

- **Managing page layout in HTML**
  - ✓ Definition of page layout
  - ✓ Parts of webpage
  - ✓ Use HTML tags to organise page layout
- **Optimizing webpage in HTML**
  - ✓ Definition of optimization
  - ✓ Benefit of applying SEO on webpage
  - ✓ Use HTML tags to optimize webpage
    - Meta
    - Title
    - Heading
    - Image alt
    - HTML semantic tags
  - ✓ Web accessibility
    - HTML Role
    - Test and Standard Validation

| Resources required for the indicative content | |
|---|---|
| **Equipment** | • Computers<br>• Projector |
| **Materials** | • Internet<br>• Electricity |

| | |
|---|---|
| **Tools** | • Text editor (Notepad, Notepad++, Sublime text)<br>• Web browser |
| **Facilitation techniques** | • Practical exercise<br>• Group discussion<br>• Demonstration<br>• Trainer guided |
| **Formative assessment methods** | • Written assessment<br>• Performance assessment |

| Learning outcome 3: Style web elements | **Learning hours: 60** |
|---|---|
| **Indicative content** | |

- **Introduction to CSS**
  - ✓ Definition
  - ✓ Utility
  - ✓ Types
- **Creating CSS files**
  - ✓ CSS syntax
    - Selector
    - Declaration
  - ✓ Use of CSS style types
    - Inline
    - Internal
    - External
    - Imported
  - ✓ Use CSS Visual rules
    - Font
    - Text
    - Colors and background colors
    - Opacity
    - Background image
  - ✓ Use CSS Display and positioning
    - Relative
    - Absolute
    - Fixed
    - Sticky
    - Block
  - ✓ Use CSS Box model
    - Height and width
    - Borders
    - Border radius
    - Padding

- Margin
- Visibility
- Auto

- **Applying Typography on webpage**
  - ✓ Introduction to typography
  - ✓ Use CSS scripts for typography
  - ✓ Use HTML tags required for typography
  - ✓ Embed and position project object in webpage content
- **Setting media query rules**
  - ✓ Description of media query rules
    - Definition
    - Identify the device types
  - ✓ Use of breakpoint
    - For Desktop
    - For Tablet
    - For Smartphone
  - ✓ Media orientation
    - Portrait
    - Landscape
  - ✓ Hide elements with media queries
  - ✓ Variable Font Size

| Resources required for the indicative content | |
|---|---|
| **Equipment** | • Computers<br>• Projector |
| **Materials** | • Internet<br>• Electricity |
| **Tools** | • Text editor (Notepad, Notepad++,Sublime text)<br>• Web browser |
| **Facilitation techniques** | • Practical exercise<br>• Group discussion<br>• Demonstration<br>• Trainer guided |
| **Formative assessment methods** | • Written assessment<br>• Performance assessment |

## INTEGRATED/SUMMATIVE ASSESSMENT

**INTEGRATED SITUATION**

**KIRA Clinic** is a private health center located at Nyagatare District. It offers different healthy services such as: treatment for illness, Laboratory testing and vaccination.

Despite the fact that the clinic uses advanced medical knowledge, they face the problem that many people do not know the services they provide.

As a front-end web developer, you are hired to develop a website which will satisfy and accomplish **KIRA Clinic** needs. You are ought to make the website that will looks like the following:

## Our Services

### Treatment for illness

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vitae imperdiet tellus dui arcu. Mauris neque, neque tellus at massa. Pharetra, vitae nunc fermentum, quisque. Potenti ullamcorper eget ultricies pretium ante.

### Basic laboratory

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vitae imperdiet tellus dui arcu. Mauris neque, neque tellus at massa. Pharetra, vitae nunc fermentum, quisque. Potenti ullamcorper eget ultricies pretium ante.

### Vaccinations for all

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vitae imperdiet tellus dui arcu. Mauris neque, neque tellus at massa. Pharetra, vitae nunc fermentum, quisque. Potenti ullamcorper eget ultricies pretium ante.

**KIRA CLINIC**

Rwanda, Nyagatare District
Street: KV 20 ST

Phone: +250 787 888 888
Email: info@kiraclinic.com

**Our Services**

- Consulitation
- Hospital
- Dentist
- Consulitation

**Follow us**

- Facebook
- Twitter
- LinkedIn
- YouTube

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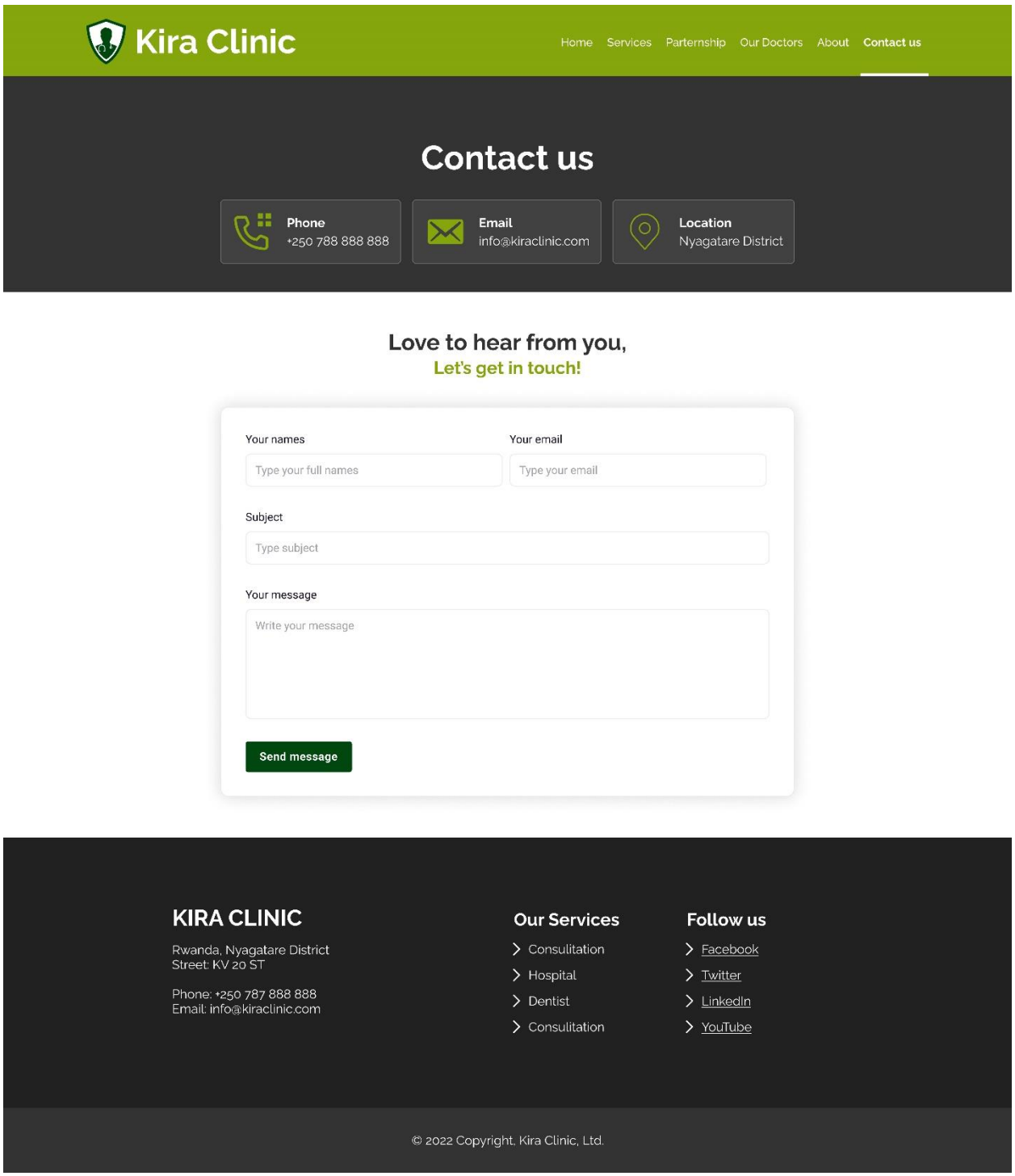


This task will be performed within 6 hours.
All materials, tools and equipment are provided by **KIRA Clinic**

**Resources**

| | |
|---|---|
| Tools | • Text editor (Notepad, Notepad++, Sublime text)<br>• Web browser |
| Equipment | • Computer |
| Materials/ Consumables | • Electricity |

| Assessable outcomes | Assessment criteria (Based on performance criteria) | Indicator | Observation | | Marks allocation |
|---|---|---|---|---|---|
| | | | Yes | No | |
| **Create web structures** | Setting up text editor and browser | Ind 1. Text editor is installed | | | 4 |
| | | Ind 2. Browser is installed | | | 4 |
| | Creating HTML file | Ind 1. Website is displayed | | | 3 |
| | | Ind 2. Logo is inserted | | | 3 |
| | | Ind 3. Home menu is created | | | 5 |
| | | Ind 4. Services menu is created | | | 3 |
| | | Ind 5. Parternship menu is created | | | 3 |
| | | Ind 6. Our Doctors menu is created | | | 3 |
| | | Ind 7. About menu is created | | | 3 |
| | | Ind 8.Contact Us menu is created | | | 3 |
| | | Ind 9.Contact Us menu is working | | | 4 |
| | | Ind 10. Background image is inserted | | | 5 |
| | | Ind 11. Images are inserted | | | 5 |
| | | Ind 12. Text is inserted | | | 5 |

| | | | | | |
|---|---|---|---|---|---|
| | | Ind 11. Social media links are created | | | 5 |
| | | Ind 12. Addresses are inserted | | | 4 |
| | | Ind 13. Copyright is created | | | 3 |
| | | Ind 14. Footer is created | | | 5 |
| | Respecting page layout | Ind 1. Text is arranged | | | 5 |
| | | Ind 2. color is defined | | | 5 |
| | | Ind 3. Background colors are defined | | | 5 |
| | | Ind 4. Images are arranged | | | 5 |
| Total marks | | | | | /90 |
| Percentage Weightage | | | | | % |
| Minimum Passing line % (Aggregate): 70% | | | | | |
| | | | | | |
| | | | | | |

**References:**

[1] Ben Stegner, Windows Shortcuts 101: The Ultimate Keyboard Shortcut Guide, July 2017

Available: Windows Keyboard Shortcuts 101: The Ultimate Guide (makeuseof.com)

[2] computer-keyboard-explanations.pdf (mo.gov) (visited on 25/6/2022)

[3] Learn HTML Tutorial - javatpoint (visited on 23/06/2022)

[4] Responsive Web Design Media Queries (w3schools.com)

[5] GPRS Tutorial (matfuvit.github.io) (visited on June 27, 2022)

**List of abbreviatons**

| | |
|---|---|
| SEO | Search Engine Optimazation |
| SVG | Scalable Vector Graphics |
| | |
| | |
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