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Republic of the Philippines  
**ISABELA STATE UNIVERSITY**  
City of Ilagan, Isabela  
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## Information and Communication Technology Department

### IT 314 – Web App

First Semester, SY 2022 – 2023

|                    |                        |                               |                                      |
|--------------------|------------------------|-------------------------------|--------------------------------------|
| <b>Name:</b>       | <b>Orbe, Catherine</b> | <b>Mod#1<br/>Description:</b> | Web Development Tools and Frameworks |
| <b>Student No:</b> | 20-10803               | <b>Inclusive Date/s:</b>      | 10/02-06/23                          |

**Instruction:** Provide necessary information on the blank fields. Change the filename using your full name with the following format: *module#-rizal-jose.docx* (use word document application). Identify also if it is a “**Quiz**” or an “**Activity**”.

| Module Activities  | Answer/s   |
|--|--|
| 1. Explain the concept of web development tools and how is important in web application development? | <p>Web development tools are important in developing dynamic web applications. Social networking sites such as Facebook, and Twitter, and e-commerce like Lazada, and Shopee are all example of websites that uses web tools to develop these web applications.</p> <p>There are two general types of the web development application. These are the front-end development (also called client-side development) and the back-end development (also called server-side development). Front-end development refers to constructing what a user sees when they load a web application which is the content, design, and how you interact with it. This is done with some codes such as HTML, CSS, and JavaScript. While the back-end development controls what goes on behind the scenes of a web application. A back end often uses a database to generate the front end. These back-end scripts are written in many different coding languages and frameworks, such as PHP, Ruby on Rails, ASP.NET, Perl, Java, Node.js, and Python.</p> |
| 2. Discuss the difference between server-side scripting and client-side scripting and cite examples. | <p><b>Client-side scripting:</b><br/>requires browsers to run the scripts on the client machine but does not interact with the server while processing the client-side scripts</p> <p><b>Server-side scripting:</b><br/>scripting involves server for its processing</p>   |
| 3. What is the purpose of the framework in developing an application?                                | <p>Frameworks offer a skeleton to build on so that programmers don't have to start from scratch when building software or web applications. In short, it will reduce your software or web development costs and reduce your development time.</p>  |



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| 4. Cite at least one example of why a framework is important in building web applications and explain. | Most frameworks either provide a templates system or make it easy to add on own template system so that common chunks of HTML that rarely change. For example: header and footer of your page need only to be written once. Inbuilt templates satisfy many developers with design available to create web product quickly.  |
| 5. Aside from the listed standard web technology tools cite at least one example of each tool.         | <p>Server Side-Scripting Language</p> <ul style="list-style-type: none"><li>- Node.js is an open-source, cross-platform JavaScript runtime environment and library for running web applications outside the client's browser. Ryan Dahl developed it in 2009, and its latest iteration, version 15.14, was released in April 2021. Developers use Node.</li></ul> <p>Client-side scripting languages</p> <ul style="list-style-type: none"><li>- AJAX (Asynchronous JavaScript and XML) is a technology that uses client-side JavaScript to handle user input, while transferring data to and from the server in the background (asynchronously).</li></ul> <p>Browsers</p> <ul style="list-style-type: none"><li>- Microsoft Edge is a proprietary, cross-platform web browser created by Microsoft. It was first released in 2015 as part of Windows 10 and Xbox One and later ported to other platforms as a fork of Google's Chromium open-source project: Android and iOS, macOS, older Windows versions, and most recently Linux.</li></ul> <p>Frameworks</p> <ul style="list-style-type: none"><li>- Laravel is a free and open-source PHP web framework, created by Taylor Otwell and intended for the development of web applications following the model–view–controller architectural pattern and based on Symfony.</li></ul> <p>Databases</p> <ul style="list-style-type: none"><li>- IBM also offered DB2 LUW for Windows, Linux, and Unix. DB2 11.5 is the most recent release, and it speeds up query execution.</li></ul> |