Assessment Task 2:

Short Answer Questions

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| Course code and name | ICT50220 Diploma of Information Technology |
| Unit code and name | ICTWEB514 Create Dynamic Web Pages |
| Due date | 28 / 05 / 2024 |
| Resources required | * Learner resource * Access to computer and internet |
| Decision making rules | All Questions must be answered correctly to be deemed satisfactory. |
| Instructions to be provided to learners | **Common Instructions**   * This assessment will be conducted using written question method. * It is to be completed in your own time. * The learner has two weeks to complete this task. * All questions must be answered. * Sufficient time will be provided in class for learners to read and review the assessment task and seek clarification on key points prior to undertaking the assessment task. * At this time any learner who require reasonable adjustments can discuss it with the assessor. It is important to ensure the integrity of the assessment is maintained and the intent is not compromised. (e.g. extension of time, oral questions and answers etc.). * The learner must complete the answers electronically and save it as Assessment Task 2 Short Answer Questions Student ID.docx. * Please include Full Name, Student ID and Group Name in the footer of the answer document. * Submit the saved file in the Assessment Task 2 folder Melbourne Polytechnic LMS * The learner must agree (via an ‘I confirm’ radio button) with the assessment submission terms and condition in Melbourne Polytechnic LMS prior to the submission. |

## Questions & Answers

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| 1 | Outline what is a programming control and design structure is? | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | Many times, we have to control the execution order of code to achieve the functions we want to complete.  There are three main structures in process control, namely sequential structure, branch structure and loop structure, which represent the order of three types of code execution. |  |  |

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| 2 | Explain what authentication and web security, why is important? | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | Authentication determines the various elements by which the system verifies someone's identity before granting access to files and any content requested.  The website authentication process works by comparing the user's credentials to those on file.  Web security blocks many web-based attacks by providing a proxy between users and their browsers.  As more and more users require access to the Internet, organizations must protect data and Internet network resources from network-based threats. Authentication and web security can help us achieve this goal. |  |  |

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| 3 | Explain what a session management in web application is? What is PHP code to start a session? Where do you insert the code to start the session in PHP | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | Session provides the ability to create variables, such as access rights and localization settings. During the session, these variables will be applied to every interaction the user has with the web application.  A web session is a series of network HTTP request and response transactions associated with the same user.  Web session management is a set of rules that governs the interaction between web-based applications and users.  In php, you can use the session\_start() function to enable the session. Usually called at the front of the page. |  |  |

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| 4 | Explain what a stateless statement in web application is? | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | Stateless statements usually occupy less resources and can be shared.  In statelessness, the transaction must end in a method.  Stateless does not save state specifically for a specific client.  Stateless Programming In a stateless program, the program does not maintain state.  Stateless means that no state is retained between different method calls. |  |  |

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| 5 | Please briefly describe what SSH and SSL are, and provide some security procedures. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | In SSH, all user authentication, commands, output, and file transfers are encrypted to prevent attacks on the network.  System administrators use SSH to remotely manage servers or connect securely to their personal computers.  SSL achieves secure communication between the client and server by authenticating each other, using digital signatures to ensure integrity, and using encryption to ensure privacy.  SSL is a protocol layer located between connection-oriented network layer protocols and application layer protocols.  security procedures:  Preprocessing is required before user data is displayed.  No user data may be illegally stored.  Maintain data integrity and ensure that data is not altered during transmission. |  |  |

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| 6 | Please briefly describe what http is, and explain the following request methods: GET, POST. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | HTTP is the most widely used network protocol on the Internet. All WWW files must comply with this standard.  HTTP specifies what messages a client may send to the server and what responses it may receive.  GET and POST are the two basic methods of HTTP requests to the server.  Submitting data in the GET method will cause security issues. For example, the username and password may appear in the URL and be easily accessed by others.  GET includes parameters in the URL, and POST passes parameters through the request body. |  |  |

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| 7 | Please briefly describe what HTML, CSS are, and explain their purpose. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | HTML:  Using HTML, the information that needs to be expressed is written into an HTML file according to certain rules, and is recognized by a dedicated browser, which is the web page we see.  HTML can be used to build your own WEB site. HTML runs on the browser and is parsed by the browser.  HTML commands can describe text, graphics, animations, sounds, tables, links, etc.  CSS:  CSS can statically modify web pages, and can also cooperate with various scripting languages to dynamically format various elements of web pages.  CSS styles are usually stored in style sheets.  CSS controls the display of different layout styles for tags within HTML. You can control the corresponding html tag color, font size, font, width, height, floating and other styles.  HTML is like a person, and CSS is the clothing. Dress up different styles of people through different clothing. |  |  |

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| 8 | Please briefly explain the syntax of creating a php function. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | PHP allows users to create a custom function using the function keyword. Grammatical structures:  function function name (parameter 1, parameter 2, ...)  {//Code within function}.  function format\_Html($text){  $text="$text";  echo $text; } |  |  |

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| 9 | Explain the difference between a client-side script and server-side script. (40 to 50 words) | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | In the client, the HTML document part and script part are returned to the client browser, where they are interpreted, executed and the page is updated in a timely manner.  Client-side scripts can reduce server load but can easily lead to page differences.  Server-side scripting means that the information needed to create a dynamic page is completed on the web server before being sent to the user.  Server-side scripting places increased demands on website servers.  Since the script is hosted on the server, it can be prevented from being copied, cloned, or inspected due to hacker vulnerabilities.  Server-side scripting provides greater protection for user privacy. |  |  |

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| 10 | Please briefly describe what log system is, and explain why log system is one of the most important debugging methods. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | By viewing the data contained in the log, it can help the development team quickly locate and solve problems.  With the help of system logs, administrators are likely to discover problems that they were never aware of before.  Key operation logs can monitor the detailed usage of system functions by users and can also be fed back to the customer to clearly understand the detailed usage of the system.  The logging system displays development-related information, error, and warning events, and can also monitor events occurring in the system. |  |  |

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| 11 | Please briefly describe why implementing function or class is useful programming techniques. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | Functions and classes are crucial in various languages and can help developers better standardize code during development and reduce online failures.  By encapsulating repeated code blocks through functions, modular programming of the code is achieved.  In classes, due to the existence of inheritance, even if the requirements change, the maintenance is only in the local module, so maintenance is very convenient and low-cost.  Classes make systems more flexible, easier to extend, and less expensive. |  |  |

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| 12 | Please briefly describe the following 3 organisational procedures:  1. Automatic code formatting in IDE  2. Post-compression error checking  3. Following code commenting conventions,  and provide one legislative procedures. | | |
|  | Answer | Satisfactory | Unsatisfactory |
|  | 1.Automatic code formatting in IDE  Automatic code formatting can automatically format code in less than a second with a simple hotkey combination.  After automatic code formatting, everyone has the same format, and it can reduce code merge conflicts.  IDEs often support automatic code formatting, reducing unnecessary discussions and allowing developers to focus more on writing useful code.  2.post-compression error checking  After code compression, the best practice is to check the compressed file to make sure the code is the same as it was before compression.  3.Following code commenting conventions  Code comments help speed up the development process.  Consistency in annotation standards among all developers improves the quality of the code and makes it more reliable.  Comments can help with patches or quick fixes. |  |  |

## Student Declaration

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| Please read, tick and sign below | | | |
| ☑ I declare that the attached assessment I have submitted is my own original work and any contributions from and references to other authors are clearly acknowledged and noted.  ☑ This document has been created for the purpose of this assessment only and has not been submitted as another form of assessment at Melbourne Polytechnic or any other tertiary institute.  ☑ I have retained a copy of this work for my reference in the event that this application is lost or damaged.  ☑ I give permission for Melbourne Polytechnic to keep, make copies of and communicate my work for the purpose of investigating plagiarism and/or review by internal and external assessors.  ☑ I understand that plagiarism is the act of using another person’s idea or work and presenting it as my own. This is a serious offence and I will accept that penalties will be imposed on me should I breach Melbourne Polytechnic’s plagiarism policy. | | | |
| Student Signature | Wangyizhuo | Date | 28-05-2024 |
| Please note that your assignment will not be accepted unless you have:   * Completed all sections of the assignment * Acknowledged all sources of other people’s contributions including references and Students’ names for group work assessments * Completed all areas of this Student assignment cover sheet. | | | |

## Marking Guide

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| Trainer/Assessor to complete the following: | | Yes | No |
| The learner has correctly answered all questions | |  |  |
| Comments and feedback | | | |
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| result | | | |
| ☐ Satisfactory  ☐ Not Satisfactory (resubmission required) – Due date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| Date Assessment Returned |  | | |
| Trainer/assessor Name |  | | |
| Trainer/Assessor signature | X | | |