**ASSIGNMENT COVER PAGE**

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| Student’s Matric No | LUC-NGA-002-ADM-1000421 | | |
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| Program | COMPUTER SCIENCE/CYBER SECURITY | | |
| Subject Name / Subject Code | OBJECT ORIENTED | | |
| Lecturer’s Name | MR MONSOR | | |
| Assignment Title | Object oriented | | |
| No. of Page (excluding this page) | 2 | | |
| Required words |  | Actual # of words |  |
| Soft copy included | Yes / No | | |
| **DECLARATION BY STUDENTS:**  *I certify that this assignment is my own work in my own words. All resources have been acknowledged and the content has not been previously submitted for assessment to LINCOLN or elsewhere. I also confirm that I have kept a copy of this assignment.*  Sign: Date: 2/06/2023 | | | |

1. **Write a basic explanation of Abstraction and clearly demonstrate with two or more examples the usage of Abstract class.**

* Abstraction means displaying only essential information and hiding the details. Data abstraction refers to providing only essential information about the data to the outside world, hiding the background details or implementation.

1. **Write an example of php script to demonstrate the use of Namespace**

Namespaces are qualifiers that solve two different problems:

1. They allow for better organization by grouping classes that work together to perform a task
2. They allow the same name to be used for more than one class

For example, you may have a set of classes which describe an HTML table, such as Table, Row and Cell while also having another set of classes to describe furniture, such as Table, Chair and Bed. Namespaces can be used to organize the classes into two different groups while also preventing the two classes Table and Table from being mixed up.

Example

Create a Table class in the Html namespace:

<?php  
namespace Html;  
class Table {  
  public $title = "";  
  public $numRows = 0;  
  public function message() {  
    echo "<p>Table '{$this->title}' has {$this->numRows} rows.</p>";  
  }  
}  
$table = new Table();  
$table->title = "My table";  
$table->numRows = 5;  
?>  
  
<!DOCTYPE html>  
<html>  
<body>  
  
<?php  
$table->message();  
?>  
  
</body>  
</html>

1. **Write an OOP Program to demonstrate function overloading and function overriding.**

Function Overloading provides multiple definitions of the function by changing signature. Function Overriding is the redefinition of base class function in its derived class with same signature. An example of compile time polymorphism. An example of run time polymorphis

1. **What are the limitation of OOP**

Limitations of object-oriented programming:

1. The size of the programs created using this approach may become larger than the programs written using procedure-oriented programming approach.
2. Software developed using this approach requires a substantial amount of pre-work and planning.
3. OOP code is difficult to understand if you do not have the corresponding class documentation.
4. In certain scenarios, these programs can consume a large amount of memory.