

## Class Activity – Topic 1 Progress Activity

This activity will improve your understanding of using single and double quotes, string concatenation, adding new lines, creating PHP variables, selection structures and loops.

### Variables, Datatypes and Operators

You are required to develop a PHP page to create PHP variables, assign the provided values to them and then produce the output as shown in **Figure 1**.

```
Student name: John Smith
Course: Victoria University Diploma of Information Technology
Enrolment status: ENROLLED
Total course fee: $6,000.00
Subject fee per semester: $750.00
```

Figure 1: Topic1 Progress Activity output

Follow the steps below:

1. Create a new PHP file named **topic1\_progress.php**.
2. Add valid PHP variable names and assign the values as given in Table 1.

Valid PHP variable name	Value	Example: Assigning value
given name (e.g. \$fname)	John	\$fname = "John";
last name	Smith	
Course	VDIT	
fees per semester (This is a dollar value)	3000	
Number of semesters in the course	2	
enrolment status	true	
number of subjects per semester	4	

Table 1: Variables to declare and values to assign

3. Display the enrolment status as shown in the **output provided in Figure 1**. Use the code provided below as guidance to form a ternary operator based expression to find the enrolment status).

```
// enrolment status
$enr_status = true;
if ($enr_status){
    $enrolment = 'ENROLLED';
}else{
    $enrolment = 'DISCONTIN';
}
```

- There are 3 courses offered by VU College, VDIT, VDBE, VDEN. The descriptive names are:  
VDIT – Victoria University Diploma of Information Technology  
VDBE - Victoria University Diploma of Business (Enterprise)  
VDEN - Victoria University Diploma of Engineering

You are required to display the descriptive course name as shown in **Figure 1**.

Use a selection structure to pick the correct description of the course. (Hint: as you change the value of the Course ID variable, the course description displayed should change accordingly).

- Your code must calculate the total cost of the course. (Hint: as you change the number of semesters or the fee, the cost displayed should change accordingly).  
See output provided in **Figure 1**.
- Your code must calculate the subject cost per semester. See output provided in **Figure 1**.

## Decisions

You are required to create a PHP page that will display a student's grade based on their result. Name the file "grades.php". Your script should declare a variable to store the student result (e.g. 59) and the grade. Assign a result between 0 and 100 in your code. The script should process the result in a set of "if and else if" statement to determine what grade should be assigned for the entered result (e.g. 59 => "E") and print the student result and the corresponding grade to the web page.

Use the following scheme to design your program:

Result	Grade
90+	A
80 - 89	B
70 - 79	C
60 – 69	D
50 – 59	E
< 50	F

## Loops

You are required to create a PHP page that will generate 8 sets of tattslotto numbers (6 random numbers between 1 and 45) and display the numbers as per the following sample output. Each set of 6 random numbers are printed on a separate line. Name the file “tattslotto.php”.

```
34 7 13 23 11 45
35 6 15 24 12 41
33 8 16 28 8 39
34 7 13 23 11 45
35 6 15 24 12 41
33 8 16 28 28 39
44 17 23 27 3 15
3 5 29 26 10 37
```

**Hint:** Use nested loops. Use the following code sample to create a random number between 1 and 45 in PHP:

```
$number = rand(1, 45);
```

## More Advanced

Improve your solution so that the page doesn't print zero values or repeat the same number within each set.