Day 3 – C++ Workshop

```
#include <iostream>
using namespace std;
// Using Arrays : First Program
int main () {
int myNum[5];
for (int i = 1; i <= 5; i++) {
cout << "Kindly Enter The Marks Of Subject " << i << " : ";
cin >> myNum[i];
}
for (int i = 1; i <= 5; i++) {
cout << "The Marks Of Subject " << i << " is " << myNum[i] << endl;
}

return 0;
}
```

```
#include <iostream>
using namespace std;
// Using Arrays : Calculating Percentages Of Student's Scores
int main () {

float myInput[5];
float myPercentage;
cout << "Welcome!" << endl;
cout << "Let's Calculate The Percentage Of Student's Scores..." << endl;
int sum = 0;
for (int i = 0; i < 5; i++) {
cout << "Kindly Enter The Score Of Subject " << i << " : ";
cin >> myInput[i];
sum = sum + myInput[i];
}
myPercentage = sum/5;
cout << "The Percentage Of The Student Is : " << myPercentage << " % " << endl;


return 0;
}
```

```
#include <iostream>
using namespace std;
// Developing A Program To Reverse The Number Entered By The User;
int main () {
int myInput;
int myNum;
```

```
int reversed_number = 0;
cout << "Welcome!" << endl;
cout << "Let's Reverse The Numbers That You (User) Enters!" << endl;
cout << "Kindly Enter A Number: ";
cin >> myInput;
while (myInput > 0) {
int last_digit = myInput%10;
reversed_number = reversed_number*10+last_digit;
myInput /= 10;
}
cout << "The Reversed Number Is : " << reversed_number << endl;
}
```

If there are syntax errors, the compiler will not compile the code.
The code CAN compile but still display the incorrect output, and this is due to logical errors (incorrect mathematical formulas, etc.)

```
#include <iostream>
using namespace std;
// Developing A Program To Print Patterns;
// RIGHT NOW, THIS PROGRAM PRINTS A RIGHT-ANGLED TRIANGLE OF NUMBERS;
int main () {
int myInput;
while (true) {
cout << "Kindly Enter The # Of Rows To Print: ";
cin >> myInput;
for (int i = 1; i <= myInput; i++) { // This outer loop handles the rows.
for (int j = 1; j <= i; j++) { // This inner loop handles the columns.
cout << i << " "; // The " " creates space and essentially makes the output readable and
clean.
}
cout << endl;
}
}
}
```

```
#include <iostream>
using namespace std;
// Developing A Program To Print Patterns;
// Printing A Rectangle & Printing The Area Of The Rectangle;
int main () {
int myRows;
int myColumns;
int myArea;
while (true) {
```

```
cout << "Let's Print A Rectangle!" << endl;
cout << "Let's Input The Dimensions..." << endl;
cout << "Kindly Enter The # Of Columns: ";
cin >> myColumns;
cout << "Kindly Enter The # Of Rows: ";
cin >> myRows;
for (int i = 1; i <= myRows; i++) { // This outer loop handles the rows.
for (int j = 1; j <= myColumns; j++) { // This inner loop handles the columns.
cout << " * ";
}
cout << endl;
}
myArea = myRows*myColumns;
cout << "The Area Of This Rectangle Is : " << myArea << " sq. metres" << endl;
}
}
```

```
#include <iostream>
using namespace std;
// Developing A Program To Print Full Pyramid;
int main() {
// Step 1: Declare a variable for the height of the pyramid
int height;

// Step 2: Ask the user for the height of the pyramid
cout << "Enter the height of the pyramid: ";
cin >> height;

// Step 3: Loop to build the pyramid
for (int i = 1; i <= height; i++) {
// Print spaces for alignment
for (int j = i; j < height; j++) {
cout << " ";
}
// Print stars for the current level
for (int k = 1; k <= (2 * i - 1); k++) {
cout << "*";
}
// Move to the next line after each level
cout << endl;
}

return 0;
}
```