| **Activity No. 2** | |
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| **Hands-on Activity 1.1 Basic C++ Programming** | |
| **Course Code:** CPE010 | **Program:** Computer Engineering |
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| **6. Output** | |
| | Section | Answer | | --- | --- | | Header File Declaration Section | #include <iostream> | | Global Declaration Section |  | | Class Declaration and  Method Definition Section | class Triangle{  private:  double totalAngle, angleA, angleB, angleC;  public:  Triangle(double A, double B, double C);  void setAngles(double A, double B, double C);  const bool validateTriangle();  }; | | Main Function | int main(){  //driver code  Triangle set1(40, 30, 110);  if(set1.validateTriangle()){  cout << "The shape is a valid triangle.\n";  } else {  cout << "The shape is NOT a valid triangle.\n";  }  return 0;  } | | Method Definition | Triangle::Triangle(double A, double B, double C) {  angleA = A;  angleB = B;  angleC = C;  totalAngle = A+B+C;  }  void Triangle::setAngles(double A, double B, double C) {  angleA = A;  angleB = B;  angleC = C;  totalAngle = A+B+C;  }  const bool Triangle::validateTriangle() {  return (totalAngle <= 180);  } | | |
| **7. Supplementary Activity** | |
| 1. Create a C++ program to swap the two numbers in different variables.   #include <iostream>  using namespace std;  int main() {  int temp;  int a = 1;  int b = 3;    temp = a;  a = b;  b = temp;  cout << a << endl;  cout << b;  }   1. Create a C++ program that has a function to convert temperature in Kelvin to Fahrenheit.   #include <iostream>  using namespace std;  int main () {  int kelvin;  float fahrenheit;    cout << "Enter a value:";  cin >> kelvin;    farenheit = 1.8 \* (kelvin - 273) + 32;  cout << "Kelvin to farenheit:" << fahrenheit   1. Create a C++ program that has a function that will calculate the distance between two points.   #include <iostream>  #include <cmath>  using namespace std;  int main () {  int pointA1;  int pointB1;  int pointA2;  int pointB2;  int distance;  cout << "Enter point A1: ";  cin >> pointA1;  cout << "Enter point A2: ";  cin >> pointA1;  cout << "Enter point B1: ";  cin >> pointB1;  cout << "Enter point B2: ";  cin >> pointB2;  distance = sqrt(pow(pointA2 - pointA1, 2) + pow(pointB2 - pointB1, 2));  cout << "This is the distance between two points: " << distance;  }   1. Modify the code given in ILO B and add the following functions:   a. A function to compute for the area of a triangle  b. A function to compute for the perimeter of a triangle  c. A function that determines whether the triangle is acute-angled, obtuse-angled or ‘others.’ | |
| **8. Conclusion** | |
| In this activity , I regained my knowledge on the basics of c++ programming language. It was insightful and challenging at the same time. For some reason, the syntax of c++ seems unknown to me but when I realized the structure of writing code on it, the pattern was obvious. I can improve my coding skill with more practice. Some native functions were not really familiar, but it brings excitement as I dig into the code. It’s not easy to re-learn a language in which I haven't touched for a long time, yet it opens some doors into new technology and application on a real world basis. | |
| **9. Assessment Rubric** | |
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