**North South University - Spring 2023**

Course: CSE225L Assessment: Lab 1 / HW 1 / PS 1

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// Task-1 Codes

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| #include <iostream>  using namespace std;  int main()  {  int number1, number2;  cout << "Enter First Number: ";  cin >> number1;  cout << "Enter Second Number: ";  cin >> number2;  cout << endl << "Sum is: " << (number1 + number2) << endl;  return 0;  } |
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// Task-2 Codes

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| #include <iostream>  using namespace std;  int main()  {  int number, fact = 1, i;  cout << "Enter a Number: ";  cin >> number;  for(i = 1; i <= number; i++){  fact \*= i;  }  cout << endl << "Factorial of " << number << " is: " << fact << endl;  return 0;  } |
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// Task-3 Codes

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| #include <iostream>  using namespace std;  int main()  {  int number1, number2, result;  char operation;  cout << "Enter First Number: ";  cin >> number1;  cout << "Enter Second Number: ";  cin >> number2;  cout << "Enter Operation Sign(+,-,\*,/): ";  cin >> operation;  switch(operation){  case '+': result = number1 + number2;  break;  case '-': result = number1 - number2;  break;  case '\*': result = number1 \* number2;  break;  case '/': result = number1 / number2;  break;  default:  cout << endl << "Wrong Operation Sign Entered!! Try Again..." << endl;  return 0;  }  cout << endl << "Result: " << result << endl;  return 0;  } |
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// Task-4 Codes

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| #include <iostream>  #include <cmath>  using namespace std;  bool isPrime(int n)  {  if(n < 2) return false;  if(n == 2) return true;  if(n%2 == 0) return false;  for(int i = 3; i <= sqrt(n); i+=2){  if(n%i == 0) return false;  }  return true;  }  int main()  {  cout << "Prime numbers between 300 to 500:" << endl;  for(int i = 300; i <= 500; i++){  if(isPrime(i)){  cout << i << ", ";  }  }  return 0;  } |
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// Task-5 Codes

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| #include <iostream>  using namespace std;  class Box{  private:  double width;  double height;  double depth;  public:  Box();  Box(double w, double h, double d);  void setWidth(double w);  void setHeight(double h);  void setDepth(double d);  double getWidth();  double getHeight();  double getDepth();  double getVolume();  void print();  }; |
| Box::Box(){  width = 1;  height = 1;  depth = 1;  }  Box::Box(double w, double h, double d){  width = w;  height = h;  depth = d;  }  void Box::setWidth(double w){  width = w;  }  void Box::setHeight(double h){  height = h;  }  void Box::setDepth(double d){  depth = d;  }  double Box::getWidth(){  return width;  }  double Box::getHeight(){  return height;  }  double Box::getDepth(){  return depth;  }  double Box::getVolume(){  return width \* height \* depth;  }  void Box::print(){  cout << "Width: " << width << endl << "Height: " << height << endl << "Depth: " << depth << endl << "Volume: " << getVolume() << endl;  } |
| int main()  {  cout << "Box-1 Information: " << endl;  Box box1(3, 4, 5);  box1.print();  cout << endl << "Box-2 Information: " << endl;  Box box2;  box2.print();  cout << endl << "Box-2 Properties Updating:" << endl;  double newWidth, newHeight, newDepth;  cout << "Enter width: ";  cin >> newWidth;  cout << "Enter height: ";  cin >> newHeight;  cout << "Enter depth: ";  cin >> newDepth;  box2.setWidth(newWidth);  box2.setHeight(newHeight);  box2.setDepth(newDepth);  cout << endl << "Box-2 New Information:" << endl;  box2.print();  return 0;  } |
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