Assignment for Lecture 10

1. Develop the Complex class as the following specification in C++ and Java:

```
#ifndef COMPLEX_H
#define COMPLEX_H

class Complex {
private:
  double real;
  double imag;
 public:
  Complex(double real = 0.0, double imag = 0.0);
  double getReal() const;
  void setReal(double real);
  double getImag() const;
  void setImag(double imag);
  void setValue(double real, double imag);
  void print() const;
  bool isReal() const;
  bool isImaginary() const;
  // Add the given Complex instance into this instance, and return this instance by reference
  Complex & addInto(const Complex & another);
  Complex & addInto(double real, double imag);
  // Add the given Complex instance and this instance, return the sum in a new instance by value
  Complex addReturnNew(const Complex & another) const;
  Complex addReturnNew(double real, double imag) const;
};

#endif
```

2. Implement the class Date in C++ **(Date.h, Date.cpp)/Java**



Then test the class (TestDate.cpp) in a program that create the dates Sunday, 1 Jan 2012, Tuesday, 31 Jan 2012, Monday, 31 Dec 2012 then display information about the next day. Display the previous day of 1/1/2012 and the day after one year of 29/02/2012

3. Programming Challenges (Tony Gaddis C++)

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