

# CS23021 Computer Science I

## Project #7

Due at 11:59pm on Monday, December 4, 2006

The assignment contains two parts: (1) implementing a birth date class derived from date class (2) accounting program using STL vector and handling exceptions. For the first part of the project, you can reuse the code for your project #5.

**Birth date.** Create a class `Bdate` that stores a person's (first) name and birth date. The class should be derived from `Date` class created in Project 5. The class should inherit overloaded comparison and override extraction and insertion operators. For insertion you can assume that first a date (month day year) and then a name (one word) is entered:

```
12 29 1953 Joe
```

Place your class definition and implementation in `bdate.h` and `bdate.cpp` respectively. Your class has to work with a test program provided in `testbdate.cpp`. The test program is in the subversion repository.

**Accountant using vectors.** Write a program that accepts a sequence of integers, prompts the user for the index of the integer and prints this integer. Note that the input may span multiple lines. Zero signifies the end of input. It should be NOT printed. You should NOT assume a bound on input size. Here is an example dialogue:

```
Enter integers: 5 6 22 5
22 7
6 0
Enter index: 5
22
```

Your program should gracefully handle out-of-range index input:

```
Enter integers: 5 6 22 5 22 7 6 0
Enter index: 10
No such index
```

You should use STL vector to store the integers. You should implement dynamic vector size change as the user inputs more integers. You should use exceptions to handle out-of-range index entry. Place your program in a single file: `accountant.cpp`

The files needed for submission are `bdate.h` and `bdate.cpp`, `date.h` and `date.cpp` (original Date class implementation) and `accountant.cpp`.