## The University of Texas at Dallas CS 6320 Professor Moldovan Homework 1 Due February 9, 2015 before the class

(This homework is similar to Problem 2.4)

Design and write a program that recognizes simple date expressions like: "March 15", "the 22nd of November", "Christmas", "Labor Day". Your program should recognize all such "absolute" dates, but not "deictic" ones relative to current day like "the day before yesterday". Each edge of the graph should have a word or a set of words on it. Whenever possible use classes of words to avoid having too many arcs (e.g. holidays for Labor Day, Memorial Day, etc).

Test your program on different text files and make sure it works. Partial credit may be given to programs that almost run. Your program will be tested on a randomly selected file and your grade will be proportional to the accuracy of the program output. In order to encourage a good programming style, part of the grade will take that into consideration. Submit the source code, the executable and readme files via eLearning. If you have any questions please see the TA during office hours or make an appointment with her. Your programs may be written in C++, Java or Python.

## **Text to test your program:**

He sometimes pondered the events of his life, looking at things in a different light each time. How differently things would have been for him if his parents, then unmarried, had not met on the long voyage across the Atlantic. Their passports said they arrived the 12th of August, 1914, 90 years ago.

They trekked from Newfoundland to his uncle's cabin in Minnesota, arriving on a cold November 21st that same year. As a matter of coincidence, they married almost exactly one year later, on the 11th of November 1915. It surprised him that his parents never spoke of their trans-Atlantic adventure, as if it were as normal as a visit with neighbors. What was miraculous to them was his late-night arrival on April 14, 1917. He was their first and only child, and as such was the center of life for them. He was doted upon in a manner which was unnatural for the time. He enjoyed the attention and unending stream of affection. Their life was so different than today, but in some ways similar. They had a small, two bedroom cabin, no larger than the apartment his son moved him to July 24, 2002. The main mode of transportation was by foot, as his has been since relinquishing his driver's license the 11th of April, 3 days before his 87th birthday.

He recalls with joy the first car his father purchased. It was the 29th of March 1927, and the automobile was the much more stylish Chevrolet, costing just \$200 more than a Model T. They were one of the first families on the Range to get a car, with the exception of the mine managers and commercial vehicles like the dairy truck and the Hupmoble, which was the beginning of the Greyhound bus line, used to transport miners to the pit.

His mind wandered to his young boy fascination of all forms of transport, and how he sought out any and all stories of flight. Remembering Lindbergh's success on that early May 20th morning of 1927, he saw the pictures in his mind of the barnstormers who occasionally came through the area. In fact, it was during one of those visits, the 7th of August, 1930, when he met the girl he was to marry, although he didn't know it at the time.

His family did not feel the depression much, at least it did not impact their daily lives as

it did many others. It was still fairly easy for a hard working young man to find work, and from the 15th of May to the 15th of September (during his school break) of every year he worked at nearby farms. This continued through his 15th year.

It was then, May 2, 1933, he caught the lucky break of getting a part-time job at the mine. The product of the open-pit, iron ore mines was in high demand, and US Steel needed all able bodied men to keep the shovels running. If the farms were the heart, the mines were the backbone of the Range. Despite the dangerous nature of the work, the non-unionized positions were coveted, even after the Hibbing "North 40" relocation on July 7th, 1910. He had his eye on the big shovels, and spent hours with the seasoned operators. They liked the eager young man, who could already hold his liquor with the best of them, and when an old-timer retired on the 1st of August, opening a slot for a driver, he was thrilled the close-knit senior group got him the position. He did not go back to school September 3rd of that year. He had only completed through the 10th grade, but had one of the best paying positions in the mine, and didn't feel he could do any better by finishing high school. He thought now, September 14, 2004, 71 years later, how easily he could still recite The Rhyme of the Ancient Mariner, as if he had learned it yesterday. During the next few years, he had a good time, basking in his perceived wealth, and courting his future wife, whom he married on the 10th of November 1939. She was the youngest child of Finnish dairy farmers, and he had a lot of convincing to do, in order to procure her parents agreement to their engagement. He worked a full time job at the mine—often 12 hour shifts through the middle of the cold, Minnesota winter nights, and then a full day's work at the Ollila farm. She was expected to take over the expansive dairy, but had plans to the contrary.

They purchased a home in the model city of Calumet on January 9th, 1942; and their son was born October 29th of '43. His mother had the upstairs apartment in the home, and although it suited him fine, he chuckled as he remembered the fights between his new wife and mother, then saddened as he recalled her passing on July 17, 1968. They worked hard and played hard for the next several years, enjoying life on the growing Range and visiting all areas of the country. Their only son married the 4th of September, 1961, and was quite busy making memories of his own, but that's someone