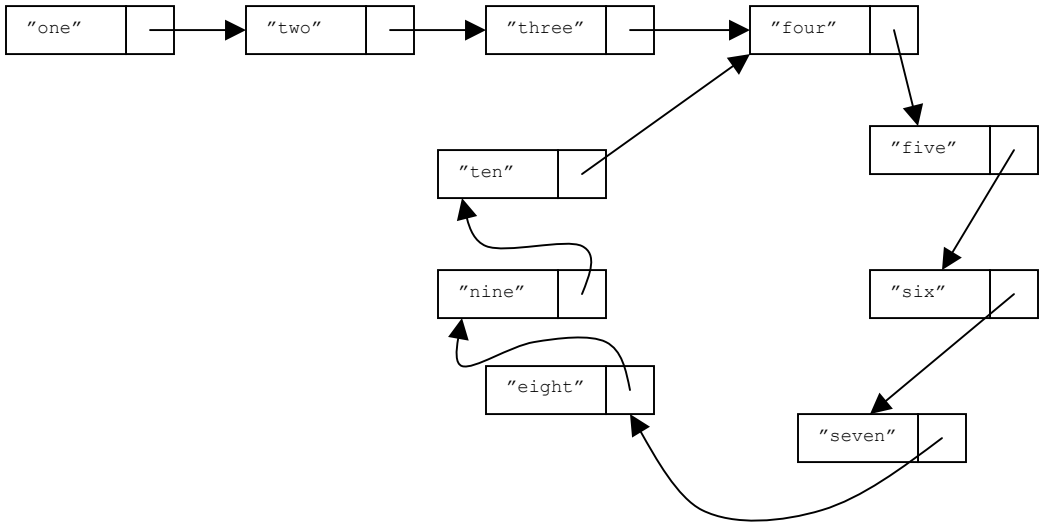
CSCI 333 Fall 2002
Project 1

This project is due 30 September.

In class, we looked at a program to create "lollypops", linked lists with loops. This project involves the creation and testing of linked lists.

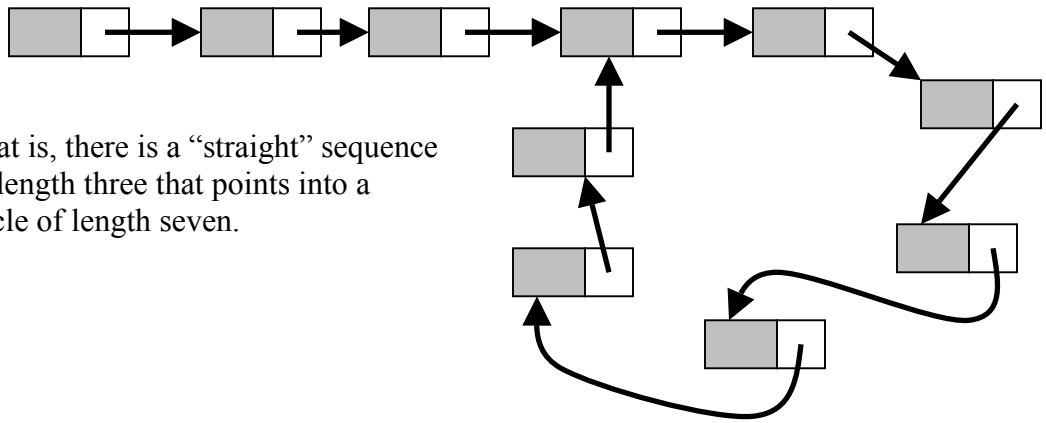
You are to write C++ programs that do, at the least, three different things.

First, it must contain a routine that generates a lollypop of the following format:



In this particular case, the data or element field of the link list should be an array of characters of size 16. Note that there is a difference between having the element fields being an array of characters versus being a pointer to a character array.

Second, it must contain a `templated` routine that checks if a generic linked link is a lollypop of the following form:



That is, there is a "straight" sequence of length three that points into a cycle of length seven.

Finally, you must write a main routine that calls your procedure to generate the loop satisfying the first requirement and tests it using the procedure that satisfies the second requirement.

You can do this project in groups of up to three students. You may use any of the code presented in class lectures or in the textbook *provided that you clearly comment your use of others code*.

Here are some on-line links that you may find useful:

The `templated` polylink class

A lollypop generator for integer list and associated main routine

You will turn in your project by store all of your C++ code for your project within a read-protected subdirectory `csci/333/Project1` of your UNCA CSCI Unix account. If you work in a group, you should also store your group "diary" in this directory. Here are the commands for creating and read-protecting this directory:

```
mkdir -p csci/333/Project1
chmod go-a csci/333/Project1
```

Because the Computer Science workstations have special programs that allow CSCI faculty to read any files stored within a user directory called `csci`, I'll be able to retrieve your files for grading.