

# CS1372 Summer 2009 Homework 8: Linked Lists

This Assignment is due via T-Square Thursday, July 16 at 11:55pm

## Purpose

This assignment is to learn about linked lists.

## Instructions

For this assignment, you may use any video mode you deem suitable. However, the graphics must run smoothly. You should create a ball that moves around the screen. You should also create two spots on the screen, clearly marked. When a ball passes over the first spot, it should divide into two balls. When a ball passes over the second spot, it should disappear. Further, pressing the A button should add a ball to the screen. All your balls should be stored in a linked list. You must have the following:

1. A library for a singly linked list. If you desire, you may include a tail pointer.
2. A function to add an element to the tail of the list
3. A function to remove an element from the list.
4. A linked list containing only the balls on the screen.

Your linked list must use dynamic memory. There should not be a maximum number of elements allowed. The behaviour of the balls when splitting is up to you. Submit all C files, header files, and your makefile on T-Square. In addition, be sure that all code files are .c files and not .cpp files. If you use .cpp, the compiler does not enforce proper C syntax.

As before, include the following in the top of your main file:

```
////////////////////////////////////
// Name:                                     //
// Prism Account:                           //
// Collaboration:                           //
//   "I worked on the homework assignment alone, using only //
//   course materials."                       //
//           or                               //
//   "I received outside aid on this assigned from the following //
//   person(s):                               //
////////////////////////////////////
```