

Project 02 – Linked List

For this project, you will complete the provided partial C++ program that implements an unsorted linked list structure. The header file (linked_list.h) is given as follows. You will create a .cpp file called linked_list.cpp and implement the Linked_List class.

```
#include <iostream>
using namespace std;

// Define a structure to use as the list item
struct ListItem
{
    int        key;
    float      theData;
    ListItem *next;
};

class Linked_List
{
private:
    ListItem *head;           // Pointer to head of the list

public:
    Linked_List();             // Class constructor
    ~Linked_List();            // Class destructor
    void ClearList();           // Remove all items from the list
    bool Insert(int key, float f); // Add an item to the list
    bool Delete(int key);        // Delete an item from the list
    bool Search(int key, float *retVal); // Search for an item in the list
    int ListLength();           // Return number of items in list
    bool isEmpty();             // Return true if list is empty
    bool isFull();              // Return true if list is full
    void PrintList();           // Print all items in the list
};
```