

C++ Student class [problem 1]

```

Student(const String &name);
    // create a student with the specified name and a total score of 0
void addScore(int score);    // adds score to the total score for this student
int getScore() const;        // returns the total score for this student
string getName() const;      // returns the name of this student

```

Java String class (selected methods)

```

char charAt(int index)
    Gets the char at position index (counting from 0)

int length()
    The number of characters in the string.

String substring(int beginIndex, int endIndex)
    Returns a new string that is a substring of this string. The substring begins at the specified beginIndex and
    extends to the character at index endIndex - 1.

String substring(int beginIndex)
    Returns a new string that is a substring of this string. The substring begins at the specified beginIndex and
    extends to the end of this string.

```

Java Stack<ElmtType> class

```

Stack()
    Creates an empty stack.

boolean empty()
    Returns true iff the stack is empty.

ElmtType peek()
    Looks at the object at the top of this stack without removing it from the stack.

ElmtType pop()
    Removes the object at the top of this stack and returns that object as the value of this function.

void push(ElmtType e)
    Pushes an item onto the top of this stack.

```

C++ Node type and ListType [problem 6]

```

struct Node {
    int data;
    Node * next;
    Node() { data = 0; next = NULL; }
    Node(int d) { data = d; next = NULL; }
    Node(int d, Node * n) { data = d; next = n; }
};

typedef Node * ListType;

```