

Course Number: VGP331
Course Title: Network Programming

Assignment #4: Object Serialization

Date Assigned: Week 6

Due Date: Week 7

Description:

Your task is to add two helper classes to your Network library for handling data serialization. Specifically you will need to add the following:

- StreamWriter
- StreamReader

These classes will be responsible for writing and reading data to and from the provided MemoryStream class. A test program is also provided for checking your implementation.

StreamWriter

The purpose for this class is write data to the memory buffer. This class may grow the memory stream as necessary. You can use the following declaration:

```
class StreamWriter
{
public:
    StreamWriter(MemoryStream& memoryStream);
    ~StreamWriter();

    // You need to implement various Write() methods here for different data types

private:
    MemoryStream& mMemoryStream;
};
```

StreamReader

The purpose for this class is read data from a memory buffer. This class should not modify the buffer data in anymore (you are allow to advance to mHead member however). You can use the following declaration:

```
class StreamReader
{
public:
    StreamReader(MemoryStream& memoryStream);
    ~StreamReader();

    // You need to implement various Read() methods here for different data types

private:
    MemoryStream& mMemoryStream;
};
```