# **Programming Assignment**

BLM6110 – Parallel and Distributed Computing Due: May 15, 2018

#### **Question 1:**

Construct a very long String.

Encode this String using AES256Cipher encryption program. Whole encrypted string should be in a single byte array. Encryption should take at least 100ms. You can make the String as long as possible.

Construct a 256 bits long key randomly as discussed in the class.

#### **Question 2:**

Perform the same String encryption with multiple cores. Use the same string as in the first question.

Measure the running time with multiple cores. Implement two types of parallel algorithms:

- 1. by using Java threads
- 2. by using Parallel Java library

### **Submission:**

Email your program code before the class to Ahmet Elbir at <a href="mailto:aelbir@gmail.com">aelbir@gmail.com</a>.

## **Honor Code:**

Please do your own programming. Never receive/give program codes from/to your friends.