**Project 2 Report**

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# **Project Description**

The goal of this project is to introduce the students to the algorithm development through string processing. String processing is one of the most common applications of algorithm and has wide range of applications. There are many applications of string processing but here is a brief list, search indexing, text documents, RegEx operations, Unicode, HTTP protocol, terminal, etc. Project 2’s technical objective was to count certain characters in a string that were determined by the following character set “KNIGHTS” (case insensitive). The students were first tasked to write a program using MIP’s assembly to accomplish the previously mention objective. Afterwards, the students were tasked to reduce energy consumption and dynamic instruction count (execution time) of their program.

# **2.0 Program Design**

# **3.0 Symbol Table**

# **4.0 Learning Coverage**

# **5.0 Prototype in C-Language**

# **6.0 Test Plan**

# **7.0 Test Results**

# **8.0 References**