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Project 2: Milestone

2 December 2016

For the semester project I began to develop a Text to Binary converter. This program involves encoding binary data in a sequence of characters and using ASCII codes to translate and represent the numeric and alphabetic characters. ASCII will also verify that each character is defined by eight bytes. The UML diagram consist of the main methods and classes that I will use when coding the program. It includes the value of the binary text, the StringBuffer method and inputs needed for the program. So far working on my project I came up with the necessary classes I will need to use when programming the converter. My code needs to consist of a Scanner that will scan the user input, a printed function to notify the user to enter a word and a variety of string related classes and methods. The string class provides a method for dealing with character values. The String byte[] bytes constructor constructs a new string by decoding the specified array of bytes using the default character set. After doing some research I found that I would need to use the getByte and stringBuffer or builder to convert english text to binary numbers. The getByte method encodes the string into a sequence of bytes using the character set resulting in a new byte array.

This can be used to represent character strings and implement them to eight bytes of zero and ones. Stringbuffer supports mutable strings; because string objects are immutable they can be shared. String Buffer and builder are similar in the sense that the classes store object data that can be modified. Regardless of being slower in performance compared to stringBuilder I decided to use StringBuffer because of its multiple thread use and it being safer than StringBuilder. The append method is used when programming with the stringBuffer method and is used when the addition operator is used on a string object. Some of the code functions I intend to use are if, else and elseif which would be used to save information on the English alphabet and its binary supplement and return the correct value. My next step will be using a for loop that consist of if, else statements to compute the math logic to convert the string to binary numbers. In the end, when the program is complete, it will ask the user to input a word or string of characters and when entered the program will display the corresponding binary numeric code for the characters. To prevent errors the user may not enter binary code as a string, however the user is able to use special characters and keys.