

COMP 2401 -- Assignment #1 Grading Scheme

Fall 2014

Encode function: 45%

- 6 marks: Branches based on counter mod 3
 - 2 marks: separate code for remainder zero
 - 2 marks: separate code for remainder one
 - 2 marks: separate code for remainder two
 - 12 marks: code for remainder zero
 - 4 marks: examines every **other** bit, starting at bit **0**
 - 4 marks: retrieves correct bits from source and key bytes
 - 2 marks: sets correct bit to zero in resulting byte
 - 2 marks: sets correct bit to one in resulting byte
 - 12 marks: code for remainder one
 - 4 marks: examines every **other** bit, starting at bit **1**
 - 4 marks: retrieves correct bits from source and key bytes
 - 2 marks: sets correct bit to zero in resulting byte
 - 2 marks: sets correct bit to one in resulting byte
 - 12 marks: code for remainder two
 - 4 marks: examines **every** bit, starting at bit 0
 - 4 marks: retrieves correct bits from source and key bytes
 - 2 marks: sets correct bit to zero in resulting byte
 - 2 marks: sets correct bit to one in resulting byte
 - 3 marks: returns resulting byte
- Deduction:** half of corresponding marks ($8/2 = 4$ marks each branch) if provided get/set/clear bit functions are not used

Encryption: 27%

- 5 marks: prompts user for plaintext
- 5 marks: prompts user for key
- 5 marks: examines every byte of plaintext
- 5 marks: encodes plaintext byte, using key and counter
- 2 marks: increments counter
- 5 marks: prints out encrypted message

Decryption: 28%

- 6 marks: prompts user for ciphertext (loop for numeric values)
- 5 marks: prompts user for key
- 5 marks: examines every byte of ciphertext
- 5 marks: encodes ciphertext byte, using key and counter
- 2 marks: increments counter
- 5 marks: prints out decrypted message

Deductions and Bonus marks

- Up to 50 marks deduction for any of the following:
 - the code does not compile using gcc in the VM provided for the course
 - the code cannot be tested because the program doesn't run
- Up to 20 marks deduction for any of the following:
 - the readme file is missing
 - global variables are used
- Up to 10 marks deduction for missing comments or other bad style (non-standard indentation, etc.)
- Up to 5 bonus marks for fun and creative additional features