**Assignment Chapter 8 Randall Fishwick**

**CO SCI 124**

**Python Programming**

# A program that reads the file’s contents and determines the following:

# - The number of uppercase letters in the file

# - The number of lowercase letters in the file

# - The number of digits in the file

# - The number of whitespace characters in the file

def main():

# Local variables

uppercase\_cnt = 0

lowercase\_cnt = 0

digit\_cnt = 0

whitespace\_cnt = 0

try:

# Open file text.txt for reading.

infile = open('text.txt', 'r')

# Read data into a list.

# Each list item is one sentence.

sentences = infile.readlines()

print("\nRead text.txt file and analyze characters:")

# Loop through lines in file

for line in sentences:

# Loop through characters in lines

for ch in line:

if ch.isupper():

uppercase\_cnt += 1

elif ch.islower():

lowercase\_cnt += 1

elif ch.isdigit():

digit\_cnt += 1

elif ch.isspace():

whitespace\_cnt += 1

print("Upper Case Characters: ", uppercase\_cnt)

print("Lower Case Characters: ", lowercase\_cnt)

print("Numerical Characters: ", digit\_cnt)

print("Whitespace Characters: ", whitespace\_cnt)

# Close the file.

infile.close()

# Handle any errors that may occur.

except IOError:

print('There was an error while opening the file.')

except:

print('An error occurred.')

# Call the main function.

main()

**Program Run Results:**

Read text.txt file and analyze characters:

Upper Case Characters: 29

Lower Case Characters: 1228

Numerical Characters: 30

Whitespace Characters: 259

Process finished with exit code 0