**CS-504 Structured Programming / Scripting**

**Activity 7 – Files**

1. Write a program to read the first 7 characters from the given file (argument of the read function).
2. Write a program to read the first line from the given file. (use the readline method, which reads the first line of the file)
3. Write a program to display the number of lines in the given file. (use the len() and the readlines() method. The readlines() method gives back the lines of the file as members of a list)
4. Create a list from a specific string (the names of the senders) in the given file.
   1. Use the open function to create the file handle variable.
   2. Use the readlines() method to create a list of lines.
   3. Use a loop to look at each line in the list of lines you just created.
   4. Create a conditional to check whether the line starts with ‘From:’
   5. Use the split() method to create a list of individual words.
   6. Use slicing to slice out the names.
   7. Print the names.
5. Search and replace function in a file. Russell Brady has a new e-mail address [bradynew@apple.com](mailto:bradynew@apple.com). We need to change the names on the file (brady2 to bradynew) so that communications run smoothly.
   1. Create 2 variables for the old and new email addresses.
   2. Open the file in read mode (default) and use the read() method to read the file and store the value in a variable.
   3. Use the replace() method with 2 arguments (first the old email and second the new email) and store the value in another variable.
   4. Open a new file in write mode this time (creating another file e.g. list.txt)
   5. Write the result of the replace() method in the new file using the write() method.
   6. Use the close() method to avoid deleting the contents of the file by mistake.
   7. Open the new file in read mode (default) this time.
   8. Use the readlines() method to create a list of lines.
   9. Use a loop to look at each line.
   10. Create a condition to look for ‘brady’ in the lines.
   11. Strip the lines of whitespaces using the strip() method.
   12. Print the lines.
6. Python Program to Count Words in Text File (lorem.txt / split)
   1. Open the file with a file handle variable.
   2. Read the whole file with the read() method and put the value in a variable.
   3. Use the split() method to create a list of words and put the value in a variable.
   4. Print the number of the words with the len() function.
7. Find and count the occurrences of a word in mbox1.txt. Get the word from user input. Print the result with an appropriate message.