

Assignment 1

(31st July, 2017)

Part 1:

You need to write a python program for course registration process of an institution, similar to your course registration; where a list of subjects will be present and each student should take a minimum number of subjects (keep in mind that in each semester subjects will be different). You need to store the subjects that have been taken by the students along with their name and roll no in a file. Hints:

- I. Keep the name (e.g. xxx), roll no (e.g. CS1YYYY or EC1YYYY) and current semester (e.g. V) of the students in one list.
- II. Keep the subjects name (e.g. Cloud Computing) and subject's ids (e.g. CS351) in another list.
- III. Allot each student three to four subjects in such a way so that X year student should take only the subjects which have subject id $CSXYY$ or $ECXYY$.
- IV. Create a text file; name it as "*student course information*".
- V. Store the subjects name, subject's ids along with the name, roll no and current semester of the students in that file.

Part 2:

- I. In this assignment, you need to write a python to compute document statistics. Follow the steps below.
 - Create a text file with some random text.
 - Create a python program with functions for reading the file, computing the word count and top 10 words. Use the template below.

```
def readFile(filename):  
    #Implement this
```

```
Def topTenWords(wordCountDict):  
    #Implement this
```

```
Def main():  
    filename= open(smample.txt, r)  
    contents= readFile(filename)  
    wordCountDict= wordCount(contents)  
    topTenWords(wordCountDict)
```

```
if __name__ == '__main__':  
    main()
```

- II. Extend Exercise-1 to compute top 10 keywords in a file. To ignore stop-words (commonly occurring words such as 'an', 'the', 'how', etc.) create a list of stop-words. Ignore stop-words when computing top 10 key words.