BRAC UNIVERSITY
Inspiring Excellence

Department of Computer Science and Engineering

Course Code: CSE 420	Credits: 1.5
Course Name: Compiler Design	Semester: Summer' 20

Lab 03

Introduction

I. Topic Overview:

The lab is designed to introduce the students to the basics concept of a compiler Design. As part of this activity students will be using built in libraries. Basic techniques of coding and required tools will also be shown to students.

II. Lesson Fit:

The lab gives a hand on experience of the knowledge of theory class.

III. Learning Outcome:

After this lab, the students will be able to:

a. Understand and use built-in library function for tokenization.

b. Use ***Regex*** library effectively.

IV. Anticipated Challenges and Possible Solutions

Possible Solutions:

a. Use built in methods of java.

V. Acceptance and Evaluation

If a task is a continuing task and one couldn't finish within time limit, he/she will continue from there in the next Lab, or be given as a home work. He/ she have to submit the code and have to

face a short viva. A deduction of 30% marks is applicable for late submission. The marks distribution is as follows:

Code: 0%

Viva: 100%

VI. Activity Detail

Activity Detail

a. Hour: 1 - 2

Discussion: Learn Regex to Convert Regular Expression.

Problem Task: Task 1 (page 3-4)

b. Hour: 3

Discussion: Code in Regex.

Problem Task: Task 2 (page 4-5)

Assignment 3: Problem Description

In this assignment, you will work on regular expression. For simplicity, we will assume that there is a fixed set of regular expressions. We will not consider out of these. You must use any built-in method or package in your implementation. The following table contains a fixed set of RE that will be used in this assignment.

Description	RE	Valid	Invalid
Zero or more	a(bc)*de	ade abcbcde	abde abcbde
One or more	a(bc)+de	abcde abcbcde	ade abc
Once or not at all	a(bc)?de	ade abcde	abc abcbcde

Character classes	[a-m]*	blackmail imbecile	above below
Negation of character classes	[^aeiou]	b c	a e
Exactly N times	[^aeiou]{6}	rhythm syzygy	rhythms allowed

Lab 3: Activity List

Task 1: Learn Regex by searching in google.

https://www.tutorialspoint.com/java/java_regular_expressions.htm

Input:

2
ab*c*d
a*b(cd)+e?f
3
acccd
abbbbbcccc
bcdcdef

Output:

YES, 1
NO, 0
YES, 2

Input:

3
[a-c]{3}cab+(da)*f
db*a[^def]{2}gh
def[k-p]*p+
5

defkmnpmpp
acbcabbf
pqrstdd
dbaabggh
dbbbbamkgh

Output:

YES, 3
YES, 1
NO, 0
NO, 0
YES, 2