

Theory of Automata

Spring 2024

**Deadline: 14/05/2024
before 15:00**

Assignment-2

This assignment has two parts. First part is focused on finding a pattern and exporting it to another plain text file in some specific format. The second part is focused on finding and replacing all words having some pattern with another pattern. Both parts will make use of regular expressions.

1. Write a program in Java/ C++/ Python language that will read the following link to extract name, phone and e-mail addresses. Your program should make use of regular expressions.

<http://cs.qau.edu.pk/faculty.php>

Your program should save the required information in a plain text file in the following format. The first line should have Name Phone Email followed by a second line having real names, phone and email followed by other such lines. A sample can be seen as follows:

Name	Phone	Email
<u>Dr. Onaiza Maqbool</u>	+92-51-9064 2060	<u>onaiza@qau.edu.pk</u>
<u>Dr. Khalid Saleem</u>	+92-51-9064 2050	ksaleem@qau.edu.pk
.....
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2. Consider a separate word document file named as “schedule.pdf”. Write a program in Java/ C++/ Python to find times in AM and PM formats and replace it with 24-hour time format. For example, 03:00 PM should be replaced by 15:00. Your program should then rewrite “schedule.pdf” and name it as “new-schedule.pdf”. Your program should make use of regular expression.
3. Write a report (1 to 2 pages) to explain your work in best possible and professional way.

Note: Submit your assignment in TOA-S24-Assignment-2 folder on fs.

This assignment is a group assignment. You can submit this assignment in a group of two. Compress your files and name your compressed file as Name_TOA_Assignment-2. Plagiarism in any form is not acceptable. Try to be honest to yourself to learn maximum from the assignment. Cheating will be penalized.