Section I: Intro & RegEx Apollo, Jack, Morel, Robert

Adapted from Autumn 2020, 2021

Agenda

- Announcements
- Getting to know each other
- Regular Expressions (Review + Worksheet)
- Partner Finding

Announcements

- Due Tuesday 4/5: Project partner info
 - Check Ed discussion board if you need a partner!
- Due Thursday 4/7: HW1 (Regular Exps)

		March		
Monday	Tuesday	Wednesday	Thursday Here	Friday
14:30-15:20 Lecture 28 CSE2 G10 Course introduction slides	29	14:30-15:20 Lecture 30 CSE2 G10 Intro. to parsing; regexps and scanning (Read ch. 1, 2.1-2.4) slides 17:00-18:00 OH (Apollo) CSE2 153 and Zoom	Section 31 Introductions, logistics, regular expressions slides, worksheet, (sample solution) 15:30-16:30 OH (Jack) CSE2 151 and Zoom 20:00-21:00 OH (Morel)	14:30-15:20 Lecture 01 CSE2 G10 <i>Regexps (cont.)</i>
slides		(Read ch. 1, 2.1-2.4) slides 17:00-18:00 OH (Apollo) CSE2 153 and Zoom	slides, worksheet, (sample solution) 15:30-16:30 OH (Jack) CSE2 151 and Zoom 20:00-21:00 OH (Morel) Zoom	

April								
Monday	Tuesday	Wednesday	Thursday	Friday				

Section AA - TA Intro

- Robert Burris (<u>rlburris@cs.washington.edu</u>)
- Junior Computer Science Student
- Interests: Compilers, Distributed Systems, Operating Systems
- Went to California to go bikepacking

Section AA - TA Intro

- Morel Fotsing (<u>morelt98@cs.washington.edu</u>)
- Senior Computer Engineering Student
- Interests: Compilers, Machine Learning, Natural Language Processing
- Played Video Games and moved this Spring Break

Section AB - TA Intro

- Apollo Zhu (they/any)
- Junior in Combined BS/MS, starting MS this summer
- Interest in iOS development and the Swift[™] Programming Language
- I got my wisdom teeth removed during Spring break

var let	people = [name = "Al	"Dave", ex"	"Brian"	, "Alex	
if l	et index =	find(p	eople, n	ame) {	
5 12	delegate?.	didFind	PersonWi	thName(name
} et	se { println("U	nable t	o find \	(name)	in t
}					

Section AB - TA Intro

- Jack Zhang
- 5th year master student, graduating in June
- Interests are programming languages/verification
- What I did during spring break: Elden Ring



Icebreakers

- State your:
 - Name (Pronoun)
 - Year
 - What you're studying (major / minor / field(s) of interest / research project)
 - What you did during spring break

RegEx Worksheets!

Answers

Problem 1i

1) Describe the meaning of each of the following regular expressions in English and give two different strings it can produce:

i) (1 | 0)* 0

Problem 1i

1) Describe the meaning of each of the following regular expressions in English and give two different strings it can produce:

i) (1 | 0)* 0Non-empty binary strings ending with 0

Problem 1ii

1) Describe the meaning of each of the following regular expressions in English and give two different strings it can produce:

ii) ([A-Z][a-z]* | [0-9]+)

Problem 1ii

1) Describe the meaning of each of the following regular expressions in English and give two different strings it can produce:

ii) ([A-Z][a-z]* | [0-9]+)Sequence of lower case letters with first letter upper cased or sequence of base 10 digits

Problem 1iii

1) Describe the meaning of each of the following regular expressions in English and give two different strings it can produce:

iii) (ε | 4?0+1* X 3+)

Problem 1iii

1) Describe the meaning of each of the following regular expressions in English and give two different strings it can produce:

iii) (ε | 4?0+1* X 3+)
Two strings that can be produced: 401 X 333 or empty string

Problem 2i

2) Write a regular expression for each of the following specifications:

i) All strings consisting of 0's and 1's (binary digits) with an even number of 0s

Problem 2i

2) Write a regular expression for each of the following specifications:

i) All strings consisting of 0's and 1's (binary digits) with an even number of 0s 1* (0 1* 0 1*)*

Problem 2ii

2) Write a regular expression for each of the following specifications:

ii) camelCased variable name in Java, where the alphabet is upper and lower-cased letters without any numbers or underscores

Problem 2ii

2) Write a regular expression for each of the following specifications:

ii) camelCased variable name in Java, where the alphabet is upper and lower-cased letters without any numbers or underscores
 [a-z]+([A-Z][a-z]*)*

Problem 2iii

2) Write a regular expression for each of the following specifications:

iii) Non-empty binary strings where each 1 directly follows a 0 (challenge: only use symbols in table up until *)

Problem 2iii

2) Write a regular expression for each of the following specifications:

iii) Non-empty binary strings where each 1 directly follows a 0 (challenge: only use symbols in table up until *)

Challenge 1: (0 | 01) (0 | 01)* - Challenge 2 (no or): 0 (0* (0 1))* 0* Normal: (0+1?)+

No, this omits "01"; I actually don't see a solution, tho there is if we change problem to allow empty strings.

Still Need a Partner?

Stay to potentially find someone in this section to work with on the compiler project Discuss your preferences, e.g.

- In person/remote collaboration
- Morning/afternoon/evening
- Pair programming, joint planning + solo, or other collaboration styles