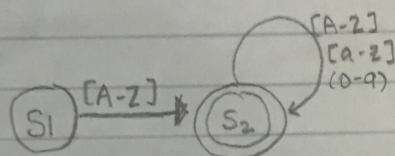


Lab 1 : Regexes , FSAS, Functional and OOP Paradigms

Part I

- 1) All Alphabetic strings beginning with an upper-case letter.

$$[A-Z] ([A-Z] + [a-z] + [0-9])^*$$



A ✓

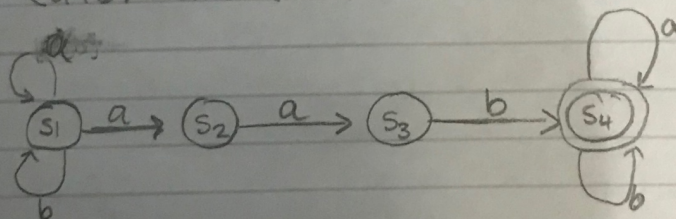
AAa ✓

A0Aa ✓

A55aA ✓

- 2) All string of a's and b's in which the string "aab" occurs atleast once.

$$(a+b)^* aab (a+b)^*$$



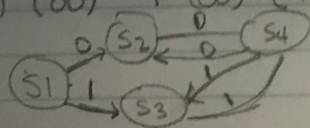
abaabab

abab aabab

abaababab

- 3) All string of 0's and 1's in which are even number of 0's and 1's

$$(11)^* (00)^* + (00)^* (11)^*$$



1100 00 11 ✓

00 00 11 ✓

1100 11 ✓

00 00 x ?

11 11 x ?

4) All binary numbers with odd number of 1's.

01 111 1111 1101 10011 11100

$(0)^* (11)^* (0)^* 1 (0)^*$

