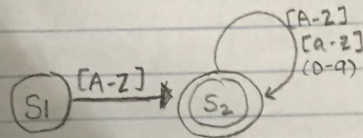


Lab 1 : Regexes, FSAS, Functional and OOP Paradigms

Part I

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

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



A ✓

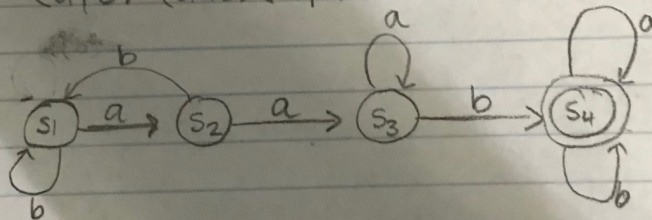
AAa ✓

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

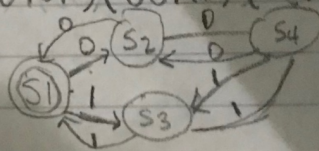
abab aabab

abaababab

aaababaa ✓

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

$$(00|11)^* ((01|10)(00|11)^* (01|10))^*$$



1100 00 11 ✓

00 00 11 ✓

1100 11 ✓

00 00 11 11 ✓

11 11 00 ✓

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

01 111 1111 1101 10011 11100

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

