Regular Expression (RegXe)
Asal Training - Assignment 1

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Using the "re" module in python, I applied 10 RegXe patterns on a testing text file. The patterns were different. Some of them match strings of alphabets, numbers, others on both etc..

The program aims to practice more on RegXe syntax, use 're' built-in functions and to calculate time needed for matching. You can find both python code and the testing file at this repo: https://github.com/AseelArafeh/searchEngine
Following table contains the result I got for each pattern:

Pattern	Their matches	Runtime (sec)
Email accounts: [a-zA-Z0-9]+[\._]?[a-zA-Z0-9]*[@]\w+[.]\w+[.]?\w+	'arafehaseel@gmail.com', '161049@ppu.edu.ps', 'A.Arafeh@asaltech.com', 'aseel@gmail.com', 'aseel_arafeh@safedeny.com', 'aseel_@whatever.com'	0.000892160000000003
Dates: ((3[0-1]|2[0-9]|1[1-9]|0?[1-9])\s?(/|:|-)\s?(1[0-2]|0?[1-9])\s?(/|:|-)\s?[0-9]{4})	('11 / 11 / 2020', '11-11-2020', '01-1-2020', '1:01:2020' '1/05/2020', '01/03/0000', '19/5/1999', '3/3/1998', '5/5/1234')	0.0007270389999999988
Phones No: (([+]?(97(0|2)|0))?(-|:|\s)*?\d{2}(-|:|\s)*?\d{3}(-|:|\s)*?\d{4})	+970-59-811 0843 +970-59 000 0843 059811084 598110843	0.000930986000000189

Quoted Strings: (\"[^\"]*\")	"aseel'", '"arafeh"', '"and i love \nprogramming"', '""', '"i am proud of you"'	0.00021504000000049928
Float Numbers: [+-]?[0-9]*[.][0-9]+	+123.456 .456 -1.1	0.00032469299999959844
Some Files Extension: .*[.](cpp|doc|py|jpg|gif|pdf)	cpp, doc, pdf, jpg	0.0004364800000002944
IPv6 Addresses: ((([0-9a-fA-F]{4}:){3}[0-9a-fA-F]{4})	0000:8a2e:0370:7334	0.0004373329999998177
String consist of only vowels: \b[aeiuo]+\b	Nope	0.00018346599999929936
Multiples of Five: ([0-9]*(0|5))	[('1610'), ('2020'), ('2020'), ('0'), ('2020'), ('0'), ('2020'), ('05'), ('2020'), ('0'), ('0'), ('0000'), ('5'), ('15'), ('2000'), ('5'), ('5'), ('12345'), ('5'), ('10'), ('1000'), ('10'), ('970'), ('970'), ('970'), ('5'), ('0'), ('970'), ('5'), ('000'), ('0'), ('0598110'), ('598110'), ('1003200'), ('45'), ('45'), ('0000'), ('0370'), ('18759880'), ('145875')]	0.00032896000000004477
Words begins and end with 'a': a\w*?a	ara', 'asa', 'aseel_a', 'ara', 'aha', 'aa', 'agina', 'arma', 'anta', 'anka', 'arma	0.00017749399999988924