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# Информатика

Отчёт по лабораторной работе по регулярным выражениям(5 вариант)

**Работу**

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# 1. Текст задания

Реализуйте программный продукт на языке Python, используя регулярные выражения по варианту, представленному в таблице:

## 1. (Задание на 60 баллов)

Дан текст. Необходимо найти в нём любой фрагмент, где сначала идёт слово «олень», затем не более 5 слов, и после этого идёт слово «заяц». Для простоты будем считать словом любую последовательность букв, цифр и знаков «\_».

## 2. (Задание на 80 баллов)

Написать регулярное выражение, которое бы проверяла корректность email и в качестве одной из групп был почтовый сервер.

## 3. (Задание на 100 баллов)

Используя регулярные выражения, выделите все предложения из вашего текста, соответствующие критерию по вашему варианту:

Вариант	Ссылка на текст	Текст
5	<a href="https://drive.google.com/file/d/1j2p-EAwainLQ7dbOf2CFAXDTjQ9O7tNl/view?usp=sharing">https://drive.google.com/file/d/1j2p-EAwainLQ7dbOf2CFAXDTjQ9O7tNl/view?usp=sharing</a>	Гамлет
Вариант	Задание	
5	Все предложения, в которых ровно 6 слов	

# 2. Ход работы

## 2.1. Задание 1

```
1  import re
2
3  input = open("LabIn.txt", "r", encoding="utf-8")
4  text = input.readlines()
5  input.close()
6
7  ans = "Такого фрагмента не обнаружено"
8
9  for t in text:
10     match = re.search(r"\волень?(\\W+\\w+){0,5}\\W+заяц?\\b", t)
11     if match:
12         ans = match.group(0)
13
14  output = open("LabOut.txt", "w", encoding="utf-8")
15
16  output.write(ans)
17
18  output.close()
```

## 2.2. Тесты

1) Ввод: Да он олень, а не заяц!

Вывод: олень, а не заяц

2) Ввод: олень заяц киборг каша псж волшебство заяц

Вывод: олень заяц киборг каша псж волшебство заяц

3) Ввод: олень киборг выборг олень каша псж волшебство заяц ромашка василёк заяц!!

Вывод: олень каша псж волшебство заяц

4) Ввод: олень киборг выборг олень, каша псж 3878237525????!!! /////!!!волшебство ffawf  
!!!!---- заяц ромашка василёк заяц

Вывод: олень, каша псж 3878237525????!!! /////!!!волшебство ffawf !!!!---- заяц

## 2.3. Задание 2

```
1 import re
2
3 input = open("LabIn.txt", "r", encoding="utf-8")
4 text = input.readline()
5 input.close()
6 ans = "email введен некорректно"
7
8 match = re.match(r"([-\\w\\.]+)@([\\w+\\.\\w+)", text)
9
10 if match:
11     ans = "email введен корректно"
12
13 output = open("LabOut.txt", "w", encoding="utf-8")
14 output.write(ans)
15 output.close()
```

## 2.4. Тесты

1) Ввод: zubah--in.dIm090909\_\_\_555@mail.ru

Вывод: email введен корректно

2) Ввод: dddiiim""a@mail.ru

Вывод: email введен некорректно

3) Ввод: diiiiim@--mail.ru

Вывод: email введен некорректно

## 2.5. Задание 3

```
1 import re
2
3 input = open("Hamlet.txt", "r", encoding="utf-8")
4 text = input.read()
5 input.close()
6
7 strings =
8     ↪ re.findall(r"([.?!\s*])(([^?.!\w']*[\w]+)([^-?.!\w']+[\w']+){5}[.?!])",
9     ↪ text)
10
11 output = open("HamletOut.txt", "w", encoding="utf-8")
12 for str in strings:
13     output.write(str[1])
14     output.write("\n")
15 output.close()
```

## 2.6. Результат

```
1 Looks it not like the King?
2 By heaven I charge thee speak!
3 Is it not like the King?
4 Who is't that can inform me?
5 At least, the whisper goes so.
6 Do, if it will not stand.
7 You told us of some suit.
8 That it should come to this!
9 Nay, not so much, not two.
10 A truant disposition, good my lord.
11 I know you are no truant.
12 My lord, the King your father.
13 For God's love let me hear!
14 These hands are not more like.
15 Did you not speak to it?
16 My lord, from head to foot.
17 Then saw you not his face?
18 And fix'd his eyes upon you?
19 I would I had been there.
20 It would have much amaz'd you.
21 Your loves, as mine to you.
22 Till then sit still, my soul.
23 Virtue itself scopes not calumnious strokes.
24 My blessing season this in thee!
25 Ay, fashion you may call it.
26 I think it lacks of twelve.
27 What does this mean, my lord?
28 But do not go with it!
29 Why, what should be the fear?
30 You shall not go, my lord.
31 To what issue wail this come?
32 methinks I scent the morning air.
33 O all you host of heaven!
34 O villain, villain, smiling, damned villain!
35 Not I, my lord, by heaven!
36 In faith,
37     My lord, not I.
```

38 We have sworn, my lord, already.  
 39 The time is out of joint.  
 40 My lord, I did intend it.  
 41 Marry, well said, very well said.  
 42 My lord, that would dishonour him.  
 43 And let him ply his music.  
 44 I will go seek the King.  
 45 Come, go we to the King.  
 46 That do I long to hear.  
 47 Give first admittance to th' ambassadors.  
 48 Mad let us grant him then.  
 49 Came this from Hamlet to her?  
 50 What do you think of me?  
 51 How may we try it further?  
 52 Enter Hamlet, reading on a book.  
 53 How does my good Lord Hamlet?  
 54 Do you know me, my lord?  
 55 [aside] How say you by that?  
 56 He said I was a fishmonger.  
 57 - What do you  
 58 read, my lord?  
 59 What is the matter, my lord?  
 60 [to Polonius] God save you, sir!  
 61 Good lads, how do ye both?  
 62 Nor the soles of her shoe?  
 63 In the secret parts of Fortune?  
 64 But your news is not true.  
 65 We think not so, my lord.  
 66 To me it is a prison.  
 67 What should we say, my lord?  
 68 [aside to Guildenstern] What say you?  
 69 My lord, we were sent for.  
 70 in  
 71 action how like an angel!  
 72 Do the boys carry it away?  
 73 Gentlemen, you are welcome to Elsinore.  
 74 What treasure had he, my lord?  
 75 You are welcome, masters; welcome, all.  
 76 - What, my young lady and mistress?  
 77 One speech in't  
 78 I chiefly lov'd.  
 79 Dost thou hear me, old friend?  
 80 Ay, so, God b' wi' ye!  
 81 Why, what an ass am I!  
 82 I pray you, now receive them.  
 83 Go thy ways to a nunnery.  
 84 O, help him, you sweet heavens!  
 85 Go to, I'll no more on't!  
 86 Here, sweet lord, at your service.  
 87 Why should the poor be flatter'd?  
 88 They are coming to the play.  
 89 She, seeing  
 90 him asleep, leaves him.  
 91 The dead body is  
 92 carried away.  
 93 We shall know by this fellow.  
 94 You are naught, you are naught!  
 95 If she should break it now!  
 96 Sleep rock thy brain,  
 97 [He] sleeps.

98 Madam, how like you this play?  
 99 O, but she'll keep her word.  
 100 What do you call the play?  
 101 So you must take your husbands.  
 102 Pours the poison in his ears.  
 103 Exeunt all but Hamlet and Horatio.  
 104 Upon the talk of the poisoning?  
 105 I did very well note him.  
 106 Is in his retirement, marvellous distemper'd.  
 107 No, my lord; rather with choler.  
 108 I do not well understand that.  
 109 It is as easy as lying.  
 110 Look you, these are the stops.  
 111 Methinks it is like a weasel.  
 112 It is back'd like a weasel.  
 113 Look you lay home to him.  
 114 Pray you be round with him.  
 115 No, by the rood, not so!  
 116 Come, come, and sit you down.  
 117 O me, what hast thou done?  
 118 Ay, lady, it was my word.  
 119 Thou wretched, rash, intruding fool, farewell!  
 120 O, speak to me no more!  
 121 Enter the Ghost in his nightgown.  
 122 A king of shreds and patches!  
 123 How is it with you, lady?  
 124 Look you how pale he glares!  
 125 To whom do you speak this?  
 126 This man shall set me packing.  
 127 Then] Exit Hamlet, tugging in  
 128 Polonius.  
 129 He weeps for what is done.  
 130 I pray you haste in this.  
 131 I understand you not, my lord.  
 132 How now O What hath befall'n?  
 133 What dost thou mean by this?  
 134 He will stay till you come.  
 135 Enter Hamlet, Rosencrantz, [Guildenstern,] and others.  
 136 Good sir, whose powers are these?  
 137 How purpos'd, sir, I pray you?  
 138 The nephew to old Norway, Fortinbras.  
 139 Examples gross as earth exhort me.  
 140 Enter Horatio, Queen, and a Gentleman.  
 141 I will not speak with her.  
 142 Her mood will needs be pitied.  
 143 How long hath she been thus?  
 144 I hope all will be well.  
 145 I pray you give me leave.  
 146 My will, not all the world!  
 147 O heat, dry up my brains!  
 148 Dear maid, kind sister, sweet Ophelia!  
 149 And will he not come again?  
 150 Do you see this, O God?  
 151 I pray you go with me.  
 152 Break not your sleeps for that.  
 153 Are all the rest come back?  
 154 Will you be rul'd by me?  
 155 What part is that, my lord?  
 156 What out of this, my lord?  
 157 - But stay, what noise,

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158                                     Enter Queen.
159 Nay, but hear you, Goodman Delver!
160 Will you ha' the truth an't?
161 How dost thou understand the Scripture?
162 Ay, tell me that, and unyoke.
163 Enter Hamlet and Horatio afar off.
164 Not a jot more, my lord.
165 Is not parchment made of sheepskins?
166 I
167     will speak to this fellow.
168 Who is to be buried in't?
169 Faith, e'en with losing his wits.
170 A whoreson, mad fellow's it was.
171 Prithee, Horatio,
172     tell me one thing.
173 Must there no more be done?
174 This is I,
175     Hamlet the Dane.
176 What wilt thou do for her?
177 For love of God, forbear him!
178 Dost thou come here to whine?
179 You do remember all the circumstance?
180 So Guildenstern and Rosencrantz go to't.
181 Why, what a king is this!
182 He hath much land, and fertile.
183 [aside] His purse is empty already.
184 The carriages, sir, are the hangers.
185 Shall I redeliver you e'en so?
186 I shall win at the odds.
187 Give them the foils, young Osric.
188 These foils have all a length?
189 A hit, a very palpable hit.
190 Come, let me wipe thy face.
191 My lord, I'll hit him now.
192 Look to the Queen there, ho!
193 She sounds to see them bleed.
194 The King, the King's to blame.
195 Exchange forgiveness with me, noble Hamlet.
196 Heaven make thee free of it!
197 [March afar off, and shot within.
198     Why does the drum come hither?
199 What is it you will see?
200 Where should We have our thanks?
201 All this can I
202     Truly deliver.

```

### 3. Вывод

В результате выполнения данной лабораторной работы я научился работать с регулярными выражениями и применять их, используя Python. Кроме того, я разобрался с такими понятиями как квантификатор, шаблон, жадность в регулярных выражениях и т.д.