

Programming Workshop 5

Module 9

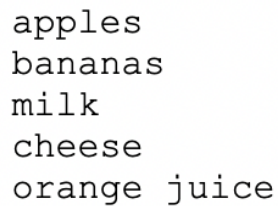
1. Trace the output.

```
try:
    num1 = 4
    num2 = 0
    answer = num1 / num2

except:
    print("Cannot divide by zero.")

else:
    print(num1, "/", num2, "=", format(answer, '.2f'))
```

Given the following file *grocery.txt*, trace the output of the program below.



```
apples
bananas
milk
cheese
orange juice
```

```
pointer = open("grocery.txt", "r")
data = pointer.read()
items = data.split("\n")

if "Milk" in items:
    print("This item is in your groceries list.")

else:
    print("This item is NOT in your groceries list.")
```

2. True or False.

Statement	True / False
<pre>try: x = float('abc123') print('The conversion is complete.') except: print('Something went wrong.') print('The end.')</pre> <p>This program will output Something went wrong.</p>	
<pre>try: x = float('123') print('The conversion is complete.') except: print('Something went wrong.') print('The end.')</pre> <p>This program will output : The conversion is complete. The end.</p>	
<pre>values = [2] * 5 print(values)</pre> <p>This program will output [10]</p>	
<p>Lists in Python are immutable.</p>	
<p>If a file already exists and we open the file in "w" mode, it will erase any data that was already written in the file.</p>	
<p>In a try / except / else statement, the else block will always execute regardless if there is an error in the try block.</p>	

3. Reading CSV Files

Assume you are given the following file called *excel_gradedata.csv* (available on Text Files website). It contains a list of students and 3 test scores for each student.

The contents of *excel_gradedata.csv* looks like this:

```
Manes,Arnoldo,37,35,93
MacCorley,Garnette,67,63,68
Stelfax,Eldredge,93,60,51
Dillicate,Fee,34,93,50
Antonin,Cammy,61,84,78
Ziemsens,Barb,93,84,33
Pourveer,Shalna,88,60,38
Carletti,Mitchel,83,57,95
Cromar,Jordana,79,96,46
Lathey,Cati,95,79,100
```

Write a Python program that opens it up and prints out the average score for each student that is represented in the file.

Sample output:

```
Arnoldo's average: 55.00
Garnette's average: 66.00
Eldredge's average: 68.00
Fee's average: 59.00
Cammy's average: 74.33
Barb's average: 70.00
Shalna's average: 62.00
Mitchel's average: 78.33
Jordana's average: 73.67
Cati's average: 91.33
```


4. World Series

Assume you are given a file called *worldSeries.txt* (available on Text Files website). This data file contains all World Series winning teams up until a few years ago.

Here is a snippet of what it contains:

```
Boston Americans  
New York Giants  
Chicago White Sox  
Chicago Cubs  
Chicago Cubs  
Pittsburgh Pirates  
Philadelphia Athletics  
Philadelphia Athletics  
Boston Red Sox  
Philadelphia Athletics  
Boston Braves  
Boston Red Sox  
Boston Red Sox  
Chicago White Sox  
Boston Red Sox
```

Write a program that reads in this data and finds the team that won the most games.

5. Magic Ball

Write a program that simulates a Magic 8 Ball, which is a fortune-telling toy that displays a random response to a yes or no question. For this program, use a file called *8_ball_responses.txt*. The file contains 12 responses, such as “I don’t think so”, “Yes, of course!”, “I’m not sure”, and so forth. The program should read the responses from the file and convert it into a list. It should prompt the user to ask a question, then display one of the responses, randomly selected from the list. The program should repeat until the user enters the word “end”.

Contents of *8_ball_responses.txt*:

```
Yes, of course!
Without a doubt, yes.
You can count on it.
For sure!
Ask me later.
I'm not sure.
I can't tell you right now.
I'll tell you after my nap.
No way!
I don't think so.
Without a doubt, no.
The answer is clearly NO.
```

Sample output (note your answers might be different):

```
Enter your question. Will I be rich?
I'll tell you after my nap.
Enter your question. Will I pass this class?
For sure!
Enter your question. Can I make all my dreams come true?
The answer is clearly NO.
Enter your question. end
```


ASCII Code Table

0	<NUL>	32	<SPC>	64	@	96	`	128	À	160	+	192	ì	224	÷
1	<SOH>	33	!	65	A	97	a	129	Á	161	°	193	í	225	·
2	<STX>	34	"	66	B	98	b	130	Ç	162	¢	194	î	226	,
3	<ETX>	35	#	67	C	99	c	131	È	163	£	195	√	227	"
4	<EOT>	36	\$	68	D	100	d	132	Ě	164	§	196	f	228	‰
5	<ENQ>	37	%	69	E	101	e	133	Ö	165	•	197	≈	229	Â
6	<ACK>	38	&	70	F	102	f	134	Û	166	¶	198	Δ	230	Ê
7	<BEL>	39	'	71	G	103	g	135	á	167	ß	199	«	231	Á
8	<BS>	40	(	72	H	104	h	136	à	168	®	200	»	232	È
9	<TAB>	41	)	73	I	105	i	137	â	169	©	201	...	233	Ê
10	<LF>	42	*	74	J	106	j	138	ä	170	™	202		234	Í
11	<VT>	43	+	75	K	107	k	139	å	171	'	203	À	235	Î
12	<FF>	44	,	76	L	108	l	140	â	172	"	204	Ã	236	Ï
13	<CR>	45	-	77	M	109	m	141	ç	173	#	205	Ö	237	Ì
14	<SO>	46	.	78	N	110	n	142	é	174	Æ	206	Œ	238	Ó
15	<SI>	47	/	79	O	111	o	143	è	175	Ø	207	œ	239	Ô
16	<DLE>	48	0	80	P	112	p	144	ê	176	∞	208	-	240	Ⓜ
17	<DC1>	49	1	81	Q	113	q	145	ë	177	±	209	—	241	Ò
18	<DC2>	50	2	82	R	114	r	146	í	178	≤	210	"	242	Ú
19	<DC3>	51	3	83	S	115	s	147	ì	179	≥	211	"	243	Û
20	<DC4>	52	4	84	T	116	t	148	î	180	¥	212	`	244	Ü
21	<NAK>	53	5	85	U	117	u	149	ï	181	μ	213	'	245	ı
22	<SYN>	54	6	86	V	118	v	150	ñ	182	ð	214	÷	246	ˆ
23	<ETB>	55	7	87	W	119	w	151	ó	183	Σ	215	◊	247	˜
24	<CAN>	56	8	88	X	120	x	152	ò	184	Π	216	ÿ	248	—
25		57	9	89	Y	121	y	153	ô	185	π	217	Ÿ	249	˘
26	<SUB>	58	:	90	Z	122	z	154	ö	186	ƒ	218	/	250	˙
27	<ESC>	59	;	91	[	123	{	155	õ	187	ª	219	€	251	°
28	<FS>	60	<	92	\	124	|	156	ú	188	º	220	<	252	˚
29	<GS>	61	=	93	]	125	}	157	ù	189	Ω	221	>	253	¸
30	<RS>	62	>	94	^	126	~	158	û	190	æ	222	fi	254	ˆ
31	<US>	63	?	95	_	127		159	ü	191	ø	223	fl	255	˘