

Real-World Python

A Hacker's Guide to Solving Problems with Code

by Lee Vaughan

errata updated to print 2

Page	Error	Correction	Print corrected
15	<pre>self.sailor_actual[0] = np.random.choice(self.sa1.shape[1], 1) self.sailor_actual[1] = np.random.choice(self.sa1.shape[0], 1)</pre>	<pre>self.sailor_actual[0] = np.random.choice(self.sa1.shape[1]) self.sailor_actual[1] = np.random.choice(self.sa1.shape[0])</pre>	Print 2
15	Selecting [0] with random.choice() means that rows are used, and the final argument, 1, selects a single element.	Selecting [0] with random.choice() means that rows are used.	Print 2
54	speech = ''.join(p_elems)	speech = ''.join(p_elems) # Use a space to join the paragraph elements.	Print 2
60	Because there are only 7 sentences in the whole speech with 10 or fewer words ...	Because there are only about a dozen sentences in the whole speech with 10 or fewer words ...	Print 2
61	Insertion	After March 2021 install version 3.8.3 (https://pypi.org/project/gensim/3.8.3/).	Print 2
62	speech = ''.join(p_elems)	speech = ''.join(p_elems) # Use a space to join the paragraph elements.	Print 2
62	<pre>print("\nSummary of Make Your Bed speech:") summary = summarize(speech, word_count=225) sentences = sent_tokenize(summary) sents = set(sentences) print(' '.join(sents))</pre>	<pre>print("\nSummary of Make Your Bed speech:") print(summarize(speech, word_count=225))</pre>	Print 2
62	Then, call the gensim summarize() function to summarize the speech in 225 words. This word count will produce about 15 sentences, assuming the average sentence has 15 words.	Then, summarize the speech and print the result in one step by calling the gensim summarize() function within the print() function. Set the word_count argument to 225. In theory, this will produce a summary of 15 sentences, assuming the average sentence contains 15 words.	Print 2
62	Deletion	Ideally, you could summarize the speech and print the summary in one step. <pre>print(summarize(speech, word_count=225))</pre>	Print 2

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63–64	<p>Unfortunately, <code>gensim</code> sometimes duplicates sentences in summaries, and that occurs here:</p> <pre>Summary of Make Your Bed speech: Basic SEAL training is six months of long torturous runs in the soft sand, midnight swims in the cold water off San Diego, obstacle courses, unending calisthenics, days without sleep and always being cold, wet and miserable. Basic SEAL training is six months of long torturous runs in the soft sand, midnight swims in the cold water off San Diego, obstacle courses, unending calisthenics, days without sleep and always being cold, wet and miserable. --snip--</pre> <p>To avoid duplicating text, you first need to break out the sentences in the summary variable using the NLTK <code>sent_tokenize()</code> function. Then make a set from these sentences, which will remove duplicates. Finish by printing the results.</p> <p>Because sets are unordered, the arrangement of the sentences may change if you run the program multiple times.</p> <pre>Summary of Make Your Bed speech: If you can't do the little things right, you will never do the big things right.And, if by chance you have a miserable day, you will come home to a bed that is made – that you made – and a made bed gives you encouragement that tomorrow will be better.If you want to change the world, start off by making your bed.During SEAL training the students are broken down into boat crews. It's just the way life is sometimes.If you want to change the world get over being a sugar cookie and keep moving forward.Every day during training you were challenged with multiple physical events – long runs, long swims, obstacle courses, hours of calisthenics – something designed to test your mettle. Basic SEAL training is six months of long torturous runs in the soft sand, midnight swims in the cold water off San Diego, obstacle courses, unending calisthenics, days without sleep and always being cold, wet and miserable. >>> ===== RESTART: C:\Python372\sequel\wordcloud\bed_summary.py ===== Summary of Make Your Bed speech: It's just the way life is sometimes.If you want to change the world get over being a sugar cookie and keep moving forward.Every day during training you were challenged with multiple physical events – long runs, long swims, obstacle courses, hours of calisthenics – something designed to test your mettle. If you can't do the little things right, you will never do the big things right.And, if by chance you have a miserable day, you will come home to a bed that is made – that you made – and a made bed gives you encouragement that tomorrow will be better.If you want to change the world, start off by making your bed.During SEAL training the students are broken down into boat crews. Basic SEAL training is six months of long torturous runs in the soft sand, midnight swims in the cold water off San Diego, obstacle courses,</pre>	<p>After running the program, you should get the following output:</p> <pre>Summary of Make Your Bed speech: "What starts here changes the world." Tonight there are almost 8,000 students graduating from UT. Basic SEAL training is six months of long torturous runs in the soft sand, midnight swims in the cold water off San Diego, obstacle courses, unending calisthenics, days without sleep and always being cold, wet and miserable. So, here are the 10 lessons I learned from basic SEAL training that hopefully will be of value to you as you move forward in life. Every morning in basic SEAL training, my instructors, who at the time were all Vietnam veterans, would show up in my barracks room and the first thing they would inspect was your bed. If you want to change the world, start off by making your bed. During SEAL training the students are broken down into boat crews. Over a few weeks of difficult training my SEAL class, which started with 150 men, was down to just 35. Every day during training you were challenged with multiple physical events – long runs, long swims, obstacle courses, hours of calisthenics – something designed to test your mettle. So, if you want to change the world, start singing when you're up to your neck in mud. If you want to change the world don't ever, ever ring the bell. Moments away from starting to change the world – for the better.</pre> <p>If you increase the word count parameter to 450, the “make your bed” aspects of the speech are stressed even more (I’ve shortened the output for brevity).</p> <pre>Summary of Make Your Bed speech: The University's slogan is, "What starts here changes the world." I have to admit – I kinda like it. "What starts here changes the world." Tonight there are almost 8,000 students graduating from UT. And while these lessons were learned during my time in the military, I can assure you that it matters not whether you ever served a day in uniform. Basic SEAL training is six months of long torturous runs in the soft sand, midnight swims in the cold water off San Diego, obstacles courses, unending calisthenics, days without sleep and always being cold, wet and miserable. So, here are the 10 lessons I learned from basic SEAL training that hopefully will be of value to you as you move forward in life. Every morning in basic SEAL training, my instructors, who at the time were all Vietnam veterans, would show up in my barracks room and the first thing they would inspect was your bed. Making your bed will also reinforce the fact that little things in life matter. If you want to change the world, start off by making your bed. During SEAL training the students are broken down into boat crews. If you want to change the world, find someone to help you paddle. Over a few weeks of difficult training my SEAL class, which started with 150 men, was down to just 35. --snip--</pre> <p>If you take the time to read the full speech, you’ll probably conclude that <code>gensim</code> produced a fair summary. It extracted many of the key points of the speech, including the reference to making your bed.</p>	Print 2

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	<p>unending calisthenics, days without sleep and always being cold, wet and miserable.</p> <p>If you take the time to read the full speech, you'll probably conclude that gensim produced a fair summary. Although these two results are different, both extracted the key points of the speech, including the reference to making your bed.</p>		
169	interpolation = cv.INTER_AREA)	interpolation=cv.INTER_AREA)	Print 2
179	We'll look at this case in "Experimenting with Transit Photometry" on page 182 .	We'll look at this case in "Experimenting with Transit Photometry" on page 186 .	Print 2