



Lesson 1: Joke Telling Machine

In this lesson, you will use conditionals to create a joke telling machine. The user will tell you what kind of joke they want to hear (a science joke, a programming joke, and an animal joke) and the computer will tell them a joke of that type.

Part 1 – Setting Up Your Jokes

Create a new file and save it as **YourName LastInitial Lesson 1 – Joke Teller.py** in your folder.

Let's start the program by creating variables for our jokes. First, let's write a science joke. If you want, you can come up with your own, but don't spend too much time thinking of one. You'll have time at the end to edit your code.

1	<code>scienceJokeQ = "Why can't you trust an atom?" #joke setup</code>
2	<code>scienceJokeA = "Because they make up everything!" #joke punchline</code>

Our jokes will be the question-answer style of jokes. In our code, the question and punchline will be separated into 2 variables so we can display them at different times.

Let's setup the variables for our other two jokes.

1	<code>scienceJokeQ = "Why can't you trust an atom?" #joke setup</code>
2	<code>scienceJokeA = "Because they make up everything!" #joke punchline</code>
3	
4	<code>programmingJokeQ = "Why did the function not get along with others?"</code>
5	<code>programmingJokeA = "It had too many arguments!"</code>
6	
7	<code>animalJokeQ = "What do you call a bear with no ears?"</code>
8	<code>animalJokeA = "B!"</code>

Part 2 – User Input

Next, let's have our funny computer introduce itself and receive a category from the user. To practice concatenation, we will also type what category the user chose.

7	<code>animalJokeQ = "What do you call a bear with no ears?"</code>
8	<code>animalJokeA = "B!"</code>
9	

10	<code>print("It is I, Sir Jokes-A-Lot, the funniest computer in all the land")</code>
11	<code>print("I know plenty of jokes. Just give me a category and I'll make you laugh.")</code>
12	<code>print("Please type: science, programming, or animal")</code>
13	<code>category = input()</code>
14	<code>print("You chose", category)</code>

Test your code. Pick a category and the computer should tell you what category you chose.

Part 3 – Telling Your Jokes

We want to print the joke that corresponds to the category that the user chose. Our program needs *to make a decision* to tell the correct joke which means we need a conditional.

14	<code>print("You chose", category)</code>
15	<code>if (category == "science"):</code>
16	<code> print(scienceJokeQ)</code>
17	<code> input()</code>
18	<code> print(scienceJokeA)</code>

Here, we check if category is equal to the string “science”. If it does, then we know the user chose science, so we tell them the science joke. We use the input function here only to separate the question and answer part of the joke, that way they’re not printed all at once and the user can guess an answer. We don’t really care what the user types, so we don’t create a variable for to store their response.

Test your code. Choose science as the category and it will tell you the question part of the joke then wait for more input. You can type something or just press enter to have it tell you the answer. Run it again and choose another category. What happens? Why?

Now, let’s expand the conditional to check for our other two categories using elif.

15	<code>if (category == "science"):</code>
16	<code> print(scienceJokeQ)</code>
17	<code> input()</code>
18	<code> print(programmingJokeA)</code>
19	<code>elif(category == "programming"):</code>
20	<code> print(programmingJokeQ)</code>
21	<code> input()</code>
22	<code> print(programmingJokeA)</code>

23	<code>elif(category == "animal"):</code>
24	<code> print(animalJokeQ)</code>
25	<code> input()</code>
26	<code> print(animalJokeA)</code>

Remember that elif must be on the same indentation as the if.

What happens if the user types something besides science, programming, or animal? Right now, nothing happens and the user won't be quite sure as to why. It's a good idea to always account for users not following instructions in your program. Let's add an else at the end to make sure the user always gets some sort of message.

23	<code>elif(category == "animal"):</code>
24	<code> print(animalJokeQ)</code>
25	<code> input()</code>
26	<code> print(animalJokeA)</code>
27	<code>else:</code>
28	<code> print("Cannot recognize", category, "Please only type science, programming or animal")</code>

Run your code and your program should look something like this:

```
It is I, Sir Jokes-A-Lot, the funniest computer in all the land
I know plenty of jokes. What category of joke do you want to hear today
Please type: science, programming, or animal
science
You chose science
Why can't you trust an atom?
why?
Because they make up everything!
```

Part 3 – Adding Your Own Jokes

Come up with your own jokes and try adding more categories. Some ideas are Star Wars jokes, math jokes, sports jokes, or puns. When you add another category, you will need to add another elif to the conditional. Once you're done share your jokes with your friends.