Chatbot using RiveScript

@June 16, 2022

Documentation of Project:

RiveScript is a simple scripting language for giving intelligence to chatbots and other conversational entities.
It's a plain text, line-based scripting language with goals of being simple to learn, quick to type, and easy to read and maintain.

RiveScript was designed to do everything that AIML (Artificial intelligence Markup Language) can do. RiveScript interpreters use different programming Languages such as Java, Javascript, Go, Perl, and Python.

In this tutorial, I plan to do a short demonstration on how RiveScript works using the try online page and its playground. By the end of this video, viewers will be familiar with multiple responses, weights, wildcards, alternates, setting variables or declaring and initializing them, different substitutions, arrays and if conditionals. The main aim is to get the viewers comfortable to create a simple chatbot here and can further implement it on their preferred programming language.

5 minute video

Outline -

1. What is RiveScript? RiveScript interpreters using different programming languages

2. multiple responses + vs -
   (hello|hi)
   [any]
   wildcards → */_/# pattern matching
   {weight=5}

3. variables:

   <set name=<formal>> and <get name> (input)

   !var name = bot (defined)

4. abbreviations substitutions

   personal substitutions

5. if conditionals

   arrays

- Note that if a {weight} tag isn't specified, the trigger assumes a weight of 1. Now, there is a total of 10 weights in these replies: 3 + 2 + 4, and then +1 for the "Hello there, human." response.
  So, "Hey, how are you?" has a 3 in 10 chance of being chosen, "Hello. :)" has a 4 in 10 chance, "Hi there." has a 2 in 10 chance, and finally "Hello there, human." has a 1 in 10 chance of being chosen.

Script -

RiveScript is a simple scripting language used essentially to program a brain for chatbots. It is a plain text, line-based scripting language with goals of being simple, quick, and easy to read and maintain. RiveScript was designed to do everything that AIML (Artificial intelligence Markup Language) can do. RiveScript interpreters use different programming Languages such as Java, Javascript, Go, Perl, and Python.

explain code on rivescript

1. multiple responses + vs -

(hello|hi)

[any]

*wildcards → * and _ and # pattern matching*

{weight=5}

2. variables:

<set name=<formal>> and <get name> (input)

!var name = bot (defined)

3. abbreviations substitutions

personal substitutions

4. if conditionals and arrays

```
! version = 2.0

! var name1 = Chatbot Bob
! sub i'm = i am
! person i = you
! array colors = red yellow purple orange pink blue green

+ hi bot
- Hello Human!

+ (hello|hi)
- Hello human!
- Hello!{weight=5}
- Hi there!
- Hey!{weight=5}
- Hi!{weight=10}

+ do you have [any] (candy|chocolate)
- I do not like sweets, so I do not keep any on me, sorry!

// alphabets only
// + my name is _
// - <set name=<formal>>Nice to meet you, <get name>.

+ (what is my name|who am i)
- You're <get name>, right?

// numbers only
+ my age is #
- <set age=<star>>You seem mature to be <get age>!

// match this trigger for both alphabets and numbers
+ my name is *
- Your name has a number in it?

+ i was born in _
- <star> is a beautiful city!

// Multiple stars
+ i was born in * but i live in *
- Both are beautiful places, but I like <star2> more than <star1>

// multiple wildcards
+ _ told me to say *
- You said <star2> because <star1> told you to?

+ *
- I don't have a reply for that.
- Try asking that a different way.

+ who are you
- I am <bot name1>
```

```
// contractions (i am = i'm)
+ i am studying *
- Oo! I find <star> very intersting!

+ do you think i *
- I don't think you {person}<star>{/person}.

+ am i allowed to drive
* <get age> >=  18 => Yes, you're over the age of 18.
* <get age < 18> => No, you're not allowed.
- I don't know; I don't think I know how old you are.

+ my (favorite|favourite) color is (@colors)
- <star> is my most liked color too.
```

Resources Used -

- https://www.rivescript.com/

- https://www.youtube.com/watch?v=zGe1m_bLOFk&list=PLRqwX-V7Uu6aDUo_ia-Vq2UZZGaxJ9nRo&index=3

- https://www.youtube.com/watch?v=wf8w1BJb9Xc&list=PLRqwX-V7Uu6aDUo_ia-Vq2UZZGaxJ9nRo&index=2

Personal Notes -

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- SNote that if a {weight} tag isn't specified, the trigger assumes a weight of 1. Now, there is a total of 10 weights in these replies: 3 + 2 + 4, and then +1 for the "Hello there, human." response.
  So, "Hey, how are you?" has a 3 in 10 chance of being chosen, "Hello. :)" has a 4 in 10 chance, "Hi there." has a 2 in 10 chance, and finally "Hello there, human." has a 1 in 10 chance of being chosen.