

Using agents storage function

Introduction

In this guide, we want to illustrate how storage functions are called and how to use them. We want to create an agent which gets a value from the storage (starting from 0) every second. Then prints it, and puts the new value back into the storage but increased by 1 unit.

Walk-through

1. First of all, let's create a Python script, and name it by running:touch storage.py
2. .
3. Then, we need to open the script in the text editor of choice and import the necessary classes,Agent
4. andContext
5. , from theuagents
6. library.
7. Let's then create an agent namedalice
8. which logs a message every second using the.on_interval()
9. decorator, indicating the current count. Theon_interval()
10. function takes aContext
11. object as a parameter: theContext
12. object contains astorage
13. attribute, which is used to store and retrieve data between method calls:
14. storage.py
15. from
16. uagents
17. import
18. Agent
19. ,
20. Context
21. alice
22. =
23. Agent
24. (name
25. =
26. "alice"
27. , seed
28. =
29. "alice recovery phrase"
30.)
31. @alice
32. .
33. on_interval
34. (period
35. =
36. 1.0
37.)
38. async
39. def
40. on_interval
41. (
42. ctx
43. :
44. Context):
45. current_count
46. =
47. ctx
48. .
49. storage
50. .
51. get
52. (
53. "count"
54.)
55. or
56. 0

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57. ctx
58. .
59. logger
60. .
61. info
62. (
63. f
64. "My count is:
65. {
66. current_count
67. }
68. "
69. )
70. ctx
71. .
72. storage
73. .
74. set
75. (
76. "count"
77. , current_count
78. +
79. 1
80. )
81. if
82. name
83. ==
84. "main"
85. :
86. alice
87. .
88. run
89. ()
90. Here, theon_interval()
91. function retrieves the current count from the storage attribute using thectx.storage.get()
92. method. It prints thecurrent_count
93. value, and then increments it by1
94. , and stores the updated count back to the storage attribute using thectx.storage.set()
95. method. The current count is then logged using thectx.logger.info()
96. method.
97. Save the script.
```

Run the script

On your terminal, make sure you activated the virtual environment.

Run the script:python storage.py

The output should look as follows:

[alice]: My count is: 1 [alice]: My count is: 2 [alice]: My count is: 3 ...

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