TURING COMPLETE SANDBOX

https://github.com/sunojram/Sunoj-Sandbox.git

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The Turing Complete Sandbox is built in Python 2 and the idea behind this sandbox is to restrict the Process memory, CPU cycle time, Maximum physical memory that can be consumed, the address space that can be allocated in the physical memory and restricting the user to open a file. I am also trying to restrict the unsafe functions that can be called by __builtin__ directory. I have also defined a function that converts special characters into escape sequences.

The sandbox supports all the operations that are inbuilt in a Turing Complete Language like Python and it definitely is a Turing complete sandbox.

The sandbox code is written in such a way that there is a function for restricting memory usage, a function for deleting the __builtin__ functions that are unsafe and then a function for conversion of special characters into character sequences.

The sandbox functions read the document and they try to execute the Fibonacci series in the memory space and complexity of the sandbox.

The resource_limitation() takes care of all the memory and CPU time restriction.

The function_deletion() takes care of preventing potentially unsafe functions in the Builtin directory.

The symbol_conversion() takes care of conversion from special characters to escape sequences.

EXAMPLE PROGRAM:

```
# write fibonacci series up to n
a = 0      # initiation
a = int(a)  # Type Conversion
b = 1   # initiation
b = int(b)
while a < 100:    # while Loop till a less than 100
   print a,        # print function
   a, b = b, a+b   # assigning of new variable value
```