

Documentația Proiectului "K Documentation Generator"

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1 Introduction

1.1 Descriere proiect

Proiectul "K Documentation Generator" reprezinta un tool care preia un fisier .k si genereaza o pagina HTML bazata pe comentariile din interiorul fisierului .k

1.2 Motivul alegerii temei

Am ales acest proiect deoarece pentru versiunile actuale de K, tool-ul de generare a documentatiei nu mai functioneaza

2 Tehnologii utilizate

Proiectul este realizat in limbajul C++ si CSS. O sa folosesc CSS pentru a evita tagurile goale luate de HTML, `< k >< /k >`, `< env >`, etc.

3 Arhitectura Aplicatiei

Se da ca input locatia fisierului K iar acesta creeaza la adresa fisierului K, documentatia HTML

3.1 Input

```
//title: A simple k script

//description: Tuxedo cats always looking dapper drool have a lot of grump in
yourself because you can't forget to be grumpy and not be like king grumpy cat
cats are fats i like to pets them they like to meow back.

//<introduction>
///description: Shove bum in owner's face like camera lens plop down in the middle
where everybody walks yet cough. You are a captive audience while sitting on the
toilet, pet me eat an easter feather as if it were a bird then burp victoriously.
//</introduction>

//<syntax>
///description: Fight an alligator and win intently stare at the same spot soft
kitty warm kitty little ball of furr so ptracy.
module IMP-SYNTAX
  syntax AExp ::= Int // builtin
                | Id // builtin
                | String // builtin
                | "++" Id
                | Id "++"
                > left:
                AExp "*" AExp [left]
                | AExp "/" AExp [left]
                > left:
                AExp "+" AExp [left, strict]
                | AExp "-" AExp [left]
                | "(" AExp ")" [bracket]

  endmodule
//</syntax>

//<definition>
///description: Catty ipsum get my claw stuck in the dog's ear for scratch my
tummy actually i hate you now fight me.
module IMP
  imports IMP-SYNTAX
  syntax KResult ::= Bool | Int | String

  configuration <k> $PGM:Stmt </k>
    <env> .Map </env>
    <store> .Map </store>
    <stack> .List </stack>
    <in stream="stdin"> .List </in>
    <out stream="stdout"> .List </out>

  rule I1:Int <= I2:Int => I1 <=Int I2
  rule I1:Int + I2:Int => I1 +Int I2

  rule S1:Stmt S2:Stmt => S1 ~> S2

  endmodule
//</definition>
```

3.2 Output

A simple k script

Tuxedo cats always looking dapper drool have a lot of grump in yourself because you can't forget to be grumpy and not be like king grumpy cat cats are fats i like to pets them they like to meow back.

Introduction

Shove bum in owner's face like camera lens plop down in the middle where everybody walks yet cough. You are a captive audience while sitting on the toilet, pet me eat an easter feather as if it were a bird then burp victoriously.

Syntax

Fight an alligator and win intently stare at the same spot soft kitty warm kitty little ball of furr so ptracy.

```
module IMP-SYNTAX
  syntax AExp ::= Int // builtin
               | Id // builtin
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               | "++" Id
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  > left:
    AExp "++" AExp [left]
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  > left:
    AExp "+" AExp [left, strict]
  | AExp "-" AExp [left]
  | "(" AExp ")" [bracket]

endmodule
```

Definition

Catty ipsum get my claw stuck in the dog's ear for scratch my tummy actually i hate you now fight me.

```
module IMP
  imports IMP-SYNTAX
  syntax KResult ::= Bool | Int | String
  configuration <k> $PGM:Stmt </k>
               <env> .Map </env>
               <store> .Map </store>
               <stack> .List </stack>
               <in stream="stdin"> .List </in>
               <out stream="stdout"> .List </out>

  rule I1:Int <= I2:Int => I1 <=Int I2
  rule I1:Int + I2:Int => I1 +Int I2
  rule S1:Stmt S2:Stmt => S1 -> S2

endmodule
```

4 Detalii de implementare

- `//title: Titlu`
- `//description: Descriere`
- `< somename > < /somename >` :tot textul din bloc nu e considerat a un atribut, o sa fie considerat ca si cod

In cazul in care se afla unul dintre atribute in interiorul unui bloc, acesta o sa fie luat ca parte a codului.

Parsarea din K in HTML o sa se faca parsand blocurile intr-un arbore.

5 Bibliografie

References

- [1] <https://www.overleaf.com/learn/latex>
- [2] <https://www.google.com/>
- [3] <https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>
- [4] <https://stackoverflow.com/>
- [5] http://www.kframework.org/index.php/K_Tutorial[https : //www.latex – project.org/help/documentation](https://www.latex-project.org/help/documentation)

6 De implement

[6] //color: Culoare la linie

- //newline: Insereaza spatiu
- //h1,2,3,4 : Modifica marimea la caractere in functie de nr h