Final Delivery

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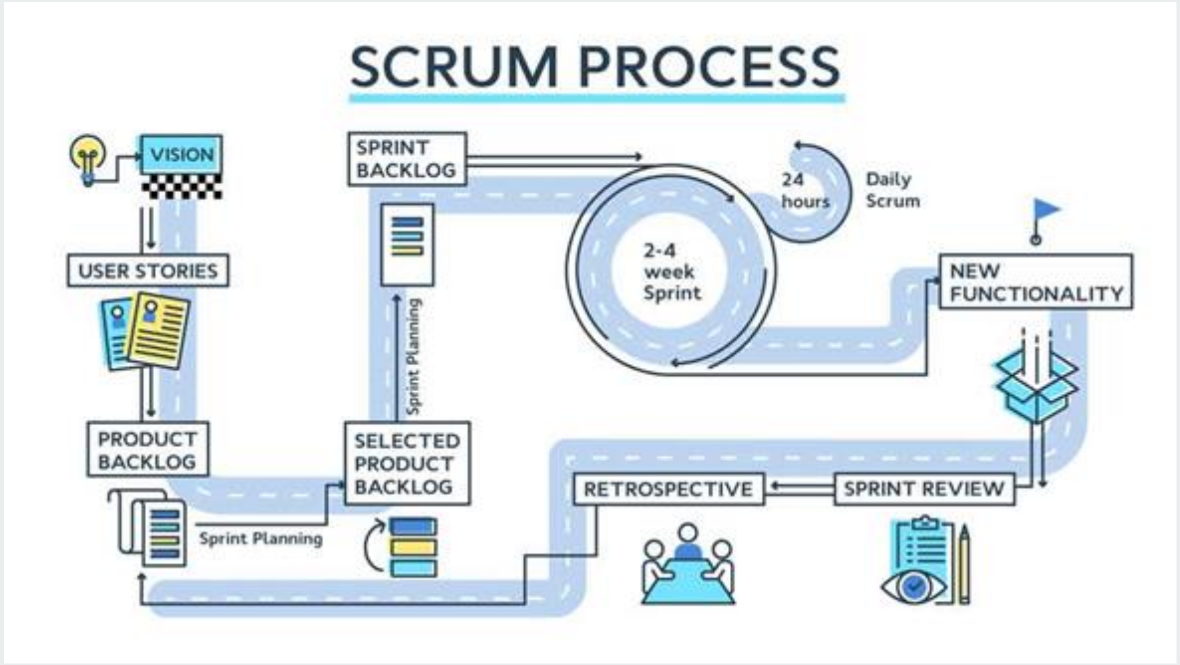
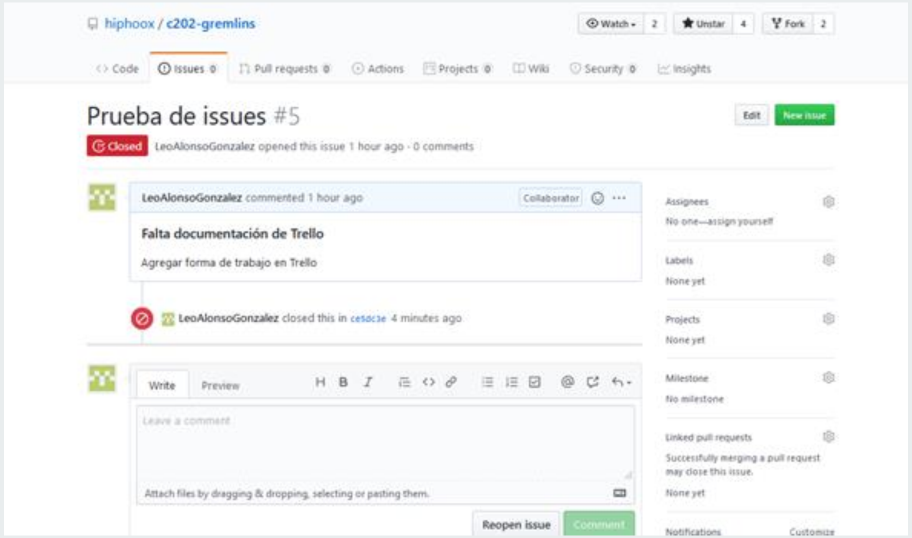
Martínez Matías Joan Eduardo.

Rosales Romero Ricardo.

SCRUM


SCRUM PROCESS
VISION
USER STORIES
PRODUCT BACKLOG
Sprint Planning
SELECTED PRODUCT BACKLOG
Sprint Planning
SPRINT BACKLOG
2-4 week Sprint
24 hours
Daily Scrum
NEW FUNCTIONALITY
SPRINT REVIEW
RETROSPECTIVE

Learnings on github



hiphoox / c202-gremlins

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Code · Issues 0 · Pull requests 0 · Actions · Projects 0 · Wiki · Security 0 · Insights

Prueba de issues #5

Edit · New issue

Closed LeoAlonsoGonzalez opened this issue 1 hour ago · 0 comments

LeoAlonsoGonzalez commented 1 hour ago · Collaborator

Falta documentación de Trello

Agregar forma de trabajo en Trello

LeoAlonsoGonzalez closed this in ce5dc3e 4 minutes ago

Write · Preview

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Reopen issue · Comment

Assignees: No one—assign yourself

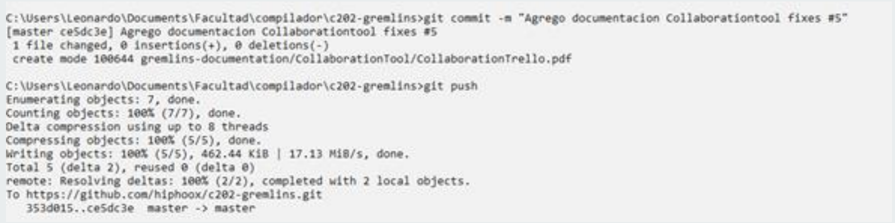
Labels: None yet

Projects: None yet

Milestone: No milestone

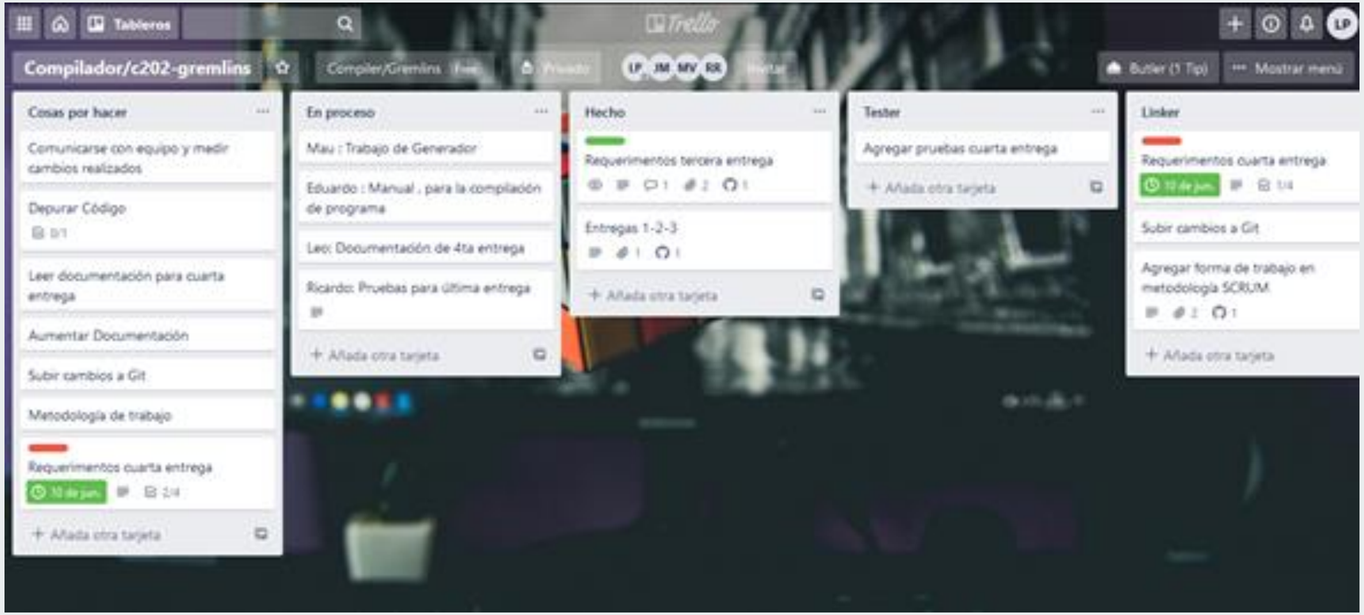
Linked pull requests: Successfully merging a pull request may close this issue. None yet

Notifications · Customize



```
C:\Users\Leonardo\Documents\Facultad\compilador\c202-gremlins>git commit -m "Agrego documentacion Collaborationtool fixes #5"
[master ce5dc3e] Agrego documentacion Collaborationtool fixes #5
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 gremlins-documentation/CollaborationTool/CollaborationTrello.pdf

C:\Users\Leonardo\Documents\Facultad\compilador\c202-gremlins>git push
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 462.44 KiB | 17.13 MiB/s, done.
Total 5 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/hiphoox/c202-gremlins.git
   353d015..ce5dc3e  master -> master
```

Collaboration tools



Cosas por hacer

- Comunicarse con equipo y medir cambios realizados
- Depurar Código 0/1
- Leer documentación para cuarta entrega
- Aumentar Documentación
- Subir cambios a Git
- Metodología de trabajo
- Requerimientos cuarta entrega 10 de jun. 2/4
- + Añada otra tarjeta

En proceso

- Mau : Trabajo de Generador
- Eduardo : Manual , para la compilación de programa
- Leo: Documentación de 4ta entrega
- Ricardo: Pruebas para última entrega
- + Añada otra tarjeta

Hecho

- Requerimientos tercera entrega 1 2 1
- Entregas 1-2-3 1 1
- + Añada otra tarjeta

Tester

- Agregar pruebas cuarta entrega
- + Añada otra tarjeta

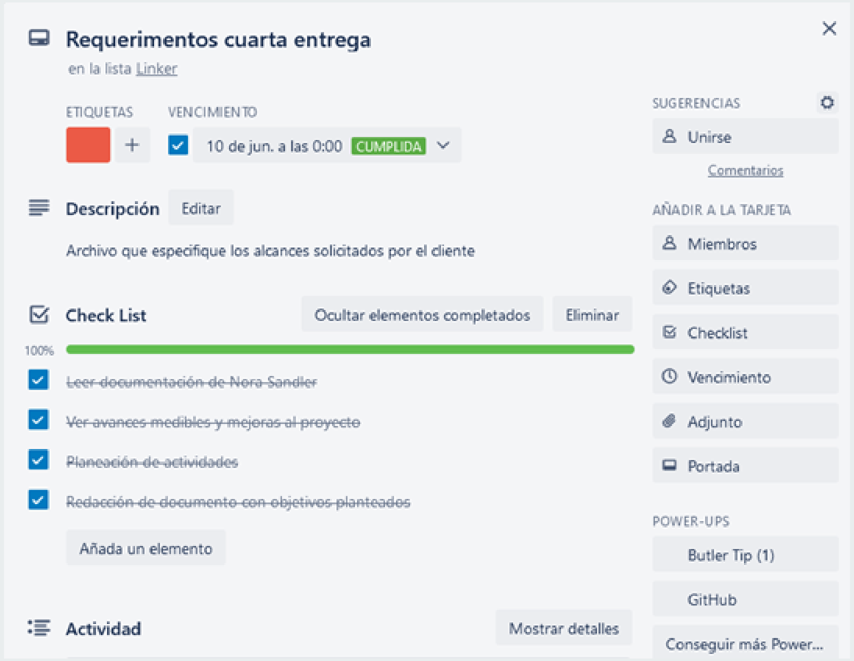
Linker

- Requerimientos cuarta entrega 10 de jun. 1/4
- Subir cambios a Git
- Agregar forma de trabajo en metodología SCRUM 2 1
- + Añada otra tarjeta

Collaboration tools Trello

Collaboration CCompiler Gremlins

https://trello.com/invite/b/aMgzIBO5/36c5c9122b2698930eb0a51f424dd55e/compilador-c202-gremlins



Requerimentos cuarta entrega

en la lista Linker

ETIQUETAS

VENCIMIENTO: ✓ 10 de jun. a las 0:00 CUMPLIDA

Descripción

Archivo que especifique los alcances solicitados por el diente

Check List

100%

- [x] ~~Leer documentación de Nora Sandler~~
- [x] ~~Ver avances medibles y mejoras al proyecto~~
- [x] ~~Planeación de actividades~~
- [x] ~~Redacción de documento con objetivos planteados~~

Actividad

Check list con actividades a realizar

General changes

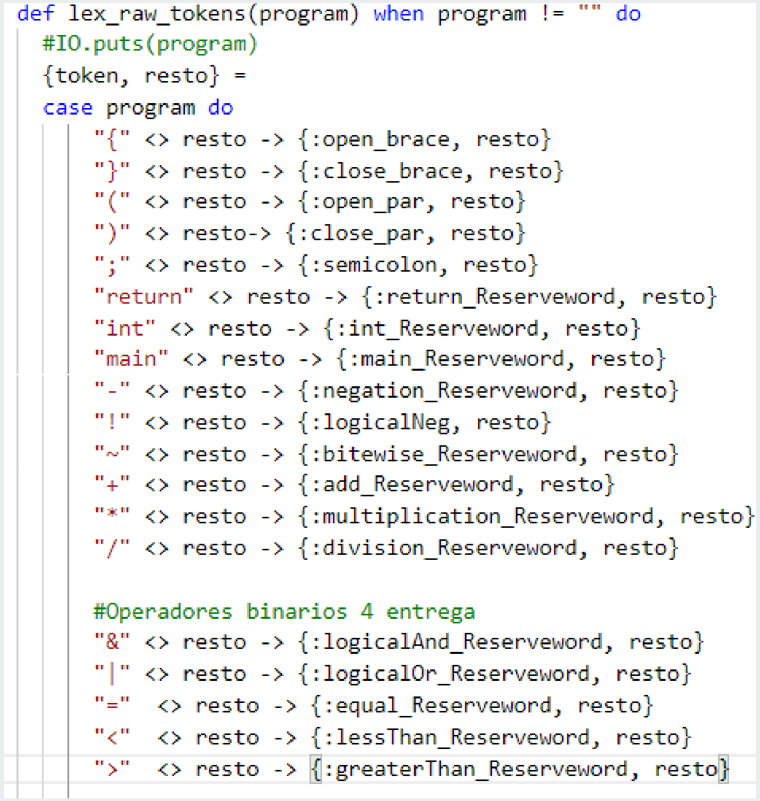
11 binary operators added.

1. Addition +
2. Multiplication *
3. Division /
4. AND &&
5. OR ||
6. Equal ==
7. Not Equal !=
8. Less than <
9. Less than or equal <=
10. Greater than >
11. Greater than or equal >=

Handle associativity and operator precedence

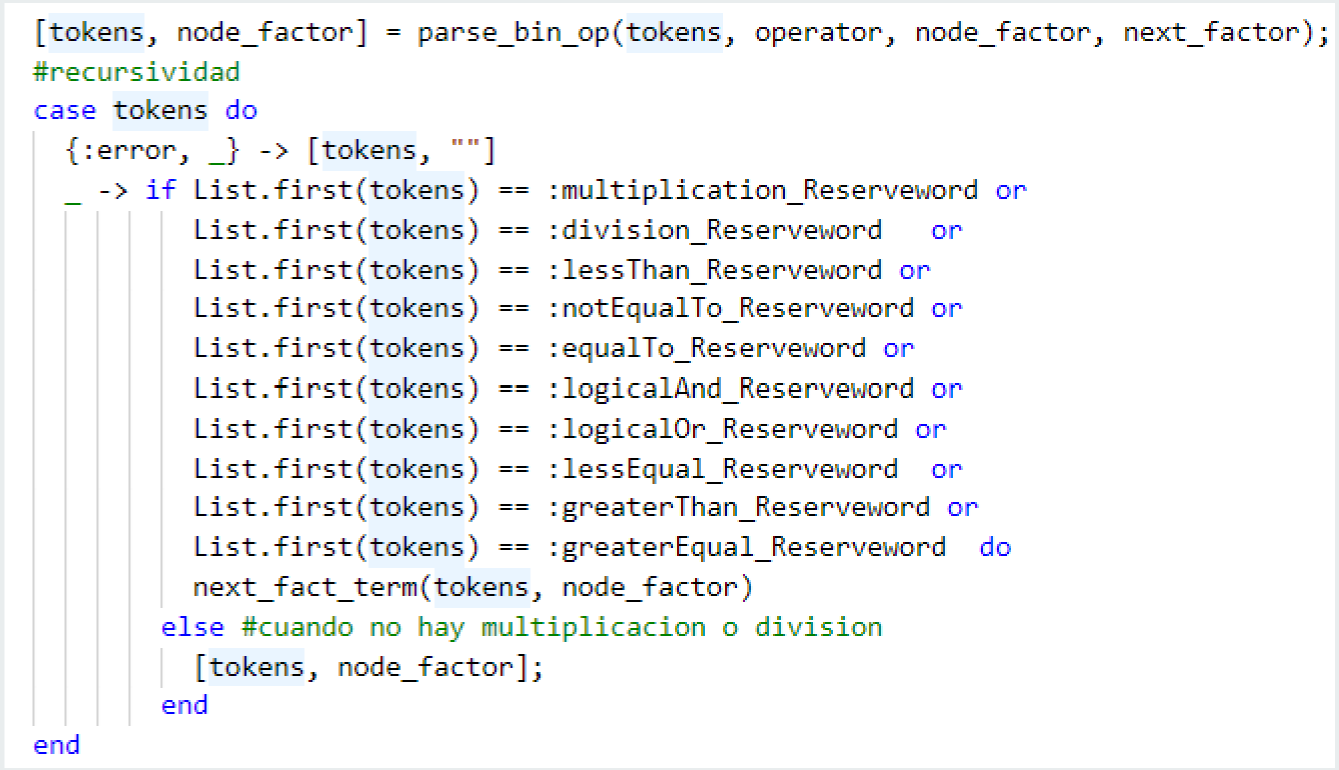
- Updates to functions in parser
- Updates to code generator

Changes in Lexer



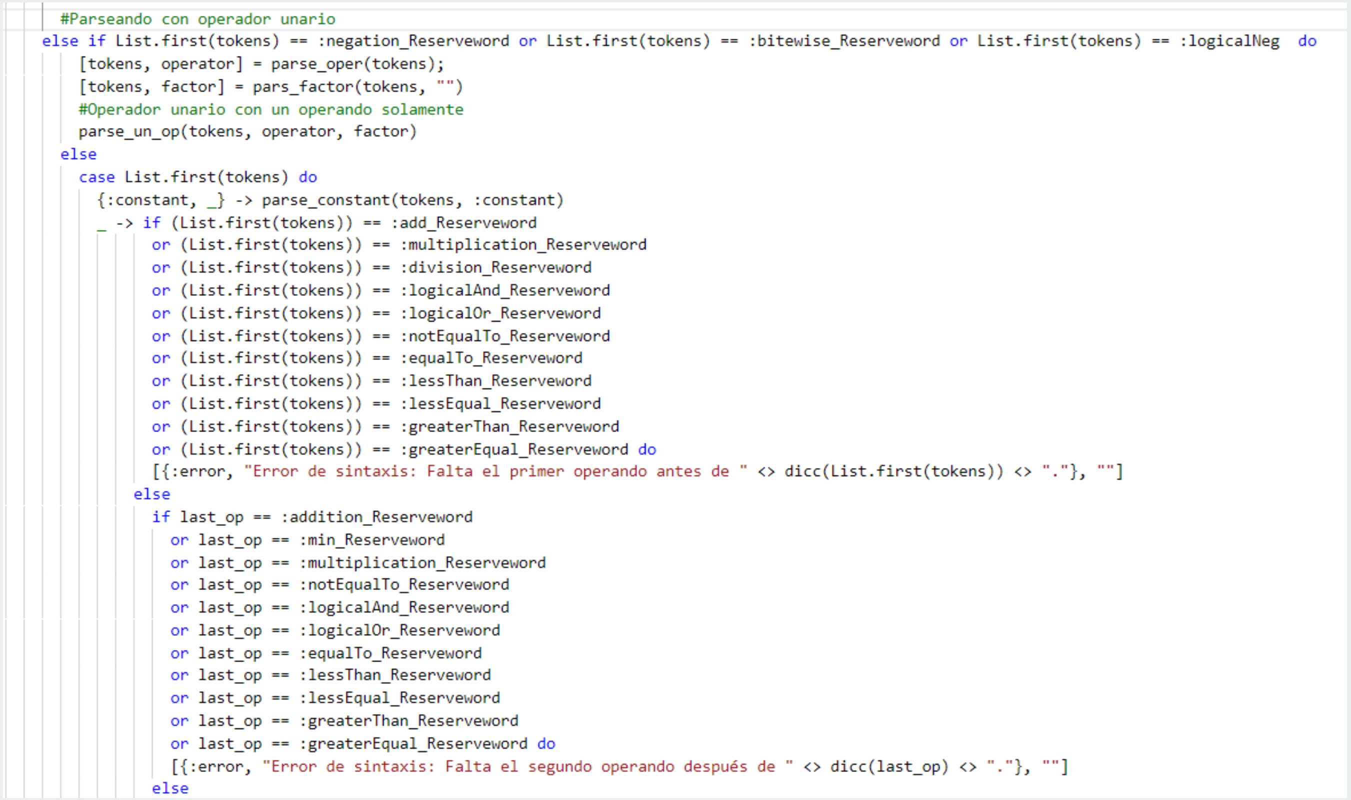
```
def lex_raw_tokens(program) when program != "" do
  #IO.puts(program)
  {token, resto} =
  case program do
      "{" <> resto -> {:open_brace, resto}
      "}" <> resto -> {:close_brace, resto}
      "(" <> resto -> {:open_par, resto}
      ")" <> resto-> {:close_par, resto}
      ";" <> resto -> {:semicolon, resto}
      "return" <> resto -> {:return_Reserveword, resto}
      "int" <> resto -> {:int_Reserveword, resto}
      "main" <> resto -> {:main_Reserveword, resto}
      "-" <> resto -> {:negation_Reserveword, resto}
      "!" <> resto -> {:logicalNeg, resto}
      "~" <> resto -> {:bitewise_Reserveword, resto}
      "+" <> resto -> {:add_Reserveword, resto}
      "*" <> resto -> {:multiplication_Reserveword, resto}
      "/" <> resto -> {:division_Reserveword, resto}

      #Operadores binarios 4 entrega
      "&" <> resto -> {:logicalAnd_Reserveword, resto}
      "|" <> resto -> {:logicalOr_Reserveword, resto}
      "="  <> resto -> {:equal_Reserveword, resto}
      "<"  <> resto -> {:lessThan_Reserveword, resto}
      ">"  <> resto -> {:greaterThan_Reserveword, resto}
```

Changes in Parser



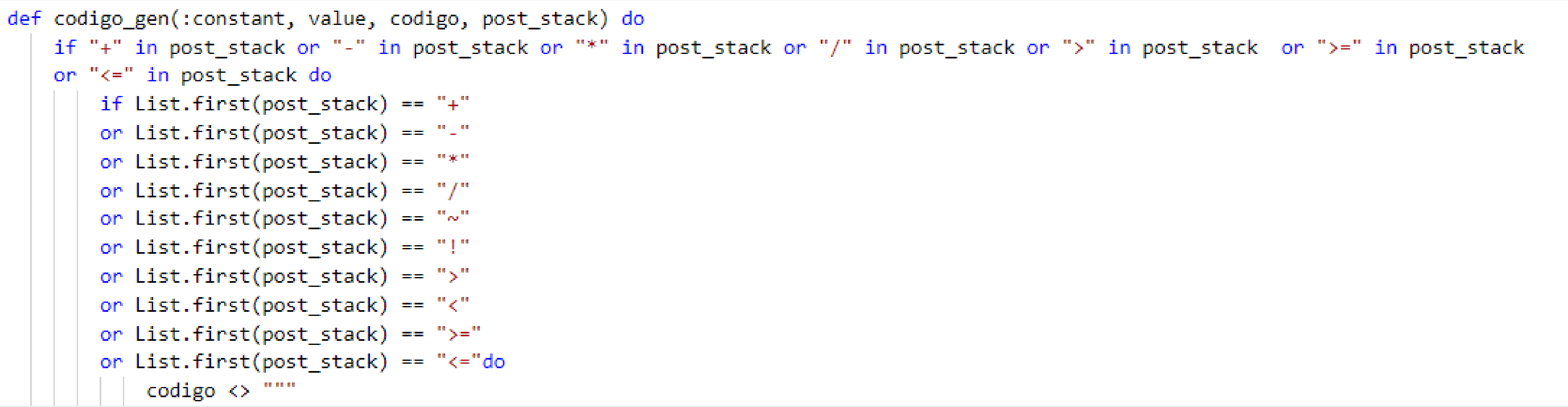
```
[tokens, node_factor] = parse_bin_op(tokens, operator, node_factor, next_factor);
#recursividad
case tokens do
  {:error, _} -> [tokens, ""]
  _ -> if List.first(tokens) == :multiplication_Reserveword or
          List.first(tokens) == :division_Reserveword   or
          List.first(tokens) == :lessThan_Reserveword or
          List.first(tokens) == :notEqualTo_Reserveword or
          List.first(tokens) == :equalTo_Reserveword or
          List.first(tokens) == :logicalAnd_Reserveword or
          List.first(tokens) == :logicalOr_Reserveword or
          List.first(tokens) == :lessEqual_Reserveword  or
          List.first(tokens) == :greaterThan_Reserveword or
          List.first(tokens) == :greaterEqual_Reserveword  do
          next_fact_term(tokens, node_factor)
        else #cuando no hay multiplicacion o division
          [tokens, node_factor];
        end
end
```

Changes in Parser



```
    #Parseando con operador unario
  else if List.first(tokens) == :negation_Reserveword or List.first(tokens) == :bitewise_Reserveword or List.first(tokens) == :logicalNeg  do
      [tokens, operator] = parse_oper(tokens);
      [tokens, factor] = pars_factor(tokens, "")
      #Operador unario con un operando solamente
      parse_un_op(tokens, operator, factor)
    else
      case List.first(tokens) do
        {:constant, _} -> parse_constant(tokens, :constant)
        _ -> if (List.first(tokens)) == :add_Reserveword
              or (List.first(tokens)) == :multiplication_Reserveword
              or (List.first(tokens)) == :division_Reserveword
              or (List.first(tokens)) == :logicalAnd_Reserveword
              or (List.first(tokens)) == :logicalOr_Reserveword
              or (List.first(tokens)) == :notEqualTo_Reserveword
              or (List.first(tokens)) == :equalTo_Reserveword
              or (List.first(tokens)) == :lessThan_Reserveword
              or (List.first(tokens)) == :lessEqual_Reserveword
              or (List.first(tokens)) == :greaterThan_Reserveword
              or (List.first(tokens)) == :greaterEqual_Reserveword do
              [{:error, "Error de sintaxis: Falta el primer operando antes de " <> dicc(List.first(tokens)) <> "."}, ""]
            else
              if last_op == :addition_Reserveword
                or last_op == :min_Reserveword
                or last_op == :multiplication_Reserveword
                or last_op == :notEqualTo_Reserveword
                or last_op == :logicalAnd_Reserveword
                or last_op == :logicalOr_Reserveword
                or last_op == :equalTo_Reserveword
                or last_op == :lessThan_Reserveword
                or last_op == :lessEqual_Reserveword
                or last_op == :greaterThan_Reserveword
                or last_op == :greaterEqual_Reserveword do
                [{:error, "Error de sintaxis: Falta el segundo operando después de " <> dicc(last_op) <> "."}, ""]
              else
```

Handling binary expressions



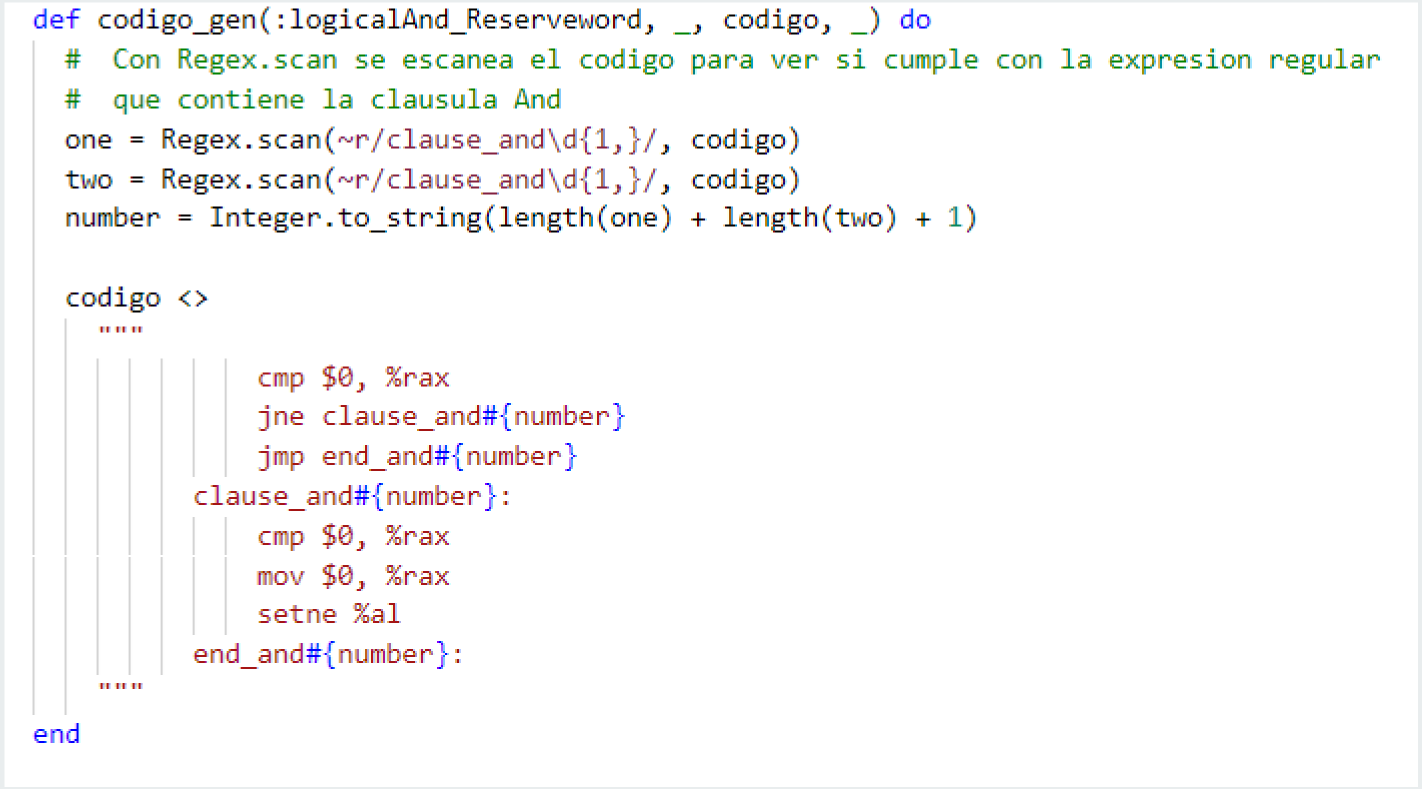
```
def codigo_gen(:constant, value, codigo, post_stack) do
    if "+" in post_stack or "-" in post_stack or "*" in post_stack or "/" in post_stack or ">" in post_stack  or ">=" in post_stack
    or "<=" in post_stack do
        if List.first(post_stack) == "+"
        or List.first(post_stack) == "-"
        or List.first(post_stack) == "*"
        or List.first(post_stack) == "/"
        or List.first(post_stack) == "~"
        or List.first(post_stack) == "!"
        or List.first(post_stack) == ">"
        or List.first(post_stack) == "<"
        or List.first(post_stack) == ">="
        or List.first(post_stack) == "<="do
            codigo <> """
```

Adding binary operators to code generator

```elixir
def codigo_gen(:multiplication_Reserveword, _, codigo, _) do
    codigo <> """
      pop     %rcx
      imul    %ecx, %eax
      push    %rax
    """
end

def codigo_gen(:division_Reserveword, _, codigo, _) do
  codigo <> """
      push    %rax
      pop     %rcx
      pop     %rax
      xor     %edx, %edx
      idivl   %ecx
      push    %rax
  """
end
```

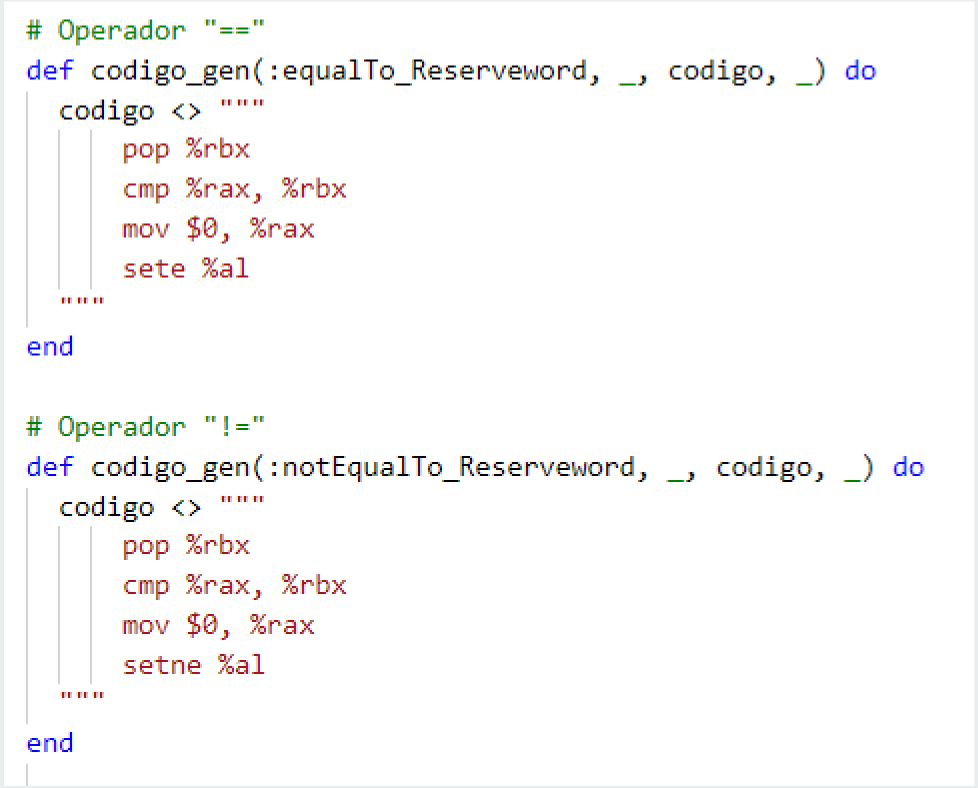
```elixir
def codigo_gen(:min_Reserveword, _, codigo, _) do
    codigo <> """
      pop       %rcx
      sub       %rax, %rcx
      mov       %rcx, %rax
  """
end

def codigo_gen(:add_Reserveword, _, codigo, _) do
    codigo <> """
      pop     %rcx
      addl    %ecx, %eax
      push    %rax
    """
end
```

Changes in Code Generator

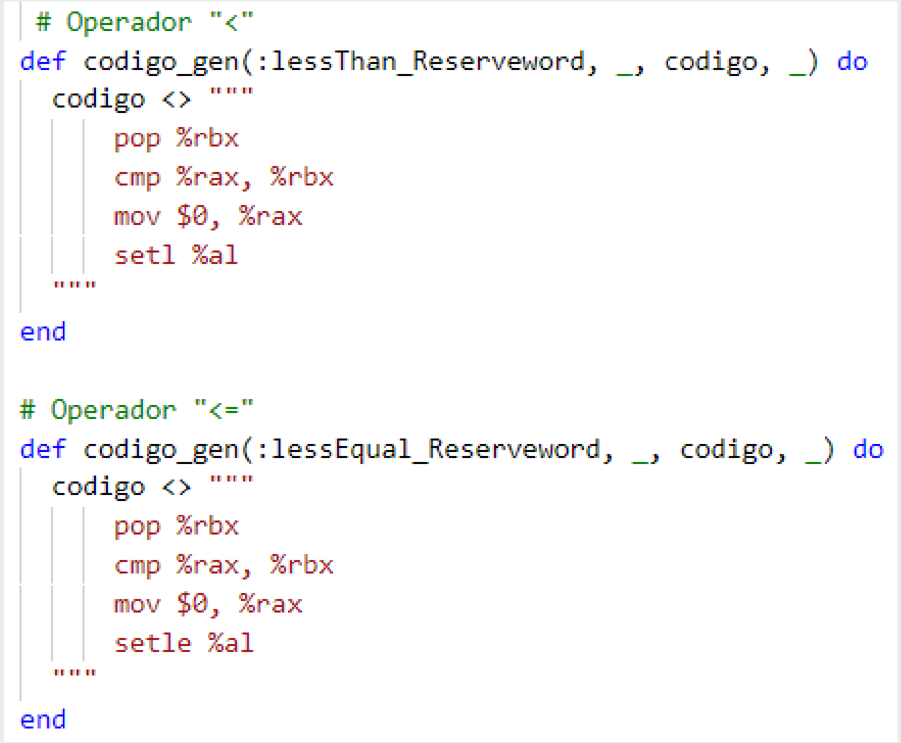


```
def codigo_gen(:logicalAnd_Reserveword, _, codigo, _) do
  #  Con Regex.scan se escanea el codigo para ver si cumple con la expresion regular
  #  que contiene la clausula And
  one = Regex.scan(~r/clause_and\d{1,}/, codigo)
  two = Regex.scan(~r/clause_and\d{1,}/, codigo)
  number = Integer.to_string(length(one) + length(two) + 1)

  codigo <>
    """
              cmp $0, %rax
              jne clause_and#{number}
              jmp end_and#{number}
          clause_and#{number}:
              cmp $0, %rax
              mov $0, %rax
              setne %al
          end_and#{number}:
    """
end
```

Changes in Code Generator

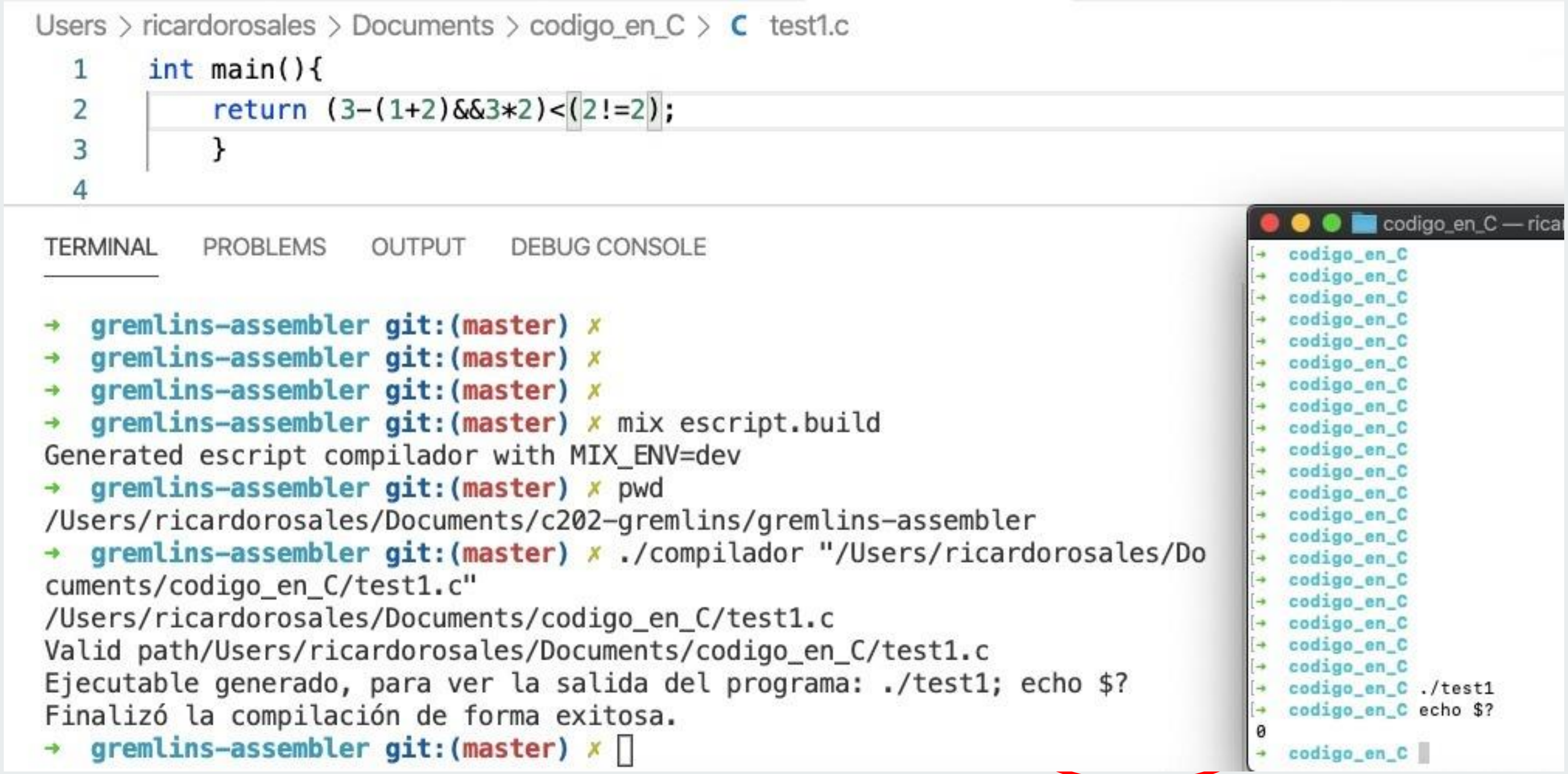


```
# Operador "=="
def codigo_gen(:equalTo_Reserveword, _, codigo, _) do
  codigo <> """
      pop %rbx
      cmp %rax, %rbx
      mov $0, %rax
      sete %al
  """
end

# Operador "!="
def codigo_gen(:notEqualTo_Reserveword, _, codigo, _) do
  codigo <> """
      pop %rbx
      cmp %rax, %rbx
      mov $0, %rax
      setne %al
  """
end
```



```
# Operador "<"
def codigo_gen(:lessThan_Reserveword, _, codigo, _) do
  codigo <> """
      pop %rbx
      cmp %rax, %rbx
      mov $0, %rax
      setl %al
  """
end

# Operador "<="
def codigo_gen(:lessEqual_Reserveword, _, codigo, _) do
  codigo <> """
      pop %rbx
      cmp %rax, %rbx
      mov $0, %rax
      setle %al
  """
end
```

Final test



Users > ricardorosales > Documents > codigo_en_C > C test1.c

```c
int main(){
    return (3-(1+2)&&3*2)<(2!=2);
    }
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE

```
➜  gremlins-assembler git:(master) ✗
➜  gremlins-assembler git:(master) ✗
➜  gremlins-assembler git:(master) ✗
➜  gremlins-assembler git:(master) ✗ mix escript.build
Generated escript compilador with MIX_ENV=dev
➜  gremlins-assembler git:(master) ✗ pwd
/Users/ricardorosales/Documents/c202-gremlins/gremlins-assembler
➜  gremlins-assembler git:(master) ✗ ./compilador "/Users/ricardorosales/Do
cuments/codigo_en_C/test1.c"
/Users/ricardorosales/Documents/codigo_en_C/test1.c
Valid path/Users/ricardorosales/Documents/codigo_en_C/test1.c
Ejecutable generado, para ver la salida del programa: ./test1; echo $?
Finalizó la compilación de forma exitosa.
➜  gremlins-assembler git:(master) ✗ 
```

codigo_en_C — rica

```
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[➜  codigo_en_C
[➜  codigo_en_C
[➜  codigo_en_C
[➜  codigo_en_C
[➜  codigo_en_C ./test1
[➜  codigo_en_C echo $?
0
➜  codigo_en_C 
```
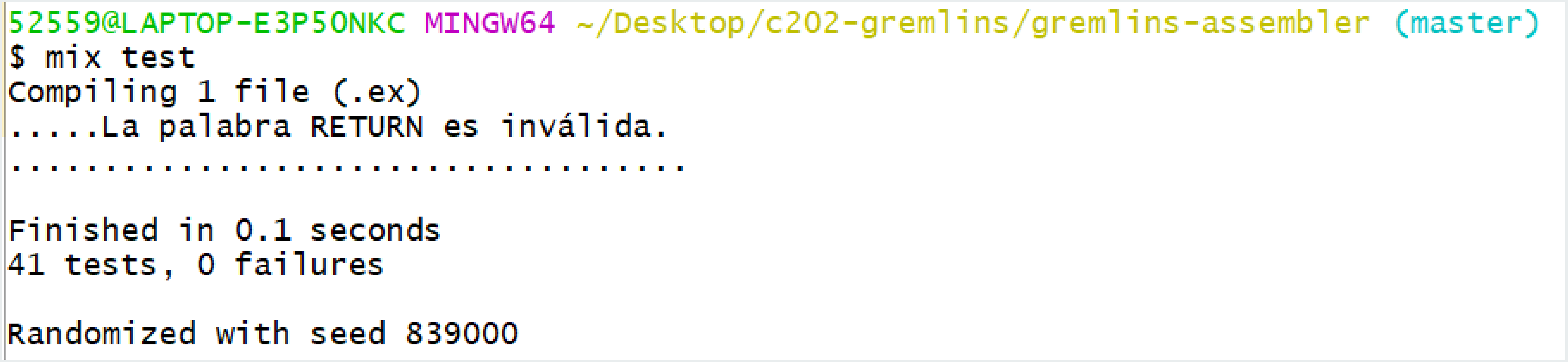

Some tests



```
52559@LAPTOP-E3P5ONKC MINGW64 ~/Desktop/c202-gremlins/gremlins-assembler (master)
$ mix test
Compiling 1 file (.ex)
.....La palabra RETURN es inválida.
....................................

Finished in 0.1 seconds
41 tests, 0 failures

Randomized with seed 839000
```

Learned Lessons