Diego Araque A01026037
Daniel Sanchez A01781575

Define a module in Elixir

=== BNF ===

<defmodule> ::= defmodule <module_names> do \n \t <body> end

<module_names> ::= <module_name> | <module_name> . <module_names>

<module_name> ::= <upper_case_letter> |<upper_case_letter><chars>

<body> ::= <function> | <function> <body>

<upper_case_letter> ::= Q | A | Z | W | S | X | E | D | C | R | F | V | T | G | B | Y | H | N | U | J | M | I | K | O | L | P

<lower_case_letter> ::= q | a | z | w | s | x | e | d | c | r | f | v | t | g | b | y | h | n | u | j | m | i | k | o | l | p

<digit> ::= 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

<chars> ::= <lower_case_letter> | <digit> | <upper_case_letter> | _ | <lower_case_letter><chars> | <upper_case_letter><chars> | <digit><chars> | _ <chars>

=== EBNF ===

DEFMODULE ::= defmodule MODULE_NAMES do '\n' '\t' BODY end

MODULE_NAMES ::= MODULE_NAME [{'.' MODULE_NAME}]

MODULE_NAME ::= UPPER_CASE_LETTER [CHARS]

BODY ::= FUNCTION | FUNCTION BODY

UPPER_CASE_LETTER ::= 'Q' | 'A' | 'Z' | 'W' | 'S' | 'X' | 'E' | 'D' | 'C' | 'R' | 'F' | 'V' | 'T' | 'G' | 'B' | 'Y' | 'H' | 'N' | 'U' | 'J' | 'M' | 'I' | 'K' | 'O' | 'L' | 'P'

LOWER_CASE_LETTER ::= 'q' | 'a' | 'z' | 'w' | 's' | 'x' | 'e' | 'd' | 'c' | 'r' | 'f' | 'v' | 't' | 'g' | 'b' | 'y' | 'h' | 'n' | 'u' | 'j' | 'm' | 'i' | 'k' | 'o' | 'l' | 'p'

DIGIT ::= '0' | '1' | '2' | '3' | '4' | '5' | '6' | '7' | '8' | '9'

CHARS ::= {UPPER_CASE_LETTER | LOWER_CASE_LETTER | DIGIT | '_'}

Define a function in Elixir

=== BNF ===

<function> ::= <define_function> <func_name>(<parameters>) do \n \t <code> end \n | <define_function> <func_name>(<parameters>), do: <code> \n

<define_function> ::= def | dfp

<func_name> ::= <lower_case_letter><chars>

<parameters> ::=<var> | <var>, <parameters>

<upper_case_letter> ::= Q | A | Z | W | S | X | E | D | C | R | F | V | T | G | B | Y | H | N | U | J | M | I | K | O | L | P

<lower_case_letter> ::= q | a | z | w | s | x | e | d | c | r | f | v | t | g | b | y | h | n | u | j | m | i | k | o | l | p

<digit> ::= 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

<var> ::= <lower_case_letter> | <lower_case_letter> <chars>

<chars> ::= <lower_case_letter> | <digit> | <upper_case_letter> | _ | <lower_case_letter><chars> | <upper_case_letter><chars> | <digit><chars> | _ <chars>

=== EBNF ===

FUNCTION ::= DEFINE_FUNCTION FUNC_NAME '('PARAMETERS')' do '\n' '\t\ CODE end '\n' | DEFINE_FUCNTION FUNC_NAME '('PARAMETERS')' ',' do ':' CODE '\n'

DEFINE_FUNCTION ::= def | defp

FUNC_NAME ::= LOWER_CASE_LETTER [CHARS]

CHARS ::= {UPPER_CASE_LETTER | LOWER_CASE_LETTER | DIGIT | '_'}

PARAMETERS ::= (VALUE | VAR) [({',' VAR })]

UPPER_CASE_LETTER ::= 'Q' | 'A' | 'Z' | 'W' | 'S' | 'X' | 'E' | 'D' | 'C' | 'R' | 'F' | 'V' | 'T' | 'G' | 'B' | 'Y' | 'H' | 'N' | 'U' | 'J' | 'M' | 'I' | 'K' | 'O' | 'L' | 'P'

LOWER_CASE_LETTER ::= 'q' | 'a' | 'z' | 'w' | 's' | 'x' | 'e' | 'd' | 'c' | 'r' | 'f' | 'v' | 't' | 'g' | 'b' | 'y' | 'h' | 'n' | 'u' | 'j' | 'm' | 'i' | 'k' | 'o' | 'l' | 'p'

DIGIT ::= '0' | '1' | '2' | '3' | '4' | '5' | '6' | '7' | '8' | '9'

VAR ::= LOWER_CASE_LETTER [CHARS]

CHARS ::= {UPPER_CASE_LETTER | LOWER_CASE_LETTER | DIGIT | '_'}