cis112-2025-1-e2Midterm2-Q2-q2: Float literal in Java

v2025-04-27

ToDo

D0. Common material

Consider `cis000_common` package.

1. Update `StudentInfo` with your info.

2. Read `ExamInLab-forStudents.pdf` carefully.

D1. Validator for Java float literal

This question is similar to Project-2.

1. Check "EBNF: Java Floating-Point Literals" given below.

2. Complete `ValidatorFloatLiteral`.

3. You can use `ValidatorFloatLiteral_Test` during your development.

4. Evaluate your code with `TS_ValidatorFloatLiteral_jUnit`. **Warning.** Do not change it.

EBNF: Java Floating-Point Literals (Simplified)

```
float_literal       = decimal_float ;

decimal_float       = decimal_digits, [ "." , [ decimal_digits ] ]
                        , [ exponent_part ], [ float_type_suffix ]
                      | ".", decimal_digits, [ exponent_part ], [ float_type_suffix ]
                      | decimal_digits, exponent_part, [ float_type_suffix ]
                      ;

exponent_part       = ( "e" | "E" ), [ "+" | "-" ], decimal_digits ;

decimal_digits      = decimal_digit, { decimal_digit | "_" } ;

decimal_digit       = "0".."9" ;

float_type_suffix   = "f" | "F" | "d" | "D" ;  // float or double
```