COMP301 – SPRING 2023 – PROJECT 2

Part A

Components of the language

- Syntax and datatypes
- Values
- Environment
- Behavior Specification
- Behavior Implementation
    1. Scanning
    2. Parsing
    3. Evaluation

Where or which racket files we define and handle them

- Syntax and datatypes: lang.rkt
- Values: data_structures.rkt
- Environment: environment.rkt
- Behavior Specification: interp.rkt
- Behavior Implementation
    1. Scanning: lang.rkt
    2. Parsing: lang.rkt
    3. Evaluation: interp.rkt

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Part B

We choose x = 10, y = 12, and z = 16, randomly.

- [z = 16]p
- [y = 12, z = 16]p
- [x = 10, y = 12, z = 16]p

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Part C

Expressed Values → Int + Bool + Rational + List + String

Denoted Values → Int + Bool + Rational + List + String

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Workload

We, at the beginning, conducted a long Zoom session where we analyzed and also structured a plan to complete the project. In this session, we implemented the data_structures.rkt, environment.rkt and lang.rkt. After that, we worked on interp.rkt file together again in another session. Even though this is not completed in only one session, the remaining parts are divided equally in the team members. Overall, we can easily say that this was a total team work.