Post-Mortem

CS135 Fall 2024, Assignment 03

Question 2 (complexmath.rkt)

Purpose:
- Many students did not use meaningful parameter names.

Contract
- Many students did not include requirements;
- Some students used the parameters in the structure explicitly instead of using the `Point` structure;
- Some students did not capitalize the first letter of `Point`.

Question 3 (robot-nav.rkt)

Data Definition:
- Many students missed one or both requirements or wrote incorrect requirements;
- Many students used incorrect data types in the data definition;
- Some students did not capitalize the structure name `State`.

Purpose:
- Some students wrote incorrect description of the function.

Contract
- Many students missed the requirements;
- Many students forgot the capitalization of data types;
- Some students wrote the incorrect consumed and produced types;
  - Some students wrote `Symbol` or `Command` instead of `Sym`;
  - Some students wrote `(make-state Nat Nat Sym)` instead of `State`.

Code Complexity
- Many students did not use helper functions;
- Many students did not use constants for the min and max coordinates;
- Some students did not write design recipe for helper functions.

Question 4 (rfl.rkt)

Data Definition:

- Many students did not capitalize the data types;

- Some students used `String` instead of `Str`;

- Some students did not format correctly as a `(make-mod ...)`, `(make-robot ...)` or a `(make-sub-mod ...)`;

- Many students did not use `Sub-Mod` as a data type in `Mod` definition and not using `Mod` as a data type in `Robot` definition (`Str` was commonly used instead);

- Many students missed requirements that weight > 0 and that primary `Sub-Mod` weight is $>=$ secondary `Sub-Mod` weight.

Purpose:

- Many students did not include parameters in function header;

- Some students incorrectly said the function returned the heaviest robot; it should have mentioned that it produces the name of the heaviest robot.

Contract

- Many students used the incorrect format;

- Many students put the produced type of `predict-winner` to be `Robot` instead of `Str`

- Some students used `String` instead of `Str`.

Code Complexity

- Many students did not use `mod-weight` from 4(b) to compare robot weights for `predict-winner` in 4(c)