Exercise Session – Paths

Luca Ezio Pozzoni

Politecnico di Milano
lucaezio.pozzoni@polimi.it

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DI MILANO

Context

- A fitness-oriented program models some paths that can be followed by runners.

- When a runner logs its activity on a path, it is awarded points according to the path length and its difficulty rating.

- This rating depends on the reviews left by other users, and is an unsigned value between 1 and 10.

Goals

- Implement `Path` class methods for rating an existing path and obtaining the points is should award to runners according to the formula

$$(\texttt{avg\_rating} + 2) * \texttt{length}$$

- Implement a class HikingPath extending Path and containing information about the elevation gain of the trek, computing awarded points according to the formula

$$10*\texttt{length} + \texttt{height}/100$$

This class can be rated by users with values between 0 and 15