

20 Programming paradigms – Part 1

—Answers

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Work through these after trying the questions yourself.

20.1 A style of programming —a way of structuring a program.

20.2 A sequence of commands that change the program’s state.

20.3 Data (attributes) and methods (operations).

20.4 A template that objects are made from.

20.5 An object is an instance of a class.

20.6 The class is written once and defines the shared structure (name, grade) and behaviour. Each student is then just an object of that class, so the code is shorter, consistent and far easier to change than 100 separate sets of variables.

20.7 A `Car` class could hold data such as `colour` and `speed`, with a method `accelerate`. Two objects might be `myCar` (red) and `taxi` (yellow) —same class, different data.