Late Variables

A late variable is a variable whose value will be determined at a later stage compared to when it was defined. For instance, if you have a stream controller in Dart which you cannot allocate immediately inside your class initializer, you may decide to flag it as “late”, to indicate that its value will be determined at a later stage than its definition, usually inside the constructor of your class.

Further reading:

- Late variables - dart.dev
- Late variables in dart and lazy initialization - dev.to
- Flutter: Lazy instantiation with the `late` keyword
- Dart Late Modifier - YouTube
- Dart Null Safety: The Ultimate Guide to Non-Nullable Types

Examples

```dart
// here we have a class that accepts a first name
// and a last name, but it's fullName member variable
// is marked as being a "late" variable, meaning that
// we are promising the compiler that this variable
// will in fact be initialized and set to a valid String
// instance before we use it.
class Person {
  final String firstName;
  final String lastName;
  late final String fullName;
  Person(this.firstName, this.lastName);
}
final person = Person('foo', 'bar');
// however here we crash the program by accessing
// "fullName" before it is initialized
print(person.fullName);
```