Attributes in C++17 Solutions

Attributes

- What is an attribute?
  - An attribute is a compiler directive
  - It is used to give instructions to the compiler, or provide it with extra information

fallthrough Attribute

- What is the purpose of the "fallthrough" attribute?
  - It tells the compiler not to give a warning when a case label in a switch statement does not have a break statement

- Why is the fallthrough attribute useful?
  - As well as suppressing potential compiler warnings, it indicates that the programmer intended to fall through to the next case

- Write a simple program that uses the fallthrough attribute

nodiscard Attribute

- What is the purpose of the "nodiscard" attribute?
  - It tells the compiler to give a warning when the return value from the function is discarded

- Write a simple program that uses the nodiscard attribute

- What does it mean if a struct is declared as nodiscard?
  - All functions that return objects of this type are automatically nodiscard

- Write a simple program that declares a struct as nodiscard

maybe_unused Attribute

- What is the purpose of the " maybe_unused " attribute?
  - It tells the compiler not to give a warning if the variable is not used

- Write a simple program that uses the maybe_unused attribute