BLOCK STRUCTURE AND SCOPE
INDENTATION

• Indentation helps the physical layout of code reflect its logical behavior
• Indented code “belongs to” or is nested inside a control statement
• Use indentation consistently
  • Don’t mix styles
  • Don’t mix indentation characters
• Indentation should make the code easier to read
• A block is delimited by an opening and a closing brace: { and }
• Blocks can be created anywhere in a program but are usually associated with control statements, functions, etc.
• A block creates a new scope
Scope is the location in a program where a named item (often a variable) is visible and accessible.

Three main scopes:

- Local – inside a function
- class – inside a class
- global – throughout a program (generally avoided)

Variables defined in a block / scope are not visible or accessible

Variable names must be unique within a scope
LOCAL

- `int counter = 10;`
- Initialized each time the variable comes into scope

GLOBAL

- `int counter = 10;`
- Initialized once when the program is first loaded into memory