* **Compiler**: Translates whole code to machine code at once.
* **Interpreter**: Translates and runs code line by line.
* **Java & C#**: Use hybrid approach (compile then interpret or JIT).
* **Compile-Time Errors**: Happen due to wrong syntax.
* **Run-Time Errors**: Happen when program runs, like divide by zero.
* **Logical Errors**: Program runs but gives wrong output.
* **File I/O Errors**: Problems when reading or writing files.
* **Comments**: Notes inside code to explain, ignored by computer.
* **Regions**: Group parts of code to make it organized.
* **Variables**: Store data, declared with type and name.
* **Value Types**: Store data directly in stack (like int, char).
* **Reference Types**: Store reference in stack, data in heap (like class, array).
* **Generics**: Make code work with any data type safely.
* **Object Type**: The base type for all types in C#, gives common methods.