

c#

- Anatomy of code language
 - Compiler, runtime, platform
- Environment setup
 - IDE, editor, version control
- Basic topics
 - Core c#, program structure, testing logging
- .NET building blocks
 - Framework, standard, core, project, solution, assembly, library, application
- Common language runtime
 - BCL, CIL, CLI, CLR, CTS, JIT, VES
- Runtime environment
 - Garbage collection, managed, unmanaged
- Data types
 - Reference, value
- Access modifiers
 - Internal, private, protected, public
- Extended modifiers
 - Abstract, const, new, override, partial, readonly, sealed, static, virtual
- Struct
 - Value type
- Interface
- Enum
- Semantic code
 - dry , inline/XML, comments, separation of concerns, KISS
- Object oriented programming
 - Abstraction, encapsulation, polymorphism, inheritance
- Working with types
 - Casting, as boxing, is, out, ref, typeof, generics
- Collections
 - array , list, set, dictionary, stack, queue
- Serialization
 - File i/o, regular expressions, json, xml
- Exception handling
 - Try, catch, finally, custom exceptions
- Testing
 - Unit testing, xunit, fact theory, TDD
- Debugging
 - Breakpoint, step, logging, log level
- SOLID
- Delegates
 - Func, action, event, lambda, linq
- Multithreading

- Task, await, async, thread
- GIT
 - Add, commit, log, pull, push, status, clone