Code Review Guidelines for .NET Developers

PRO Code Reviewer

- Identifies and fixes any bug
- Ensures positive feedback on code
- Assists teammates

Code Review Covers

- Reading code
- Spotting changes
- Providing clear feedback
- Ensuring code approval

Productive Approach

- Understanding team's priorities
- Reply to every comment
- Assess task priority for every case
- Choose discussing over arguing
- Explain, you'll get more insights
- Be concise and clear
- One link more helpful than hundred comments
- Lightweight code review is conversation
- Goal - get adequate code check results

Code Review Best Practices

Before You Start

- Stick to style guide
- Remove compilation warning
- Perform Code Analysis

Code Structure Check

- Code is well-structured
- Code has no excessively complex modules
- Factor out repetitive code
- Remove unneeded methods or stubs
- Local variables have self-documenting names
- Present symbolic rather than "magic numbers" or strings
- Replace external reusable components by calls

Documentation Check

- Documenting comments is meaningful
- Comments are related to the code purpose
- Comments are up to date

Performance Check

- Remember that ValueTypes can hurt performance if using incorrectly
- Apply System.Text.StringBuilder instead of C# + operator or VB Concatenation Operators ("&", "+") to avoid performance pitfalls
- Avoid using empty destructors

Thread safety Check

- Access to objects by multiple threads is synchronized
- Locks are acquired without causing the thread interlock

Code Review Automation

Code Review Bundle is irreplaceable in code review if you need:

- create review requests
- work in integration with Visual Studio
- perform tasks in support with TFS, Subversion, Git, Mercurial, and Perforce
- view added review comments from a file comparison document
- highlight code regions with review comments
- make code folding
- perform files merging
- assign multiple code authors to reviewed projects
- flag defects in comments
- make comment on binary files

Code Review facilitates the communication among the team members (sharpens up the ability of conveying the ideas and teaches teamwork), and elevates the team to the next professional level due to a great number of skills the developers acquire when participating in the review. Examining the computer source code systematically, you learn how to introduce changes efficiently.

Make it professionally with Devart Code Review Tools!

Productivity Tools

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