



Is your code Toggled?!?

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What is Agile?



According to Agile Manifesto...

The Agile Manifesto is based on 12 principles

- 1.Customer satisfaction by rapid delivery of useful software**
- 2.Welcome changing requirements, even late in development
- 3.Working software is delivered frequently (weeks rather than months)**
- 4.Close, daily cooperation between business people and developers
- 5.Projects are built around motivated individuals, who should be trusted
- 6.Face-to-face conversation is the best form of communication (co-location)
- 7.Working software is the principal measure of progress
- 8.Sustainable development, able to maintain a constant pace
- 9.Continuous attention to technical excellence and good design
- 10.Simplicity—the art of maximizing the amount of work not done—is essential
- 11.Self-organizing teams
- 12.Regular adaptation to changing circumstances



Branches

- Release branch

 - Master & single work-in-branch

- Feature branch

 - Master & Multiple branches

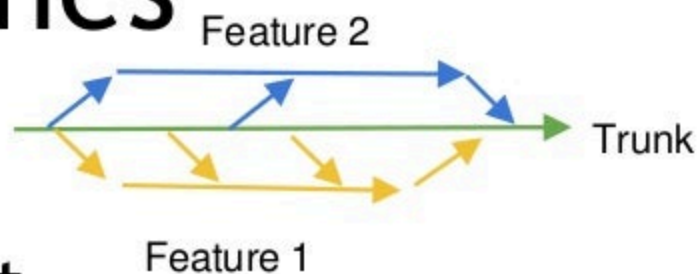


Release Branch

- Hotfixes has to wait till next release.
- Can't add any code if its not part of current release



Feature Branches



- Delayed integration
- Merging becomes very difficult
- Increases the testing effort
 - Lot of time spent on Regression & Integration Testing
- Reduces the re-usability of shared automate test-suite



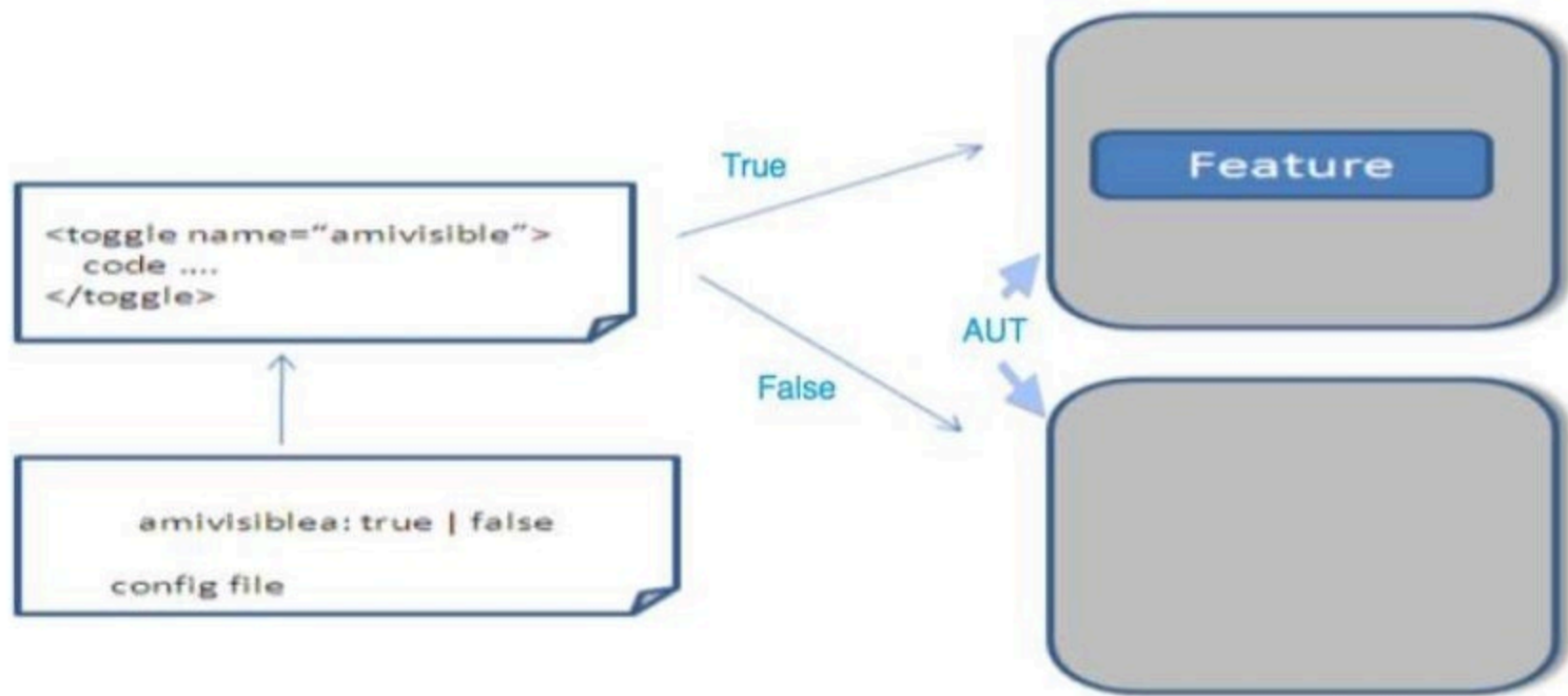
Feature Toggle!?!



- What is toggle?
- Feature Toggle is a conditional statement that hides certain functionality.



Guard the code



Types of Feature Toggles

- Release Toggles:** (Development Environment)
Hide incomplete features and are removed as soon as feature is ready
- Business Toggles:** (Business Sponsors)
Enable feature for group of people and can be changed on fly



Feature Toggles is opt for....

- Hiding or disabling new features in UI
- Hiding/Disabling new components
- To support multiple versions of feature/component
- Adding new feature to an application
- Enhancing an existing feature



How to implement ?

- Config files
- Toggle manager controlled by Admin
- Session cookie



Lets Toggle!!

Few ways to control the application using toggles

- via server-side
- via client-side
 - URL parameterization
 - Javascript



via server

pros

- Feature is available, till next build is deployed
- No further setup is needed

cons

- Need to wait for deployment to complete
- Switching between toggles is difficult



via client

- Need to know feature flag to enable it
- Feature is available, only on local machine
- Testing becomes easier, as we have more control of application



Business toggles

- Used in production environment
- To enable A/B testing
- Release features to group of users for early feedback



While implementing toggles...

- Try to keep less number of toggles
- Mutually Exclusive toggles
- Remove the toggles as soon as corresponding feature is implemented completely



What will you achieve...?!

- Continuous integration
- More visibility into all work streams
- No merge conflicts and hence easy to refactor the code
- Reduced time spent on testing



Having said....

Feature toggle is second best solution.
The best solution is to find a way to
gradually integrate, without feature toggles
or feature switches







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