

# Arlo's Commit Notation

## ALCOR Academy – CODE RENOVATION

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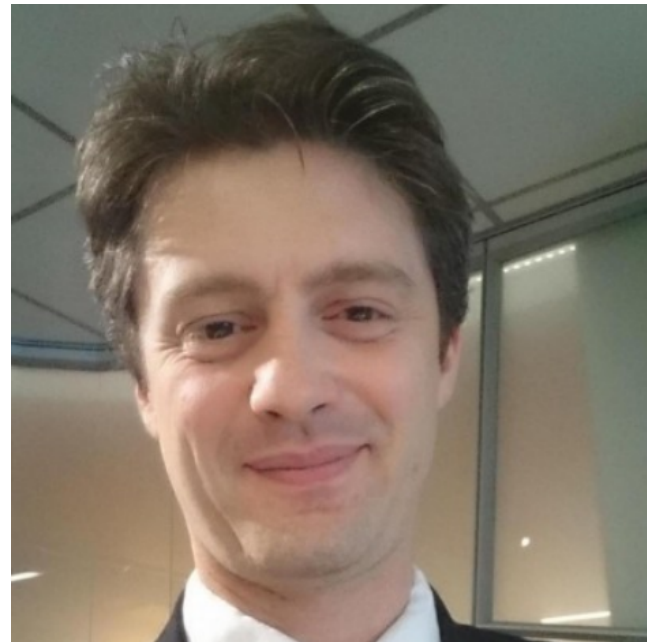
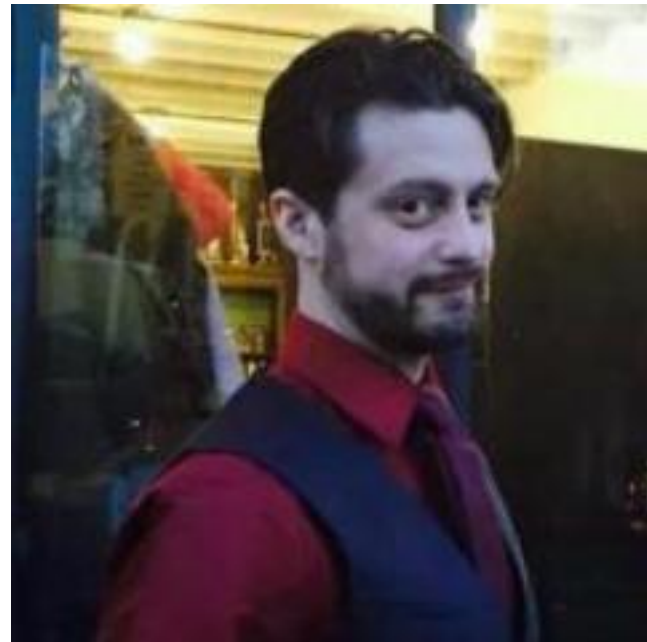
Who the Fuck is Arlo?

Smokie: Living Next Door to Alice



Who is Arlo?

# Who is Arlo?



- The full name is **Arlo Belshee**
- He lives in Asheville, North Carolina
- He is...
  - Engineering Leader
  - Excellent Engineer - Legacy Code
  - DevOps Mentor
- He worked at Microsoft for over three years as a senior developer
- Marco follows him on LinkedIn ;-)



# What is Arlo's Commit Notation?



# What is Arlo's Commit Notation?

- It is a prefix in the commit notation
- Describes the core intent of a commit
- Classifies a commit



# The Four Risk Levels



# The Four Risk Levels

Risk Level	Code	Example	Meaning
Known safe	lowercase letter	<b>r</b> - Extract method Applesauce	Addresses all known and unknown risks.
Validated	uppercase letter	<b>R</b> - Extract method Applesauce	Addresses all known risks.
Risky	uppercase followed by 2 bangs	<b>R!!</b> Extract method Applesauce	Known risks remain unverified.
(Probably) Broken	uppercase followed by 2 stars	<b>R**</b> Start extracting method with no name	No risk attestation.



# Core Intentions

# Core Intentions

Prefix	Name	Intention
<b>F</b>	Feature	Change or extend one aspect of program behavior without changing others.
<b>B</b>	Bugfix	Repair an existing, unwanted program behavior without changing another.
<b>R</b>	Refactoring	Change implementation without changing program behavior.
<b>D</b>	Documentation	Change something which communicates to team members and does not impact program behavior.



# Core Intentions

## Feature

- Known Risks
  - May change an unrelated feature.
  - May change a part of this feature that you wanted to leave unchanged.
  - May implement the intended change in a different way than intended.

# Core Intentions

## Feature

Code	Known Approaches
<b>f -</b>	None known
<b>F -</b>	Meets all of: <ul style="list-style-type: none"><li>- Change is <math>\leq 8</math> LoC</li><li>- Feature was fully unit tested prior to this change.</li><li>- Changes include new or modified unit tests that correspond to the intended behavior change.</li></ul>
<b>F!!</b>	Change includes unit tests for new behavior.
<b>F**</b>	No automatic tests, or unfinished implementation.



# Core Intentions

## Bugfix

- A bug fix is very similar to a feature. However, the intention is to change an undesired – and usually unintentional – behavior of the current system. The risk profile is similar but the intention is different, so there are often more operational risks.
- Known Risks
  - Intended change may have unintended consequences in the market. For example, customers may be depending on the bug.
  - May change unrelated feature.
  - May change a piece of this feature that you intended to remain unchanged.
  - May implement the intended change in a way different than intended.

# Core Intentions

## Bugfix

Code	Known Approaches
<b>b -</b>	None known
<b>B -</b>	Meets all of: <ul style="list-style-type: none"><li>- Reviewed current and new behavior with customer representative.</li><li>- Change is <math>\leq 8</math> LoC</li><li>- Bug's original (buggy) behavior was captured in a unit test prior to this change.</li><li>- Change includes 1 changed unit test, matching intended behavior alteration.</li></ul>
<b>B!!</b>	Change includes unit tests for new behavior.
<b>B**</b>	No automatic tests, or unfinished implementation.



# Core Intentions

## Refactoring or Remodeling

- A Refactoring or Remodeling intends to change the program in some way without changing any behavior. The risk levels indicate the probability of the commit living up to that intention, based on how the code change was executed.
- Known Risks
  - May cause a bug.
  - May fix a bug.
  - May change a behavior in a way that doesn't impact a user.
  - May force a test update.

# Core Intentions

## Refactoring or Remodeling

Code	Known Approaches
<b>r -</b>	One of: <ul style="list-style-type: none"><li>- Provable refactoring</li><li>- Test-supported Procedural Refactoring entirely within test code</li></ul>
<b>R -</b>	Test-supported Procedural Refactoring
<b>R!!</b>	Identified single, named refactoring, but executed by editing code or without whole-project test coverage.
<b>R**</b>	Remodeled by editing code, even in small chunks.



# Core Intentions

## Documentation

- Changes that don't impact the code, but do change documentation around the code. Note that this does not include end-user documentation.
- Known Risks
  - May mislead future developers.
  - May mislead other stakeholders.
  - May change team processes in ways that have unintended consequences.

# Core Intentions

## Documentation

Code	Known Approaches
<b>d -</b>	Developer-visible documentation, not in a source file, or verified to generate byte-identical compilation.
<b>D -</b>	Dev-impacting only, but changes compilation or process. E.g., changing text on a dev-only screen, or changes code-review checklist.
<b>D!!</b>	Changes an important process.
<b>D**</b>	Trying out a process change designed to gain information, not to work.

# Arlo's Commit Notation

## Rule in our team

- The Arlo's Commit Notation is not mandatory
- We have agreed that we have only two risk levels
  - lower- and uppercase letter
- Core Intentions
  - F: Feature
  - B: Bugfix
  - t: Test only
  - r: refactoring (no behavior change)
  - e: Environment (E.g. Dependency cleanup)
- After a uppercase letter a commit notation is mandatory



# Arlo's Commit Notation

Rule in our team

- Examples:
  - SLE-1234 F new flux capacitor function
  - SLE-1235 B Nullpointer on time traveling
  - SLE-1236 r
  - SLE-1237 e cleanup dependencies
  - SLE-1238 t checkYearAfterTimeTravel

# Arlo's Commit Notation

## Conclusion

- It makes great sense in connection with micro-commits
- It support you to do just one thing at a time  
(Michael Feathers: „Programming is the art of doing one thing at a time“)
- It saves time to write commit notation  
e.g. just write a „r“ or „e“
- It saves time on code-review. You can concentrate on the essential points

One more thing...



# Conclution of **CODE RENOVATION** course

- Wrapping
- Override



the AI version ... I don't like



# Conclution of **CODE RENOVATION** course

- Wrapping



- Override



the Phil version ;-)



# Q & A

```
1  package alcor.coderenovation;
2
3  public class Presentation {
4
5  @  public Answer askAQuestion(String question) {
6      if (question.contains("?")) {
7          return new Answer(s: "Maybe you can google it...");
8      }
9      return null;
10 }
11 }
12
```



# Thanks



T.hanks a lot

## References:

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