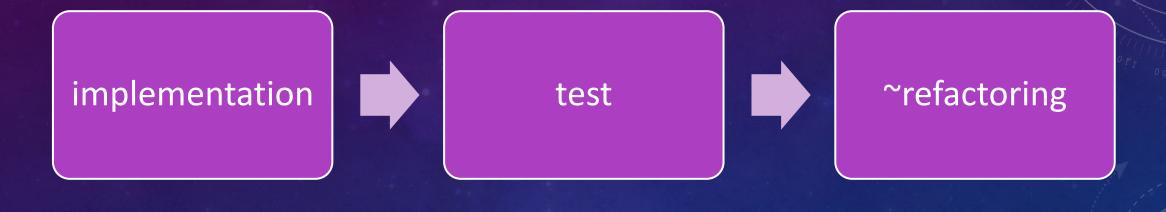


# FACTS ABOUT TESTING

- Ensure functionality
- Massive reduction of bugs
- 62,3% of developers write tests (2019)
- Unpopular

#### WORKFLOW



5 Methods (2 public)

multiple test methods

can be very difficult

#### PROBLEMS WITH TESTING

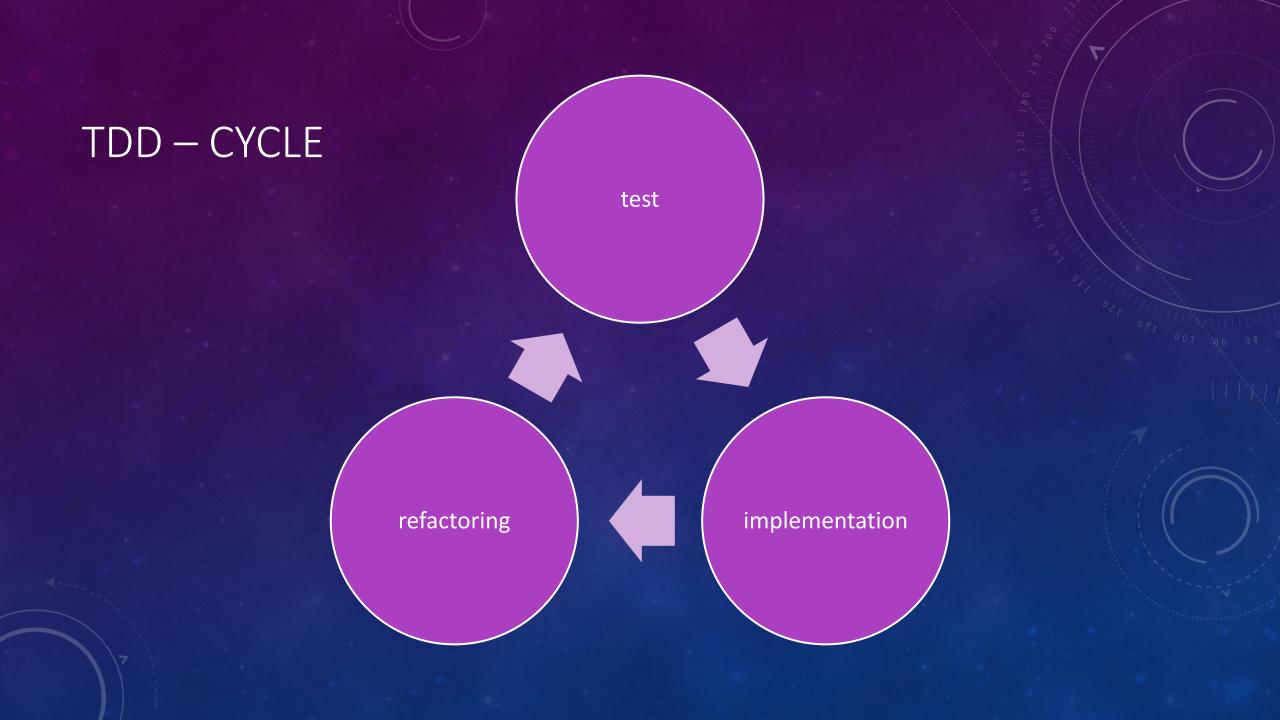
- Need extra work & time
- Hard to find names
- Not always usable or difficult
- Find the correct depth
- Focus on test coverage



# **IMPROVEMENTS**

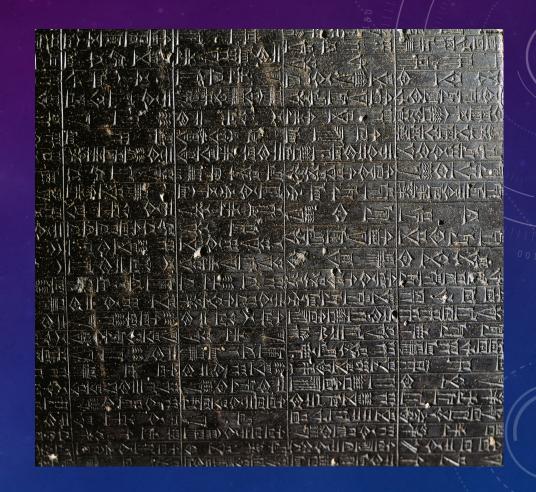
- TDD
- IDE
- Micro commits
- Mob or pair





#### TDD - RULES

- Run the test always after created
- V feature & X implementation
- Always the least code to make the test green
- Assert -> actual -> arrange

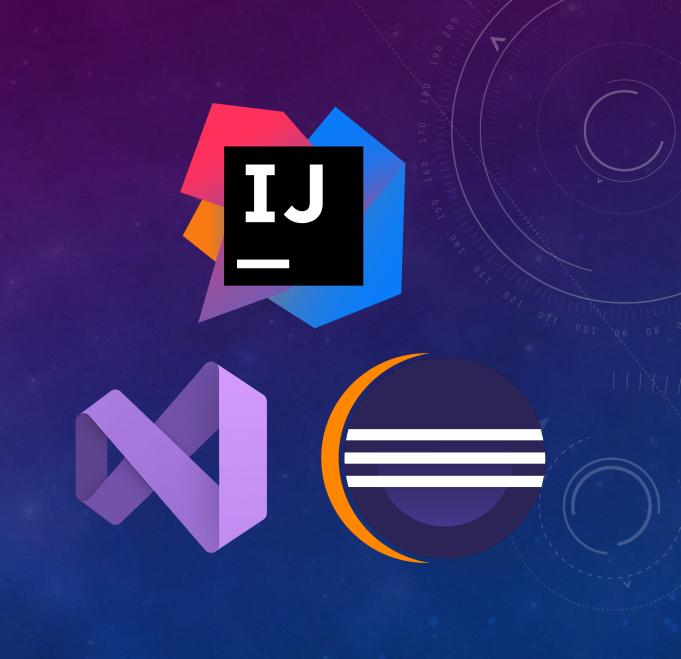


#### TDD - BENEFITS

- Easier to write clean tests and code
- Gurarantees testable code
- Avoids too large steps
- The workflow of the developer is consistent
- Documents the code

# IDE

- Shortcuts/hints
  - Variables
  - Methods
  - Classes
  - Executions
- Warnings
- Code formatting
- Git



#### MICRO COMMITS

- Commit after each step
- Mark the commits with an capital letter
  - F -> feature
  - T -> tests
  - R -> refactoring
- Clean commit history

## MOB & PAIR

- More ideas
- Needs no review
- Sharing the problem



### CONCLUSION OF THE IMPROVEMENTS

- Need extra work & time
- Hard to find names
- Not always usable or difficult
- Find the correct depth
- Focus on test-coverage ✓



# THANK YOU!