

DevDojo @ Quality Assurance

Mercari MK QA team

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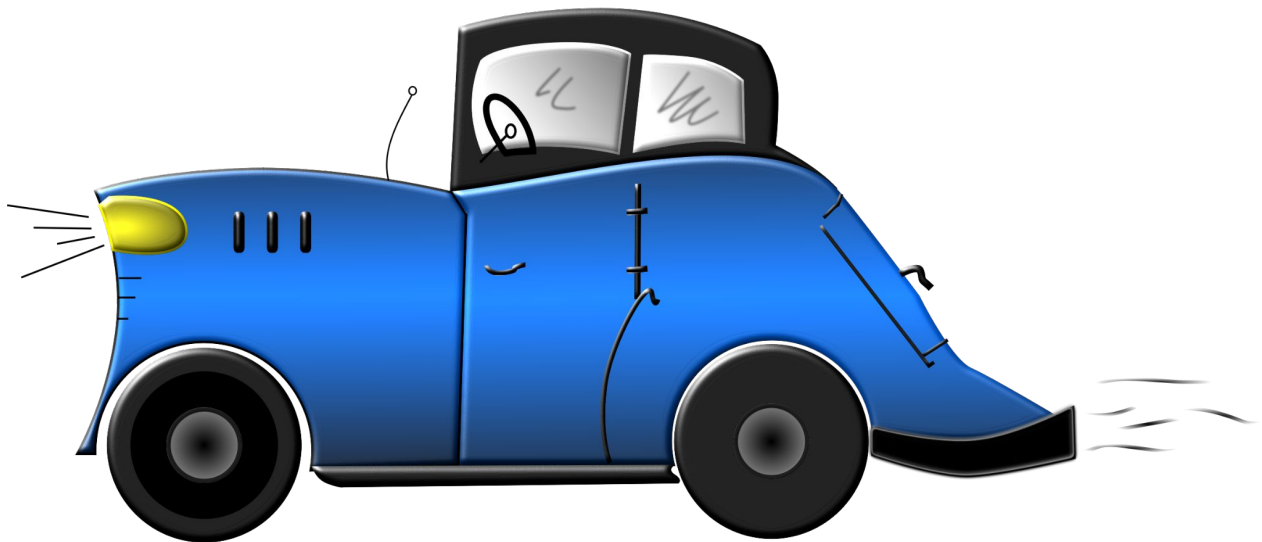


@Divya



@alejo

Why do cars have brakes?



| Agenda

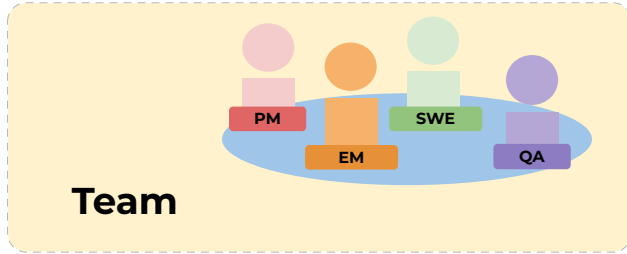
- About MK QA team
- QA process
- Release process
- Automation
- Q&A

About MK QA team

| How do we collaborate with dev teams?

- Process improvement
- Regression testing
- Review of feature specifications
- Creation and execution of Test Cases
- Measure and visualize product quality
- Create and maintain e2e automated Test Cases
- Provide QA portal for related information

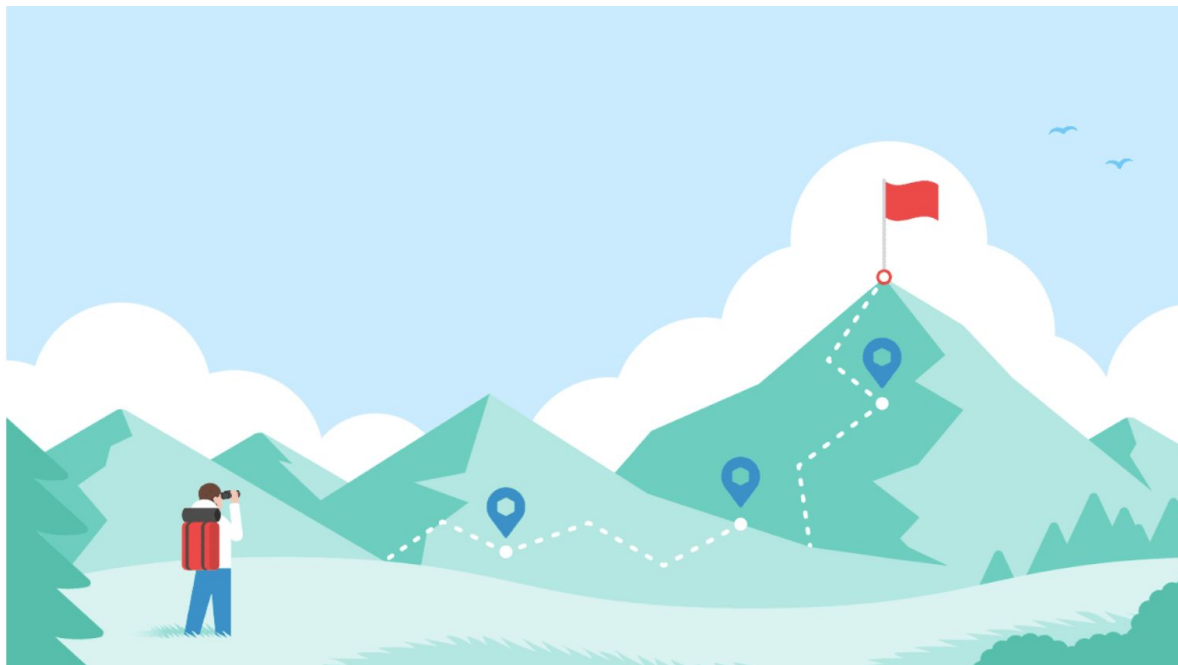
Team Structure



- Depending on the needs of each team, QA collaborates in a different capacity, some teams might not have QA members at all.
- QA collaborates with the main goal of improving how testing is conducted and implementing **QA Guidelines. Everybody on the team is responsible for the product's quality.**
- Focus is set on **increasing the quality from a product/customer perspective.**
- Hybrid role with both manual & automation tasks.

MK QA Mission

Quality at Speed

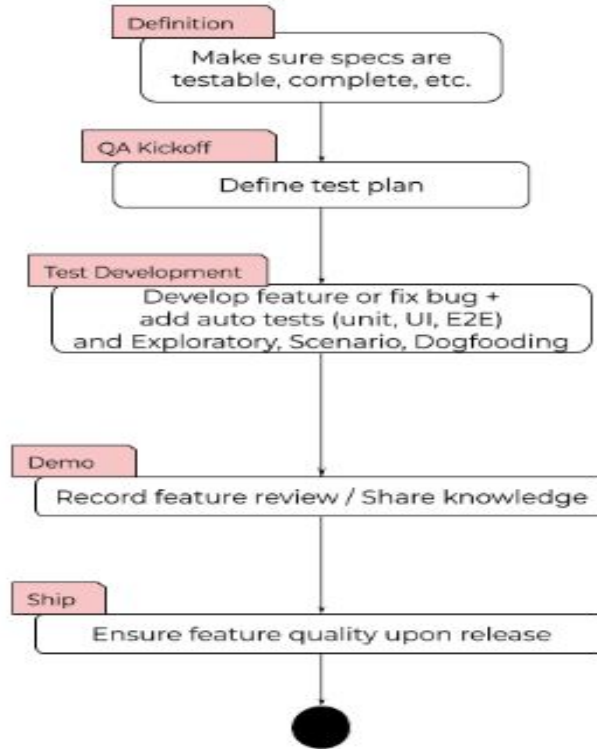


QA process

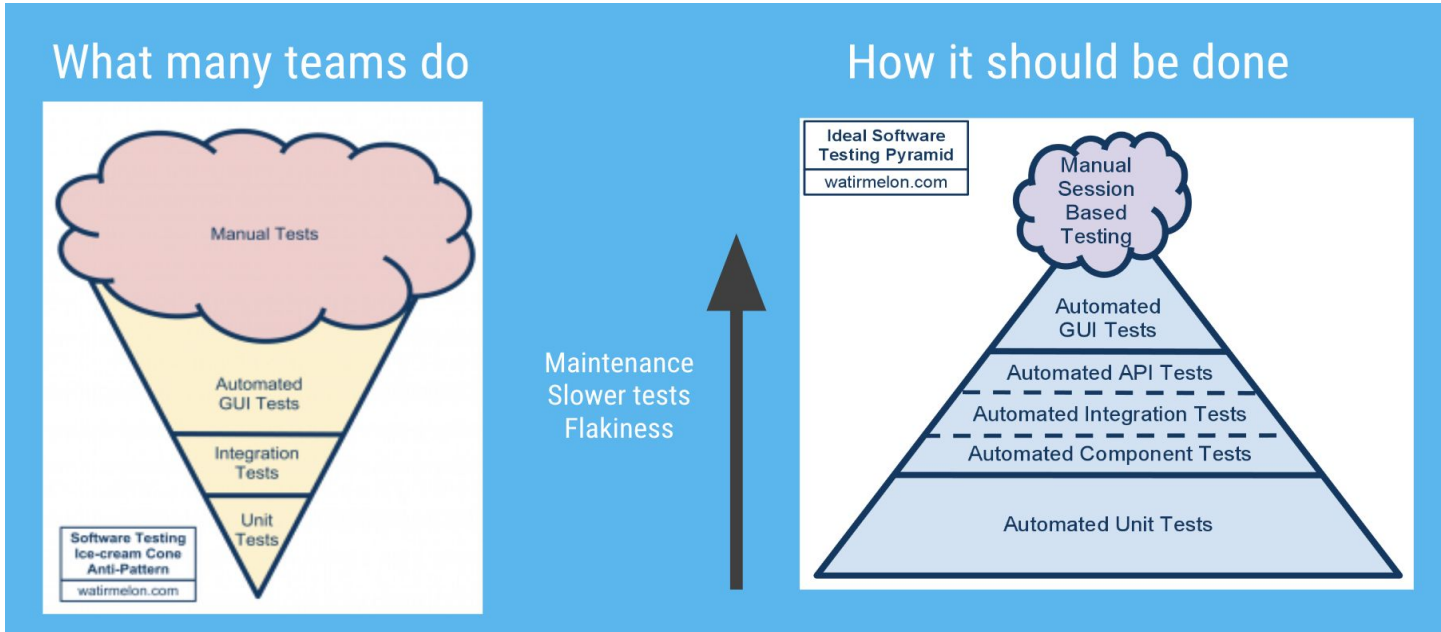
QA process

- QA Process is a **model of testing**
 - Engineer & PM **join** Quality Assurance and Testing
 - **Everyone understands what QA & Testing means**, and implement the QA process properly in the Software Development Life Cycle
- While QA usually has ownership of a feature Test Cases, **the whole team creates testing opportunities**
 - This includes automated tests (unit, API, integration, e2e, etc.)
 - And manual test cases, exploratory testing, dogfooding, etc.
- QA acts as a **team member** in teams
 - Reviews specifications & test cases, keeps overview of product quality
 - Plans testing to be conducted alongside development
 - Taking into account the test pyramid (next slide)
 - Helps organizing exploratory testing, **dogfooding**, etc

Overview of the Testing Process



Goal of the test process



Additional information:

<https://martinfowler.com/bliki/TestPyramid.html>

<https://engineering.mercari.com/en/blog/entry/20201211-quality-assurance-is-engineering-excellence/> (very good read from our CTO)

<https://github.com/kouzoh/mercari-groundup-ios/wiki/Testing>

<https://testing.googleblog.com/2015/04/just-say-no-to-more-end-to-end-tests.html>

https://docs.google.com/presentation/d/15qNk21rier3xo-b1ZqvQVGebOp_aPvHU3YH7YnOMxtE/edit#slide=id.g437663ce1_53_110

<https://medium.com/eventmobi/quality-without-qa-how-eventmobi-keeps-the-bar-high-81a6446e6dae>

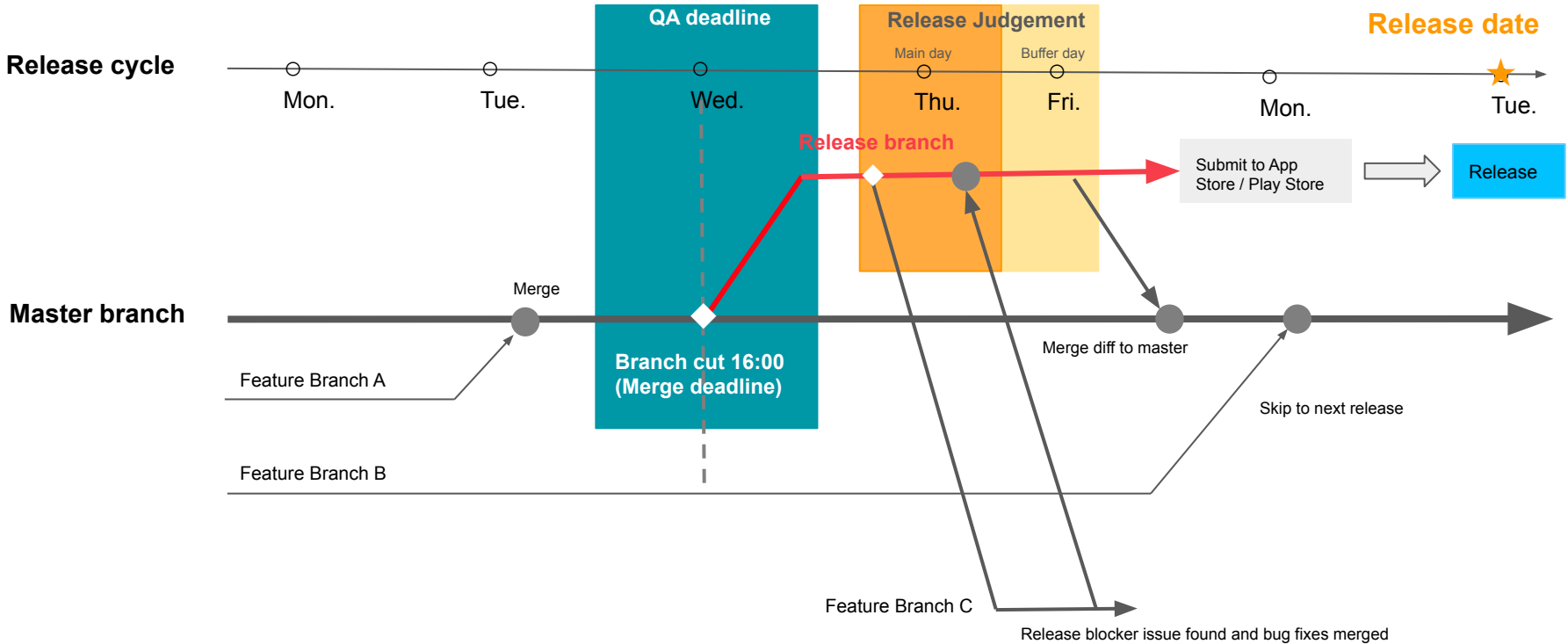
<https://hackernoon.com/common-excuses-why-developers-dont-test-their-software-908a465e122c>

| What is expected of Developers & PMs?

- To **plan feature testing** alongside QA
- **Perform self-checks** before merging or sending to QA
- **Keep traceability** of issues and results
- **Write unit, integration and/or API tests** for developed features
- **Help QA maintain** e2e tests
- **Assure the quality** of released features

Release process

Client Apps Release Train



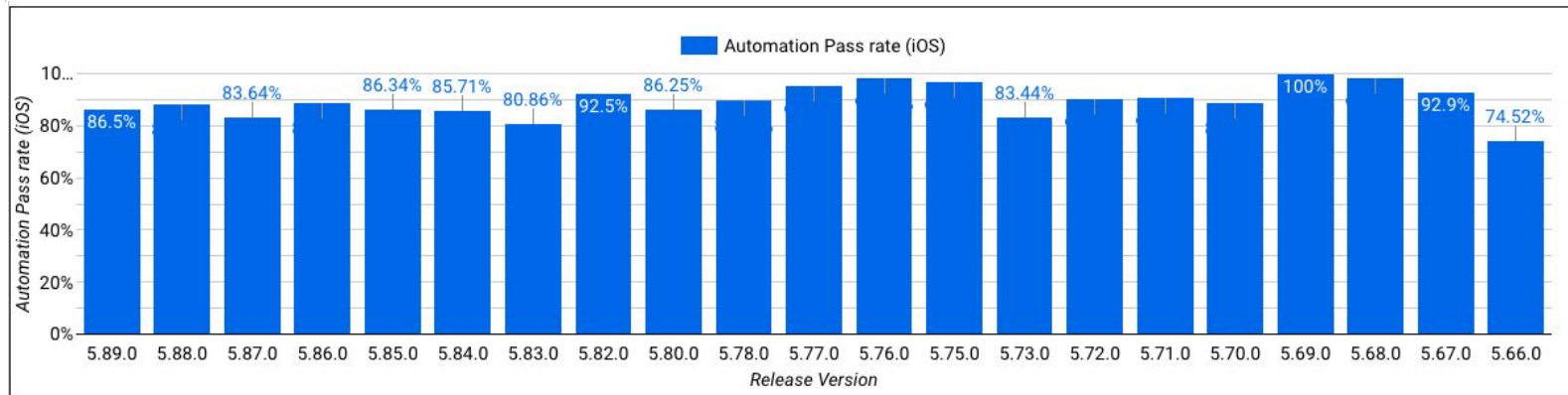
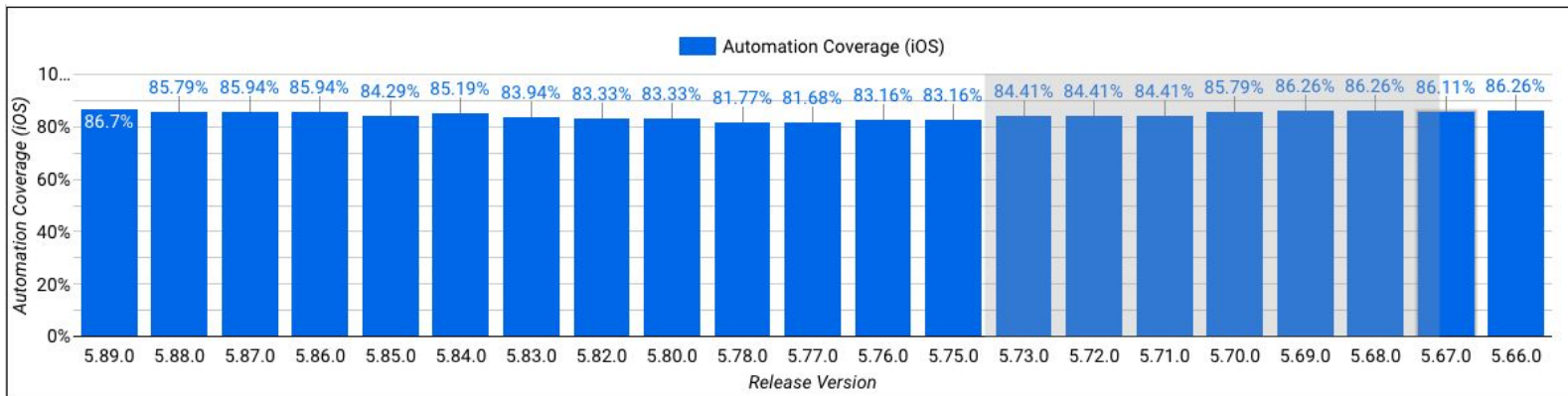
Release Judgement Test

- QA runs Release Judgement Tests after release branch cut
 - Automated & Manual (Currently approximately 85% automated and 15% manual)
- **Avoid merging to the release branch (after branch cut)**
 - If changes are made to the release branch, we need to re-test (depending on the severity of the change)
 - Avoid last minute merges before branch cut without proper testing
 - Unstable features will likely have release blocker bugs
 - When a critical bug is production, we release an ad hoc Hotfix version (overhead).
- If you need to merge to the release branch, contact the release facilitator to plan re-testing

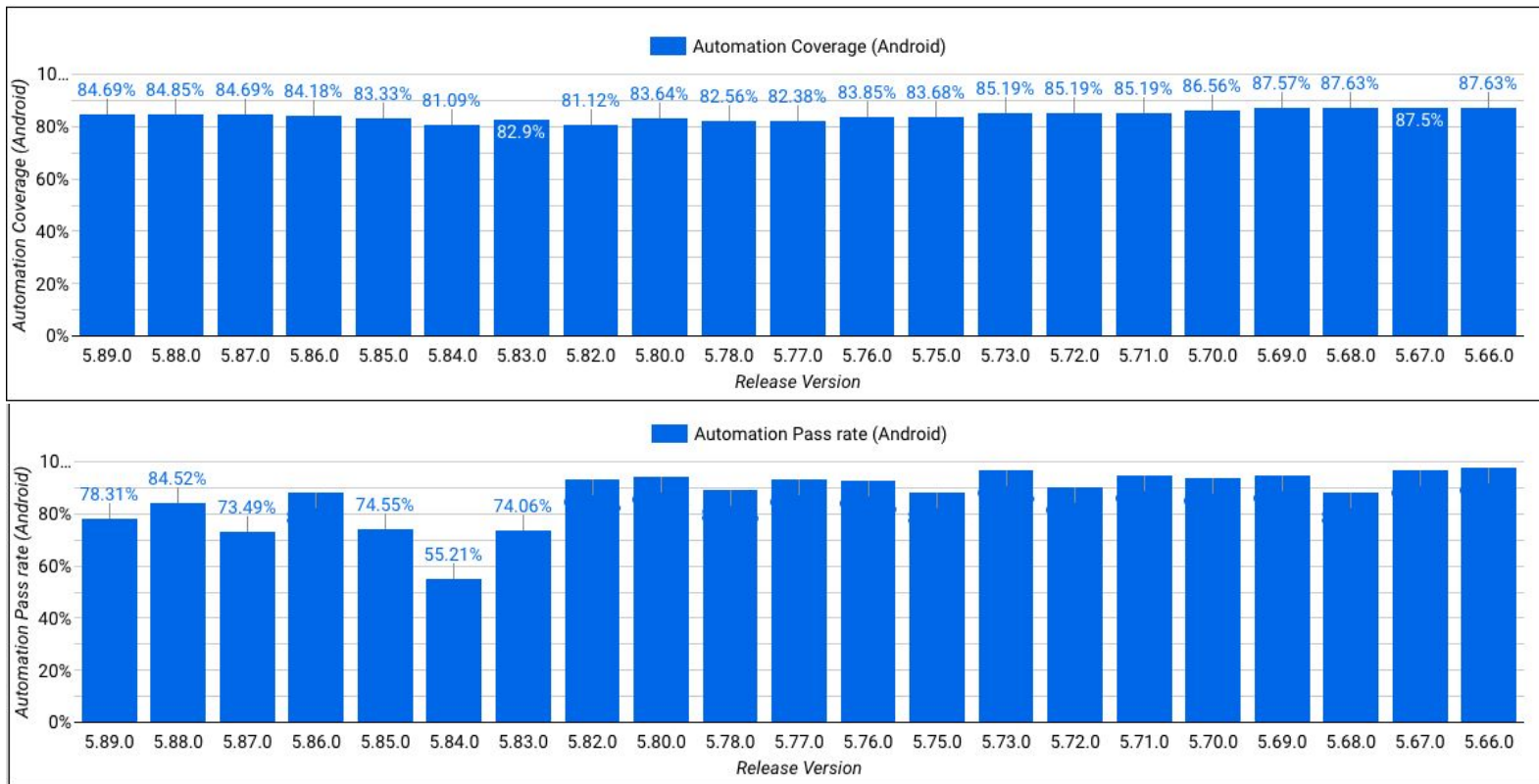
Web Release Train

- Similar process to the Client Apps release Train
- But in a shorter period of time
 - Release branch cut: Tuesday 14:00
 - Release day: Wednesday 12:00 approx
- For more information please check **this Confluence page**

Metrics iOS



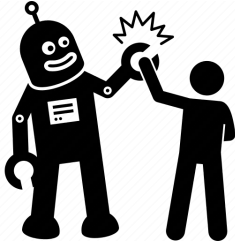
Metrics Android



Automation

What is automation?

“Test automation is **the use of software** separate from the software being tested **to control the execution of tests and the comparison of actual outcomes with predicted outcomes**. Test automation can **automate some repetitive but necessary tasks** in a formalized testing process already in place, or perform additional testing that would be difficult to do manually. Test automation is **critical for continuous delivery and continuous testing**.” (wikipedia: [Test automation](#))





Why?





- Automated tests can help reduce the amount of manual repetitive tasks
- Focus on regression and release judgement tests
 - Can cover multi browsers/devices when needed
 - Green light for safe release
- Fast development release cycles (supported by CI solutions)
- Increase quality on early stages of development



Coverage

- ~ 85% of our Release Judgement test suite is covered by automated UI tests
 - Login, Home, Search, Listing, Item Screen, Purchase, Transaction
- ~ 15% tests are done manually
 - Awaiting to be automated
 - Cannot be entirely automated or not automated at all
 - Automation cost is high and benefit is low

Tech stack

	 iOS	 android	 web	 API
Framework	XCUITest	Jetpack Compose	Playwright	Jest
Languages	Swift	Kotlin	TypeScript	TypeScript
Runs against	Simulator	Firebase Test Lab	Ark CI	Shell

Thank you!

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