MTSC2018

Google Testing Practices and How You Too Can Benefit

Justin Broughton

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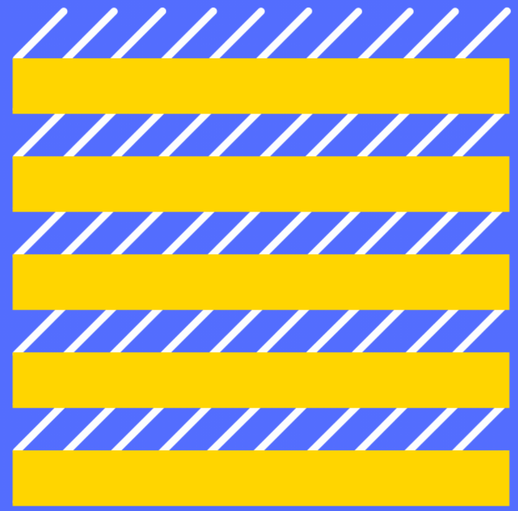
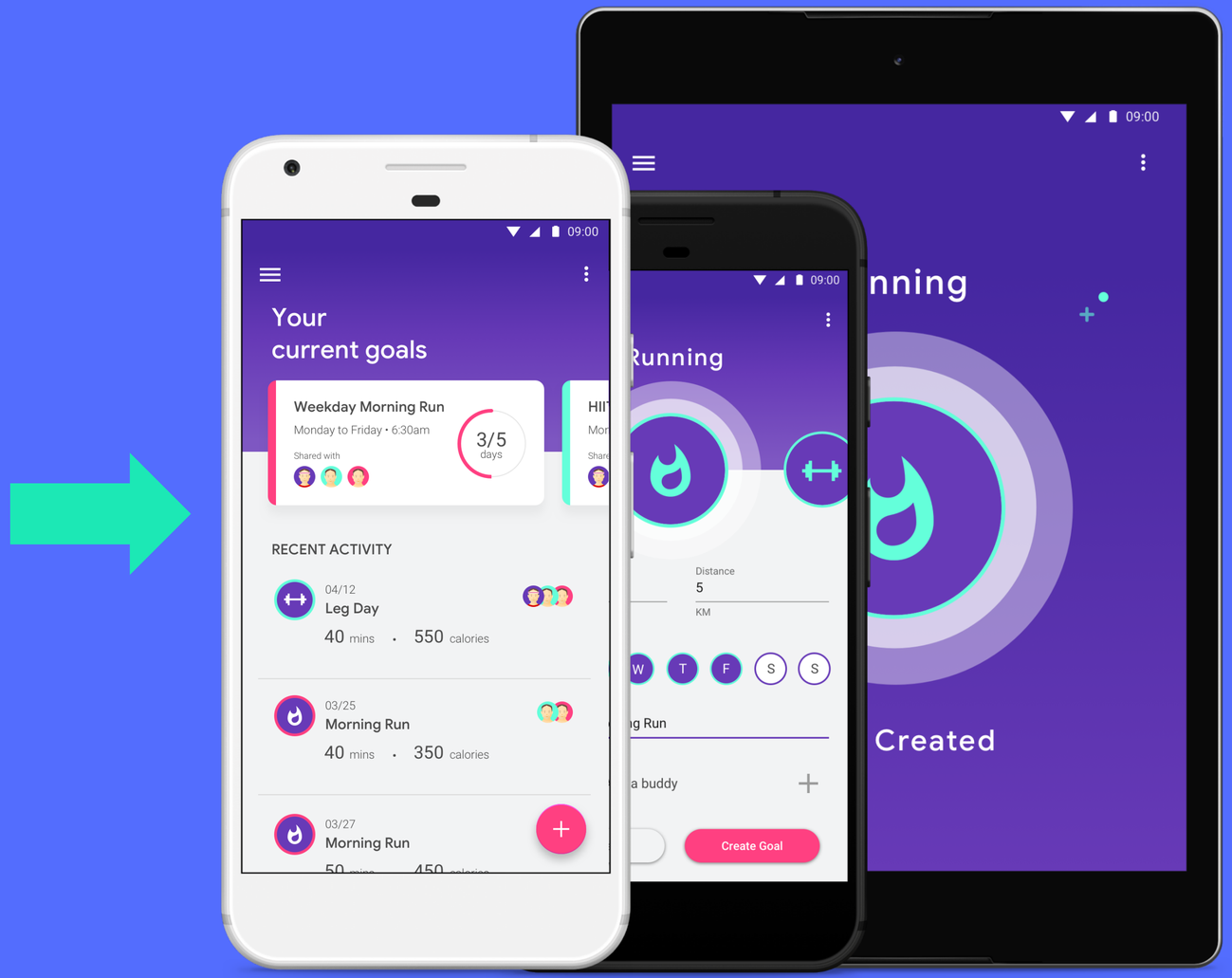
TesterHome | IT大咖说

Goals

Improve Android Ecosystem

Many Devices - Lots from China

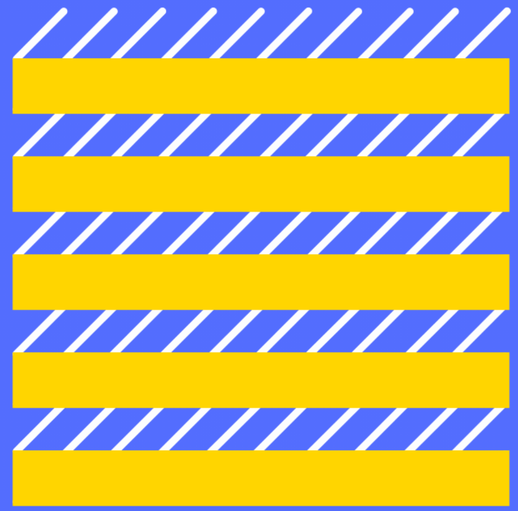




When does Google Test?

How does Google Test?

Running device infrastructure is hard



“Anything that can go wrong will go wrong” - Murphy's law

Pick the right devices

Today there are > 20K Android models worldwide

Clean up devices

Bring devices to a known state

Devices are not reliable

Consumer grade devices

Not designed for intensive use

Fire !!!

Battery swells potentially causing fire

Use non-certified devices

Pre-released devices

Devices from another countries

WiFi

Interference everywhere

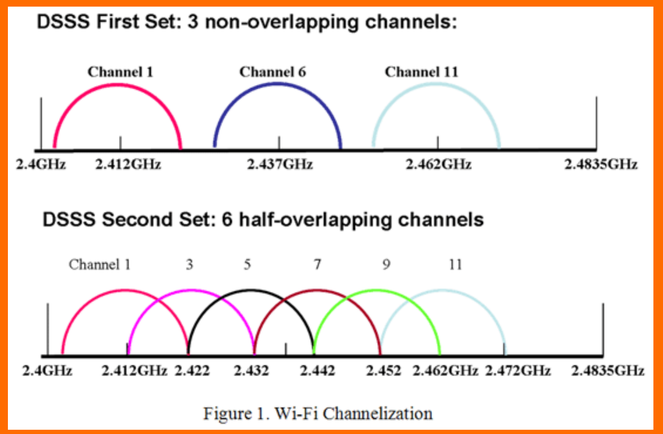
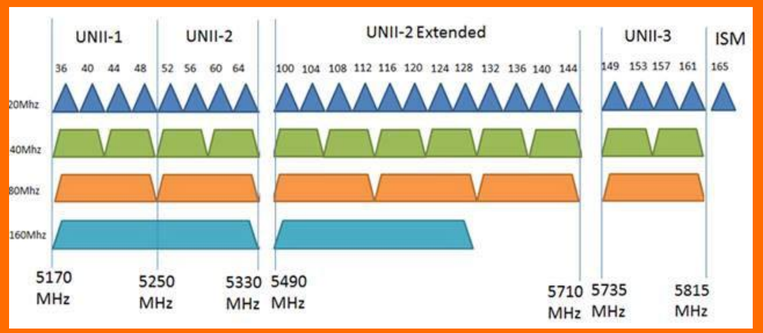


Figure 1. Wi-Fi Channelization



2.4 GHz band - 3 non-overlapping channel

5 GHz band - 24 US, 19 EU non-overlapping channel

Electromagnetic (EM) Pulse insulation

Divide and conquer !

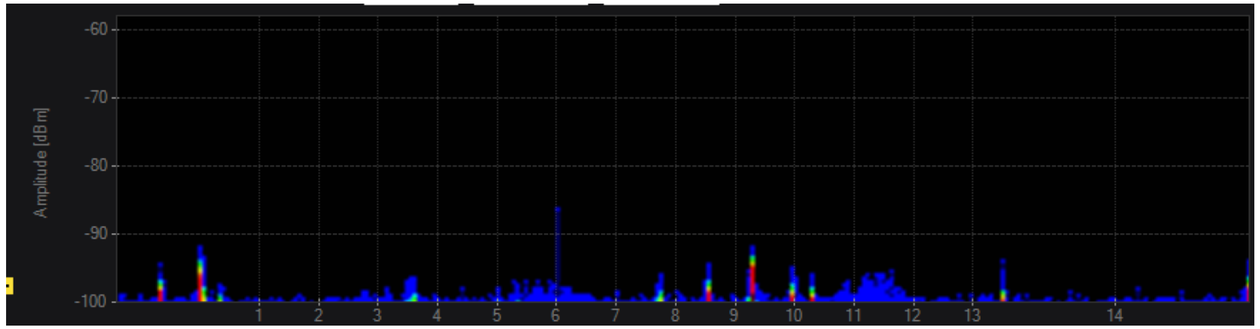


Chart 1

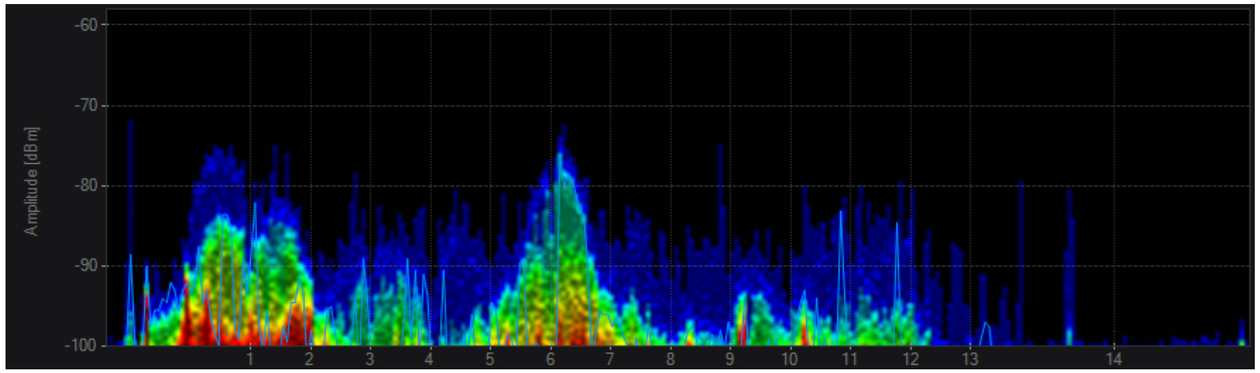


Chart 2

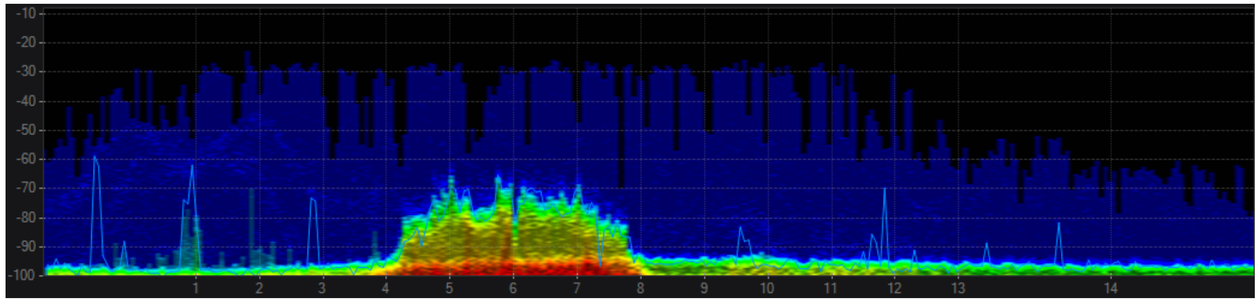
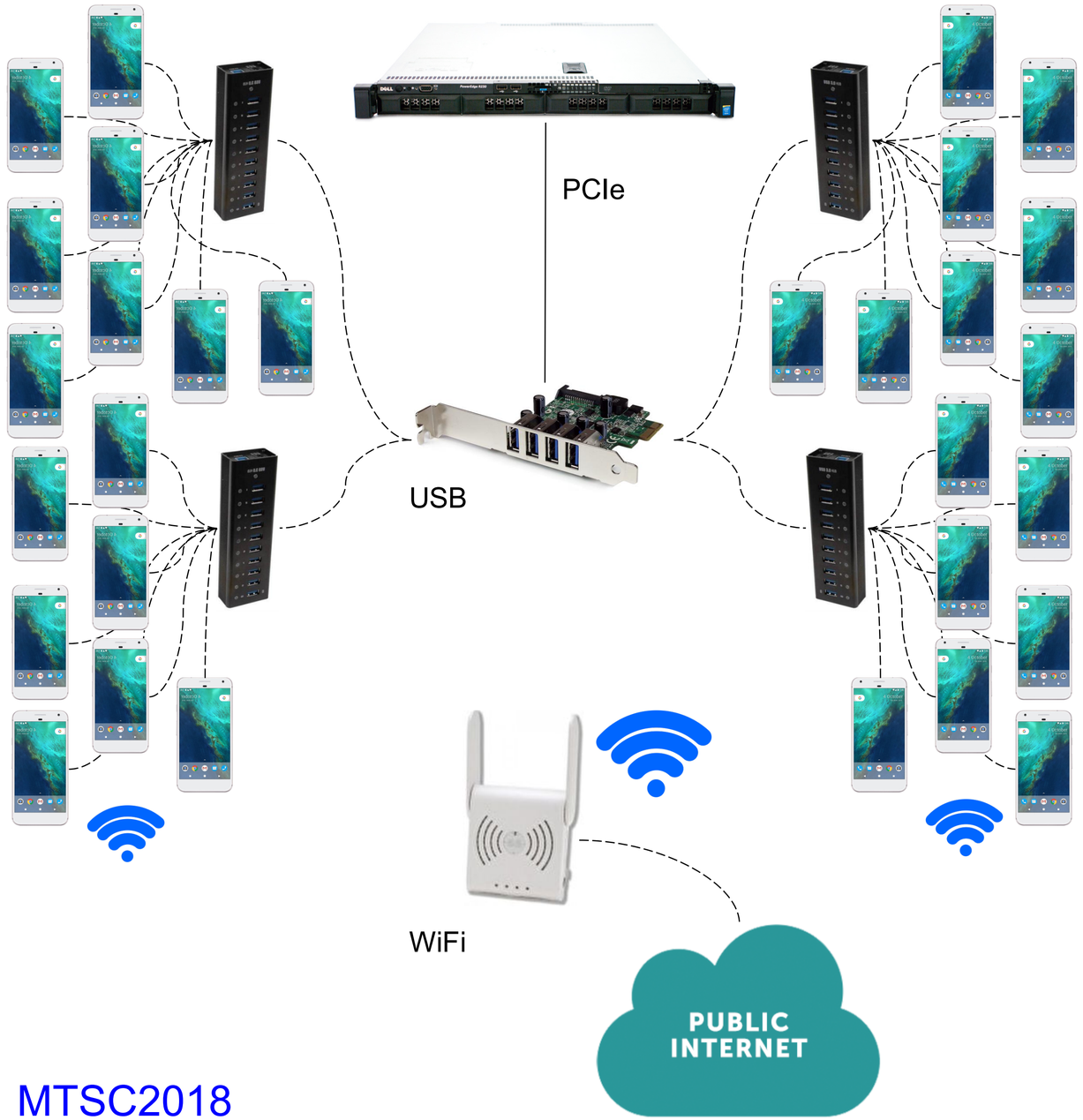
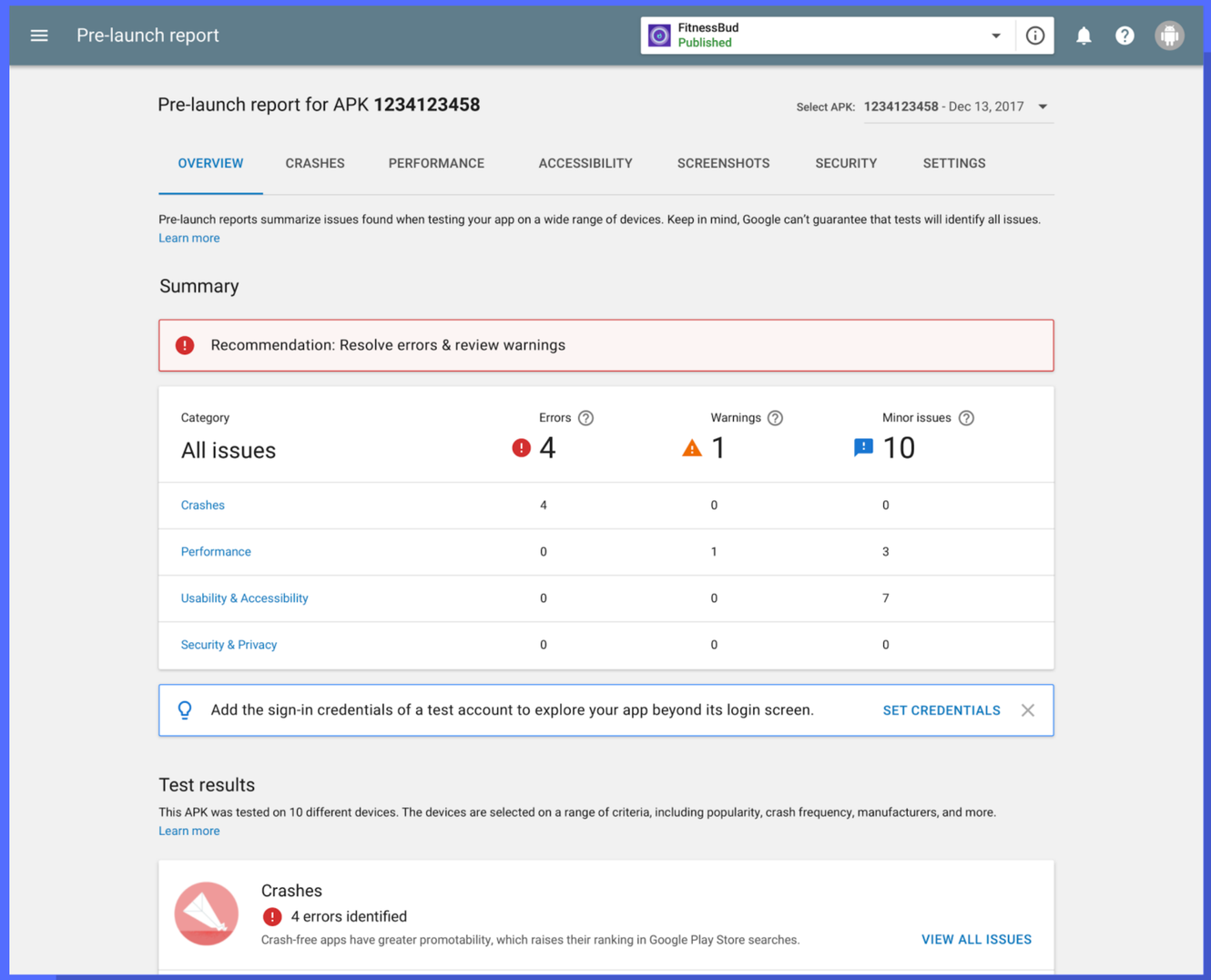


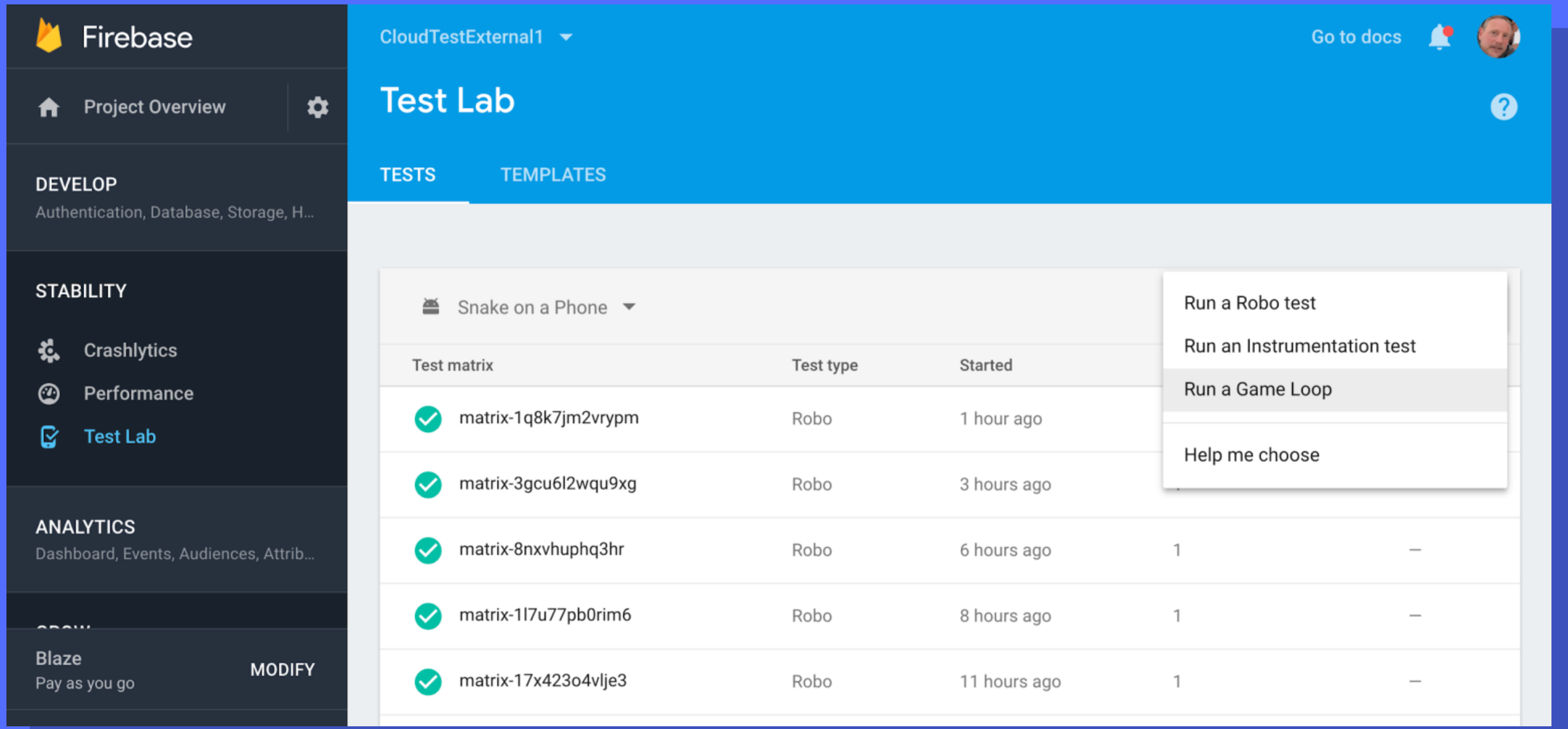
Chart 3



Google test infrastructure



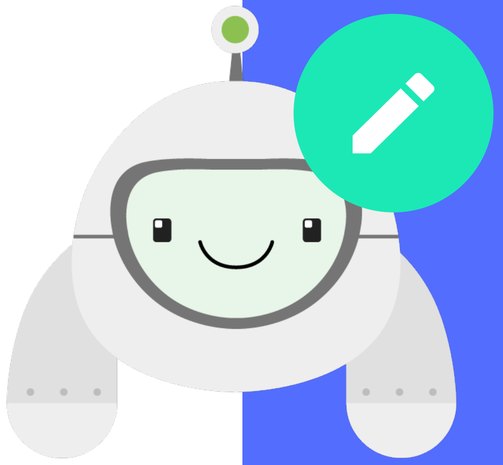
Pre-Launch Report

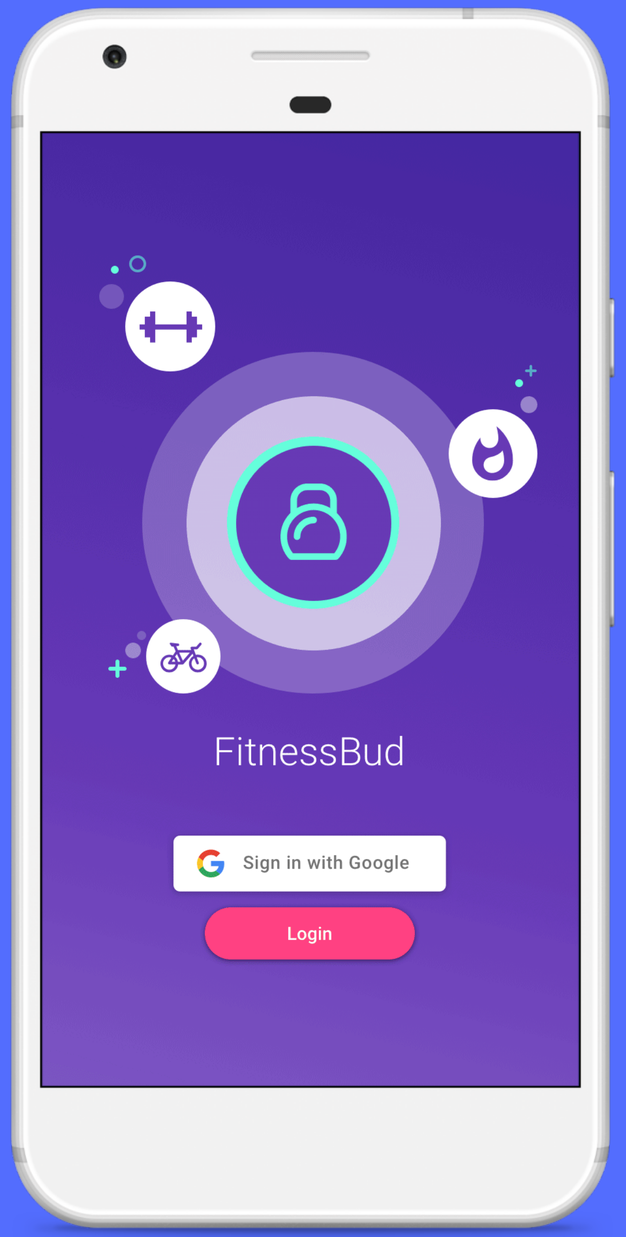


Firebase Test Lab

Controlling your Crawl

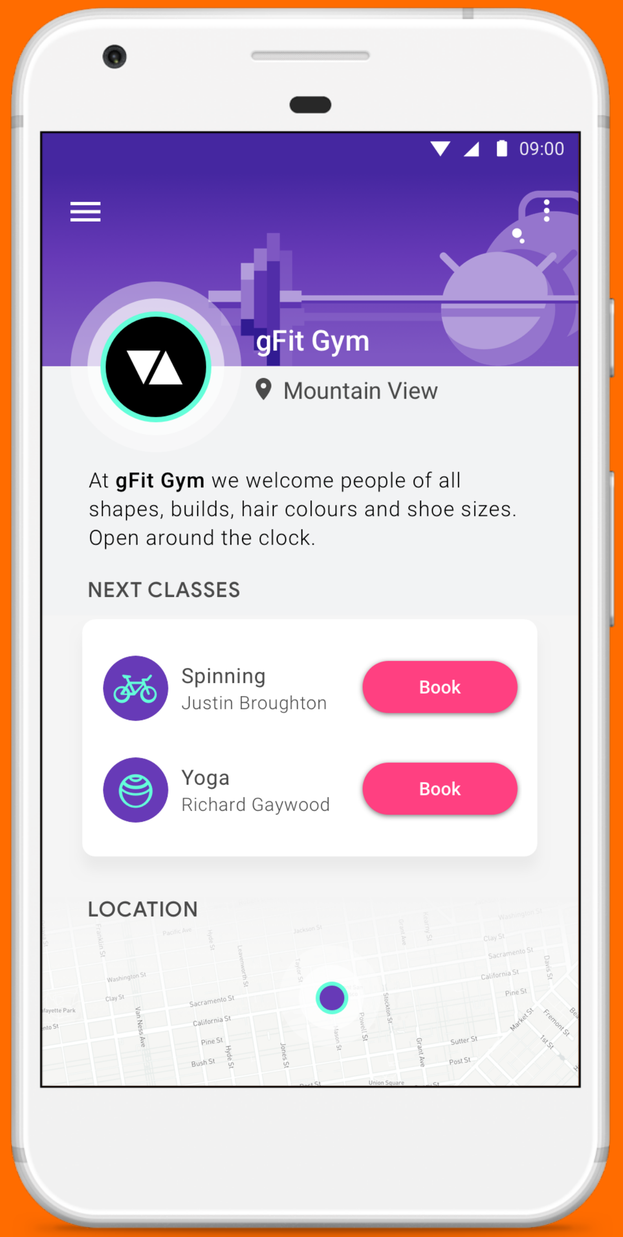
Login Credentials





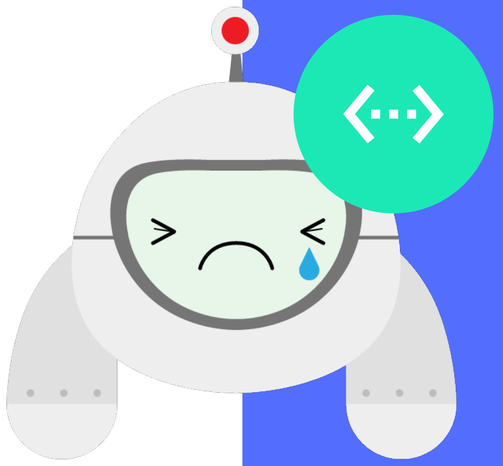
Controlling your Crawl

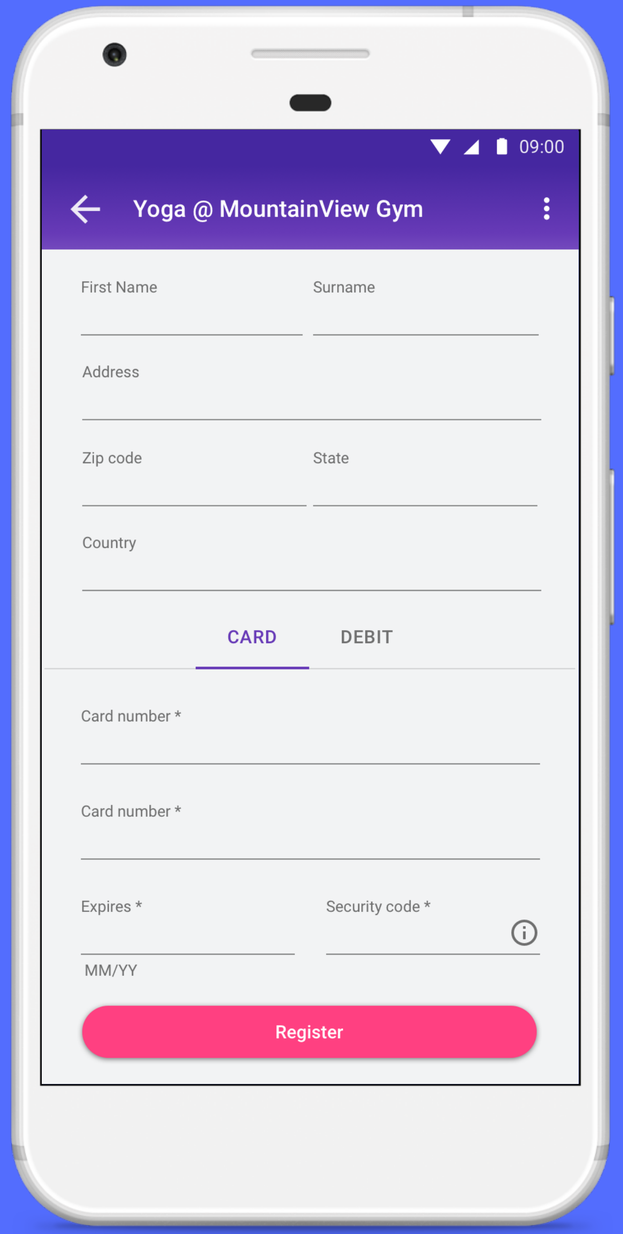
Deep Links



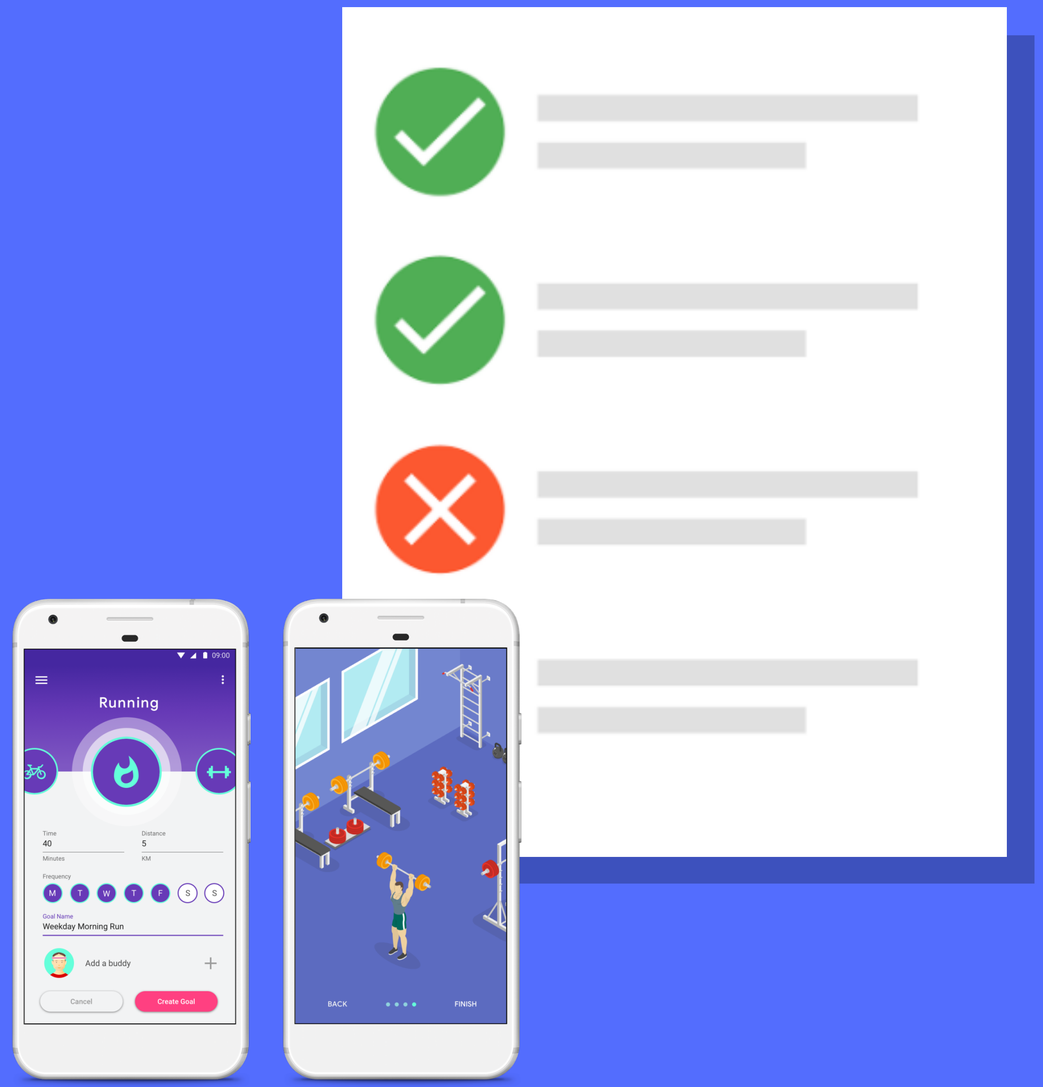
Controlling your Crawl

Robo Script

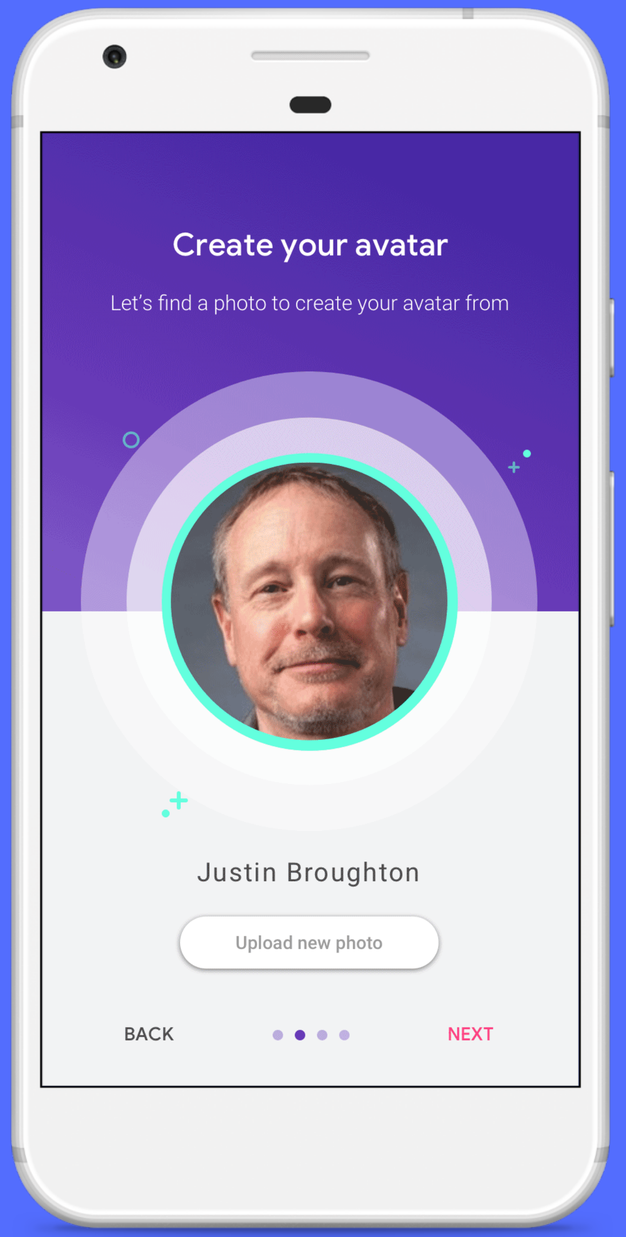


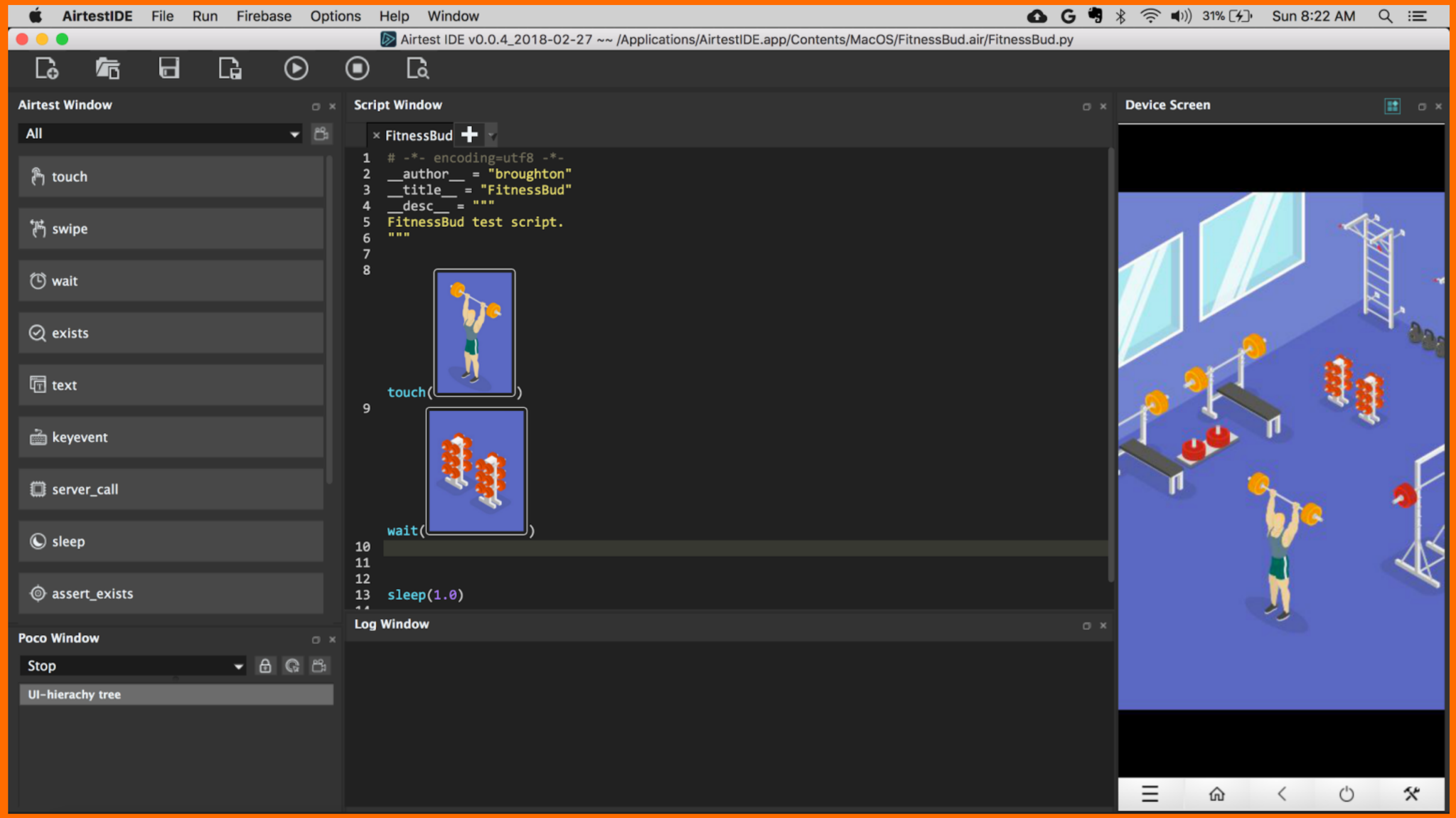


Creating Tests for Apps and Games



Demo Loops


Create your avatar
Let's find a photo to create your avatar from
Justin Broughton
Upload new photo
BACK
NEXT



AirTest

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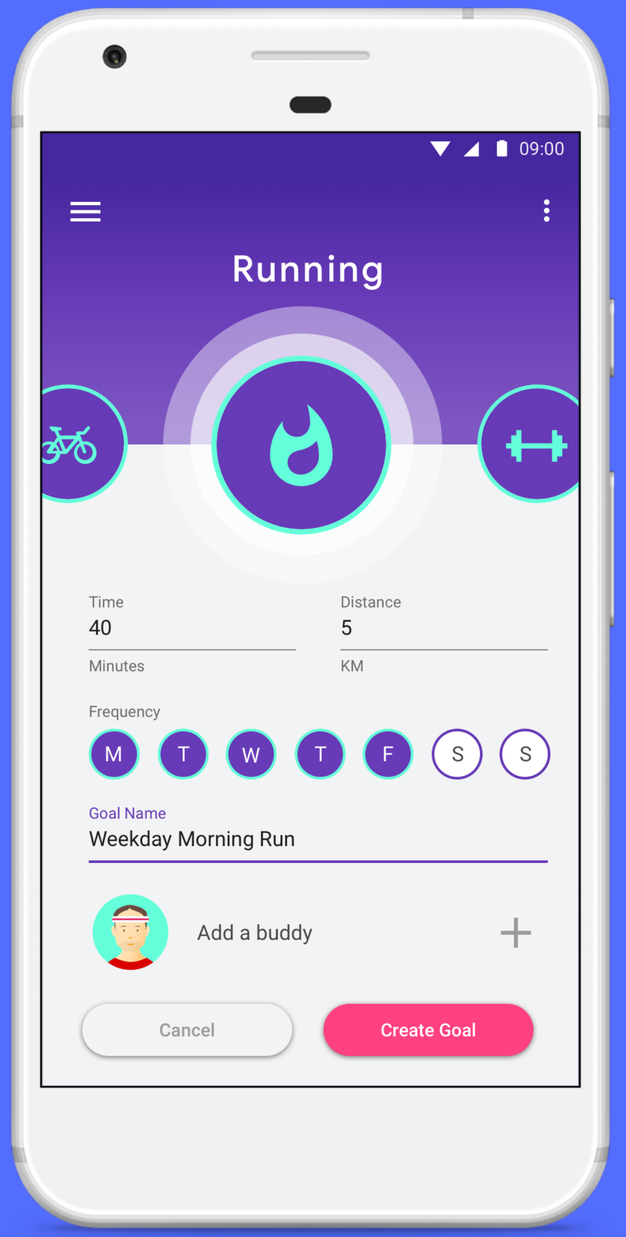
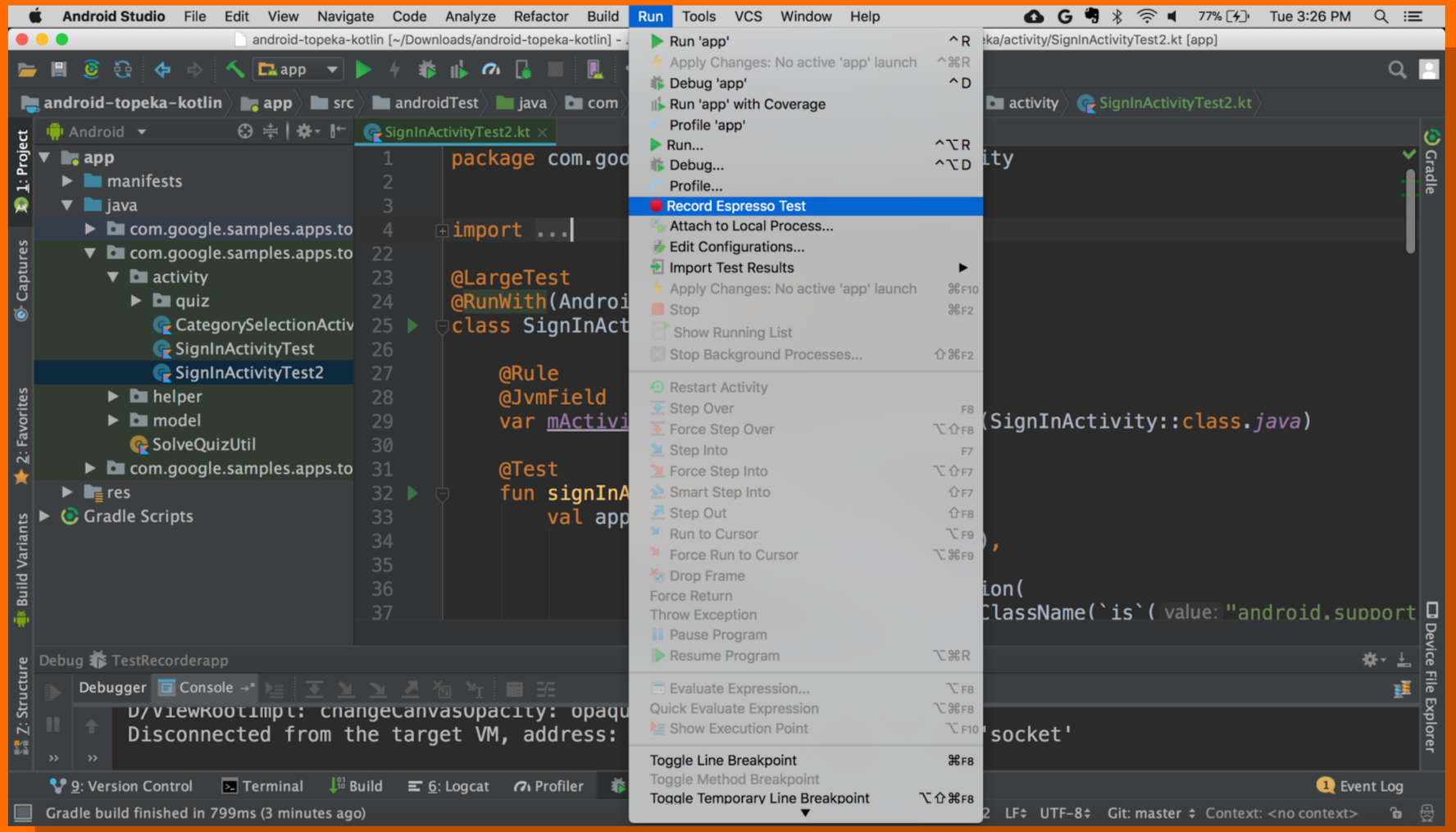
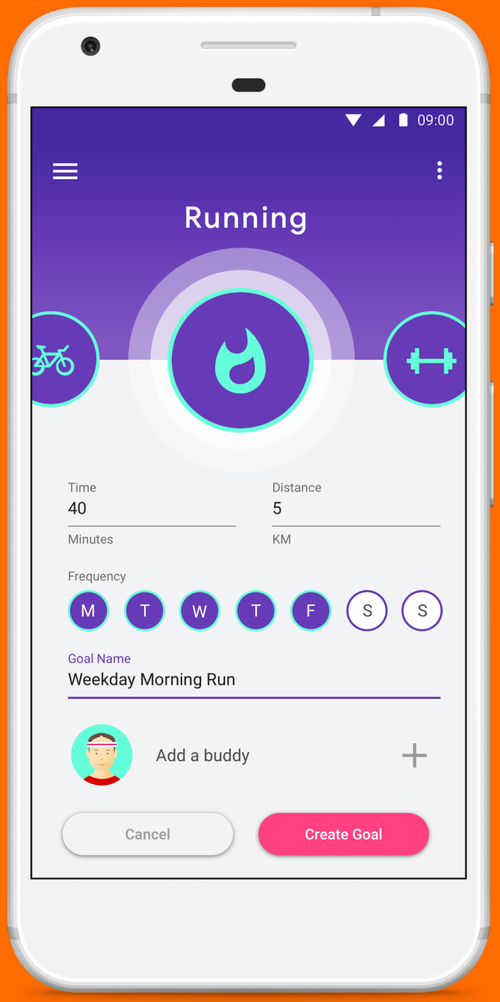
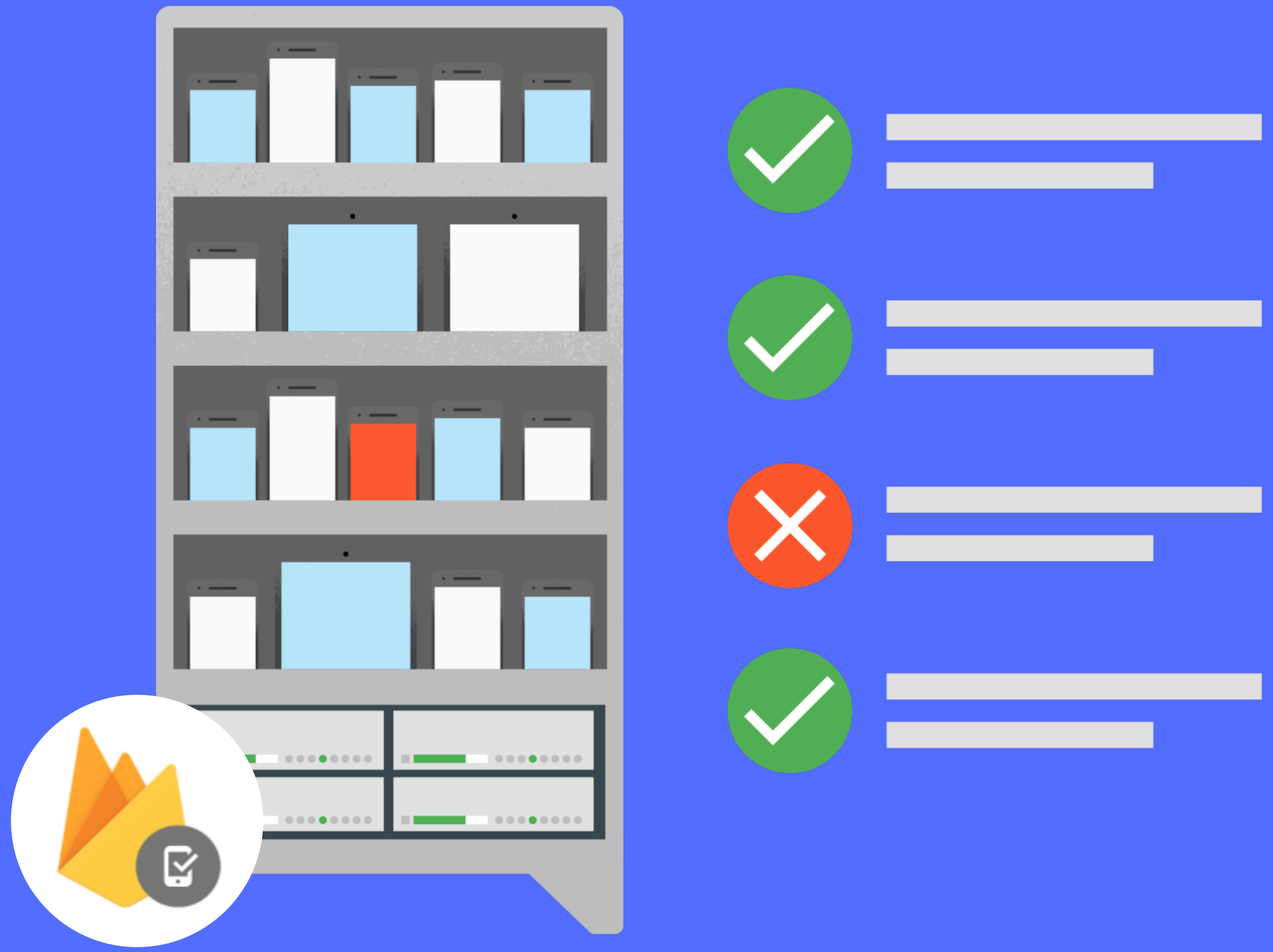
Instrumentation Tests



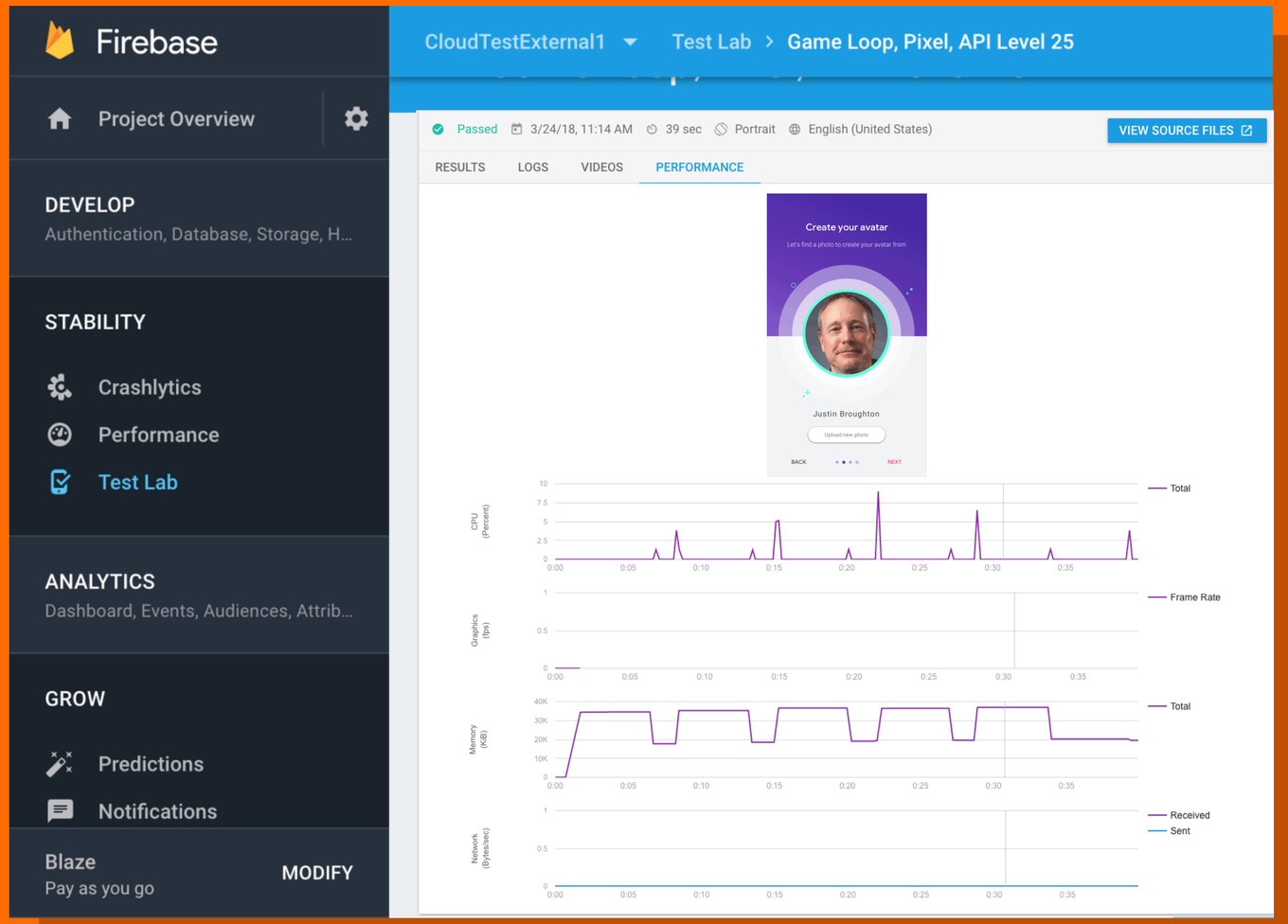




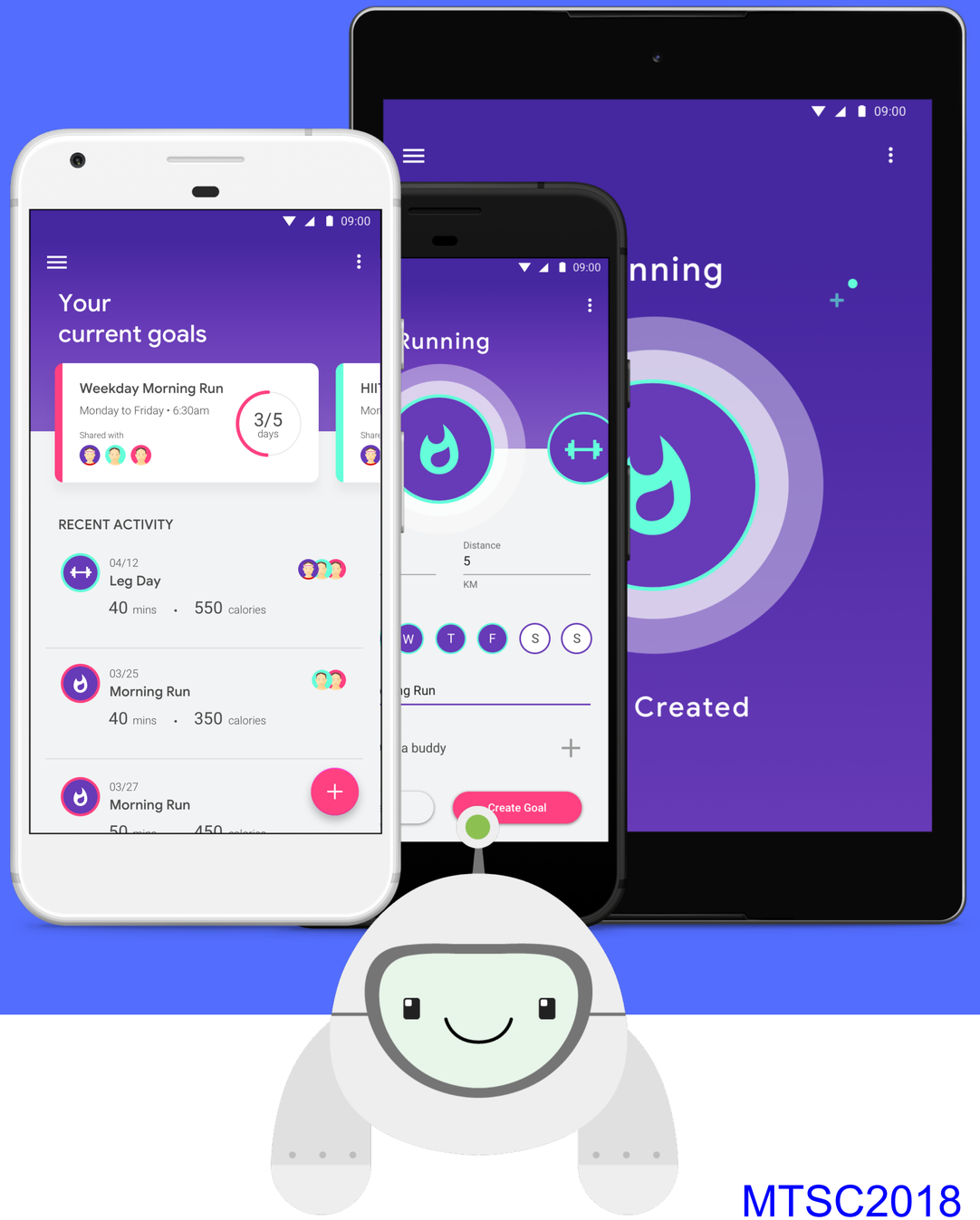
Espresso Test Recorder



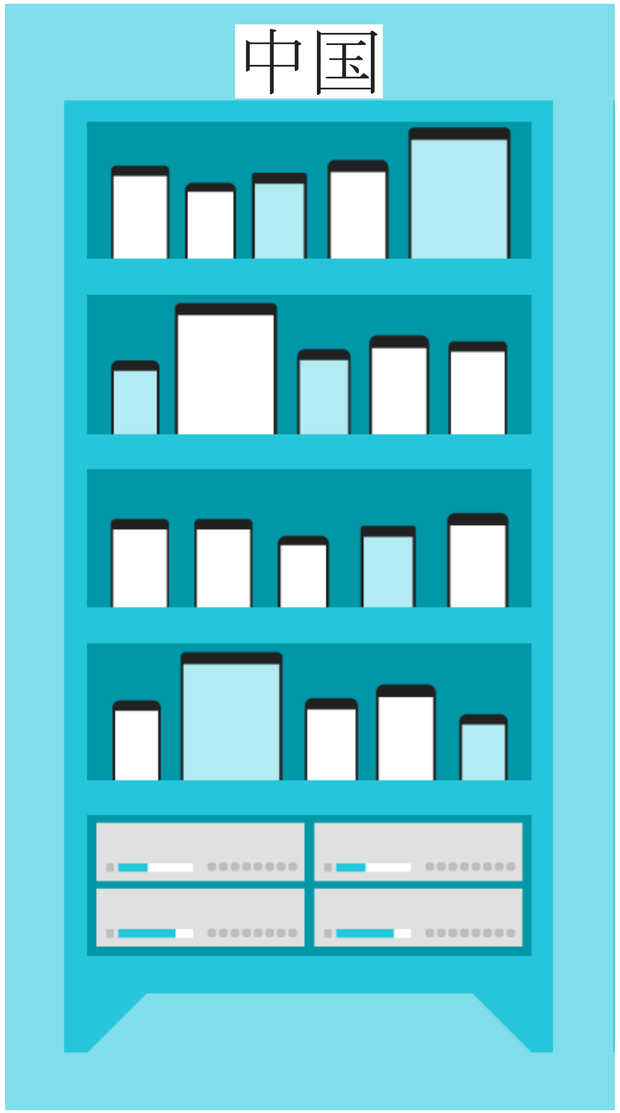
Firebase Test Lab

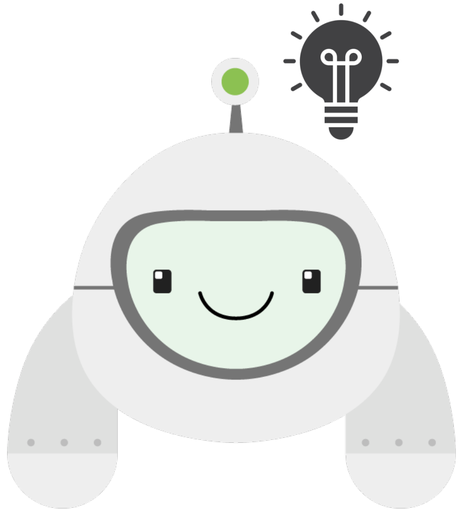


Comprehensive Test Results


09:00
Your
current goals
Weekday Morning Run
Monday to Friday • 6:30am
Shared with
3/5
days
RECENT ACTIVITY
04/12
Leg Day
40 mins • 550 calories
03/25
Morning Run
40 mins • 350 calories
03/27
Morning Run
Running
Distance
5
KM
W T F S S
Create Goal
Created

Summary





Future Plans