



ENIGMA

TEST AUTOMATION - PITCH

SUT - WEBMATE



- WHAT IS WEBMATE?

WEBMATE OFFERS TESTING INFRASTRUCTURE AS A SERVICE WITH A LARGE VARIETY OF REAL MOBILE DEVICES, OPERATING SYSTEMS, BROWSERS, AND MANY TOOLS THAT EASE THE DEVELOPMENT AND TESTING OF MOBILE AND WEB APPS.

A WIDE VARIETY OF BROWSERS AND OPERATING SYSTEMS FOR MANUAL TESTING AS WELL AS AUTOMATED TESTING, E.G. FOR CROSS-BROWSER LAYOUT-TESTING, IS AVAILABLE. OUR [WEB APPLICATION](#) OFFERS MOST OF WEBMATE'S FEATURES DIRECTLY IN THE BROWSER. FOR A DEEPER INTEGRATION INTO YOUR EXISTING DEVELOPMENT PIPELINE, WE OFFER JAVA AND TYPESCRIPT SDKS AND A [REST-API](#) WHICH CAN BE USED TO USE ALL FEATURES OF OUR SYSTEM DIRECTLY.

WEB INTERFACE ALSO USES REST API



Webmate interface showing the 'Devices' section. The top bar includes the Webmate logo, a dropdown menu set to 'ENGIMA', and a 'Configure your plan' button. The left sidebar contains navigation icons for home, settings, and search.

Devices

Filter ☐ Hide used slots [Apps](#) [Reservations](#)

Devices in Project 2 online / 0 queued

| | | | | |
|--|--------------------------------------------------|----------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------|
| | Galaxy A52 5G created Today at 5:09 PM | Public Device Slot no daily redeployment | running cannot be used by jobs | Access Details Delete Menu |
| | WINDOWS 11 created Today at 5:09 PM | Desktop Slot no daily redeployment | running cannot be used by jobs | Access Details Delete Menu |

Device Slots in Project 0 of 2 slots available

| | | | |
|--|--------------------|-----------------------------------------|----------------------------------------------|
| | Desktop Slot | WINDOWS 11 in this project | Details Menu |
| | Public Device Slot | Galaxy A52 5G in this project | Details Menu |

Chromium DevTools Network tab showing a REST API request. The 'General' tab is selected, displaying the following details:

General

- Request URL: `https://demo.webmate.io/api/v1/device/devices/baae9d6f-b8a5-4e7b-b941-dbcab3fec4bd/browsersessions`
- Request Method: GET
- Status Code: 200 OK
- Remote Address: 82.192.198.7:443
- Referrer Policy: strict-origin-when-cross-origin

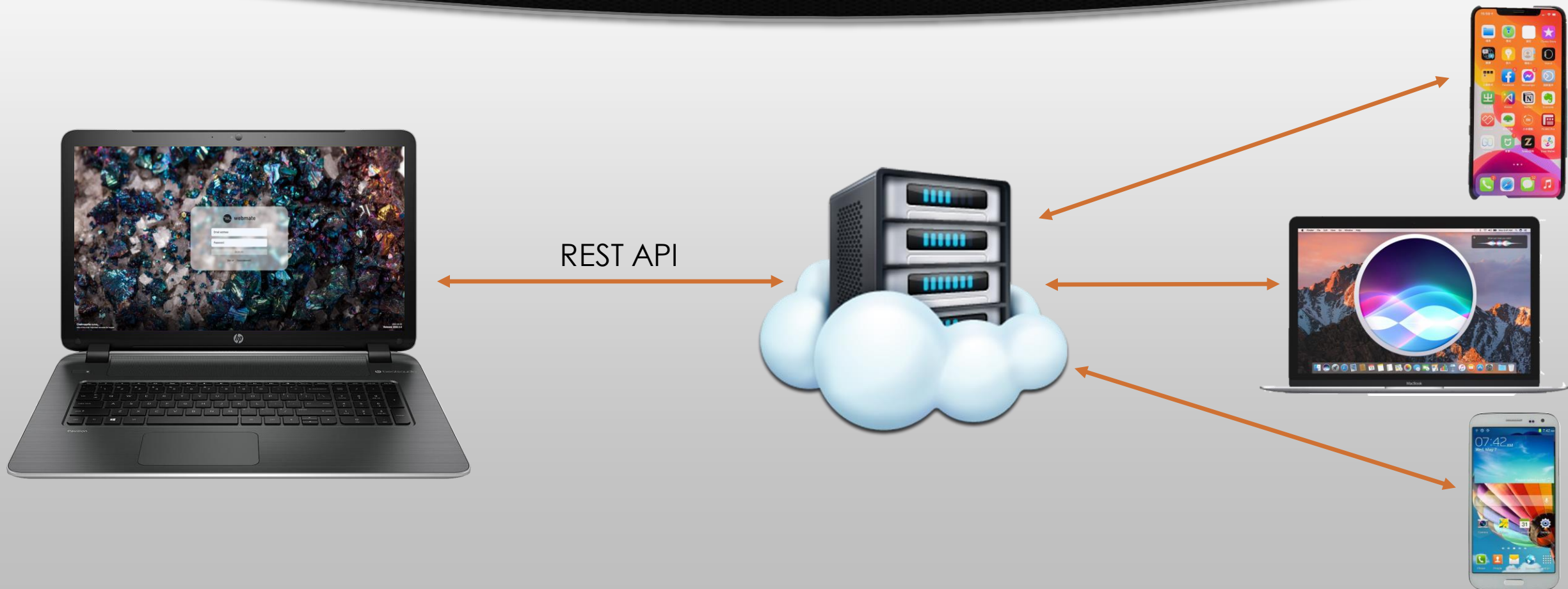
Response Headers

- content-length: 3
- content-type: application/json
- date: Wed, 12 Oct 2022 22:04:31 GMT
- server: nginx/1.18.0 (Ubuntu)
- trace-id: ecc65Sec52214544

Request Headers

- Accept: application/json, text/plain, */*
- Accept-Encoding: gzip, deflate, br
- Accept-Language: en-US,en;q=0.9,pt-PT;q=0.8,pt;q=0.7
- Authorization: Bearer d714d1f03635692c7851eb1d5c8aff1c
- Cache-Control: no-store
- Connection: keep-alive
- Cookie: onboarding-modal-shown=true; bf6e854c98bd972a2d5164d4a45c54cd=0c8d52e99f65adf8398880e30640da9; wmc-vcloudtestcenter-5-toggled=true; testlab-timefilter=pastday; testlab-groupby=session=false
- Host: demo.webmate.io
- Pragma: no-cache
- Referer: https://demo.webmate.io/
- sec-ch-ua: "Google Chrome";v="105", "Not(A)Brand";v="8", "Chromium";v="105"
- sec-ch-ua-mobile: ?0
- sec-ch-ua-platform: "macOS"
- Sec-Fetch-Dest: empty
- Sec-Fetch-Mode: cors
- Sec-Fetch-Site: same-origin
- User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/105.0.0.0 Safari/537.36

HOW TO ACCESS WEBMATE?



SCOPE



- GUI
 - DIFFERENT BROWSERS AND VERSIONS
 - MOBILE AND DESKTOP
 - CONSISTENCY AND RELIABILITY CHECKS
 - ACCESSIBILITY (MANUAL TESTING)
- REST API
 - ENDPOINT CONSISTENCY (AUTHENTICATION VIA TOKEN ONLY)
 - STATUS CODE
 - RESPONSE PAYLOAD
 - RESPONSE HEADERS
 - BASIC PERFORMANCE SANITY
- E2E
- EXPLORATORY (MANUAL TESTING)
- NEGATIVE TESTING

SCHEDULE



- THE TESTING WILL BE DONE BETWEEN 12TH AND 14TH OF OCTOBER 2022 AS PART OF THE TEST AUTOMATION CHALLENGE



RESOURCES



- FOR THIS CHALLENGE WE HAVE A TEAM (ENIGMA) OF 4 AGILE AUTOMATIONS TESTERS ALLOCATED
- DUE TO THE NATURE OF THIS CHALLENGE, 2 TESTERS WILL BE MORE FOCUSED ON AUTOMATION, WHILE OTHER 2 ARE FOCUSED ON TEST PLANNING/MANAGEMENT
- RESOURCES:
 - JOÃO MATOS
 - MARCO SILVEIRA
 - MARCO PINHO
 - RICARDO ANDRADE



TEST SCENARIO GROUPS



- OUR TEST CASES FALL INTO THE FOLLOWING GENERAL *TEST SCENARIO* GROUPS:
 - BASIC POSITIVE TESTS (HAPPY PATHS)
 - EXTENDED POSITIVE TESTING WITH OPTIONAL PARAMETERS
 - NEGATIVE TESTING WITH VALID INPUT
 - NEGATIVE TESTING WITH INVALID INPUT
 - DESTRUCTIVE TESTING
 - SECURITY, AUTHORIZATION, AND PERMISSION TESTS, LOAD AND PERFORMANCE (WHICH ARE OUT OF THE SCOPE OF THIS CHALLENGE)

TOOLS: WHY CYPRESS?



- CYPRESS IS A NEXT GENERATION FRONT END TESTING TOOL BUILT FOR THE MODERN WEB
- CYPRESS IS MOST OFTEN COMPARED TO SELENIUM: THIS ENABLES YOU TO **WRITE FASTER, EASIER AND MORE RELIABLE** TESTS.
- CYPRESS ENABLES YOU TO WRITE ALL TYPES OF TESTS:
 1. END-TO-END TESTS
 2. INTEGRATION TESTS
 3. COMPONENT TESTING
 4. UNIT TESTS
- THE POSSIBILITY TO INTEGRATE BDD TECHNIQUES (WHICH WE WILL USE)
- IT HAS CONTINUOUS SUPPORT AND A NEW VERSION RELEASED EVERY TWO WEEKS.
- ALSO THROUGH A LARGE NUMBER OF OFFICAL AND 3RD PARTY PLUGINS YOU CAN EXTEND THE CYPRESS CAPABILITIES TO THE NEXT LEVEL, QUITE EASILY.



TOOLS: WHY GHERKIN?



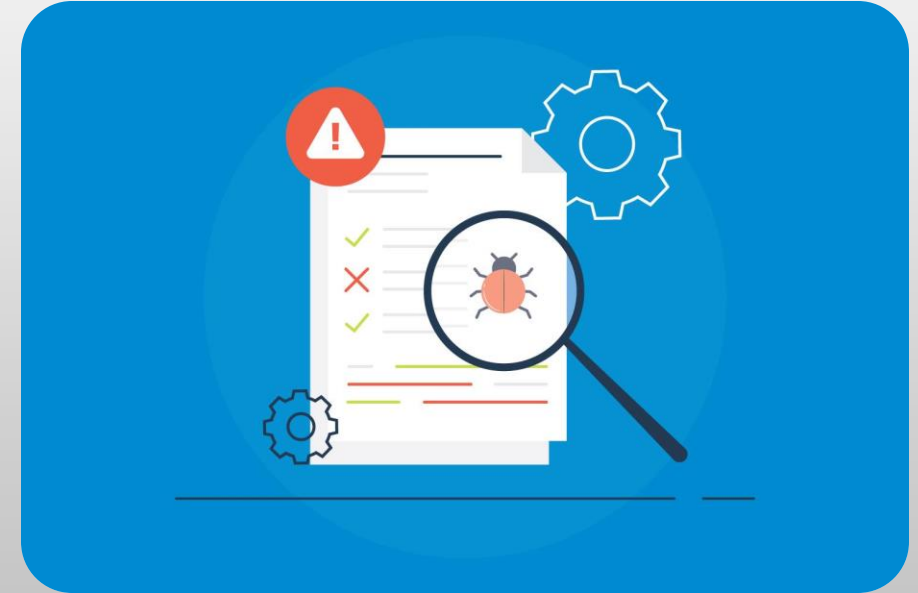
- GHERKIN IS A LANGUAGE THAT DEVELOPERS USE **TO DEFINE TESTS IN CUCUMBER**. SINCE THIS LANGUAGE USES PLAIN ENGLISH, IT'S MEANT TO DESCRIBE USE CASES FOR A SOFTWARE SYSTEM IN A WAY THAT CAN BE READ AND UNDERSTOOD BY ALMOST ANYONE
- THERE ARE THREE MAIN GOALS THAT WE TRY TO KEEP IN MIND WHEN WRITING SCENARIOS:
 - SCENARIOS SHOULD BE THOUGHT OF AS DOCUMENTATION, RATHER THAN TESTS.
 - SCENARIOS SHOULD ENABLE COLLABORATION BETWEEN BUSINESS AND DELIVERY, NOT PREVENT IT.
 - SCENARIOS SHOULD SUPPORT THE EVOLUTION OF THE PRODUCT, RATHER THAN OBSTRUCT IT.
- **BRIEF → KEEP SCENARIOS SHORT (LESS THAN 6 STEPS)**
 - **B**USINESS READABLE
 - TERMINOLOGY DRAWN FROM BUSINESS DOMAIN
 - **R**EAL DATA
 - USE CONCRETE DATA FOR CLARITY
 - **I**NTENTION REVEALING
 - REVEAL INTENT, DON'T DESCRIBE MECHANICS
 - **E**SSENTIAL
 - REMOVE INCIDENTAL DETAILS
 - **F**OCUSED
 - EACH SCENARIO ILLUSTRATES A SINGLE RULE (ACCEPTANCE CRITERIA)



TOOLS: BUG REPORTING



- DUE TO TIME RESTRICTIONS WE WILL USE EXCEL AS OUR BUG REPORTING TOOL
 - TITLE
 - SEVERITY AND PRIORITY
 - DESCRIPTION
 - ENVIORNMENT
 - REPRO STEPS
 - ACTUAL/EXPECTED RESULTS
 - ATTACHMENTS



TOOLS: TEST MANAGEMENT



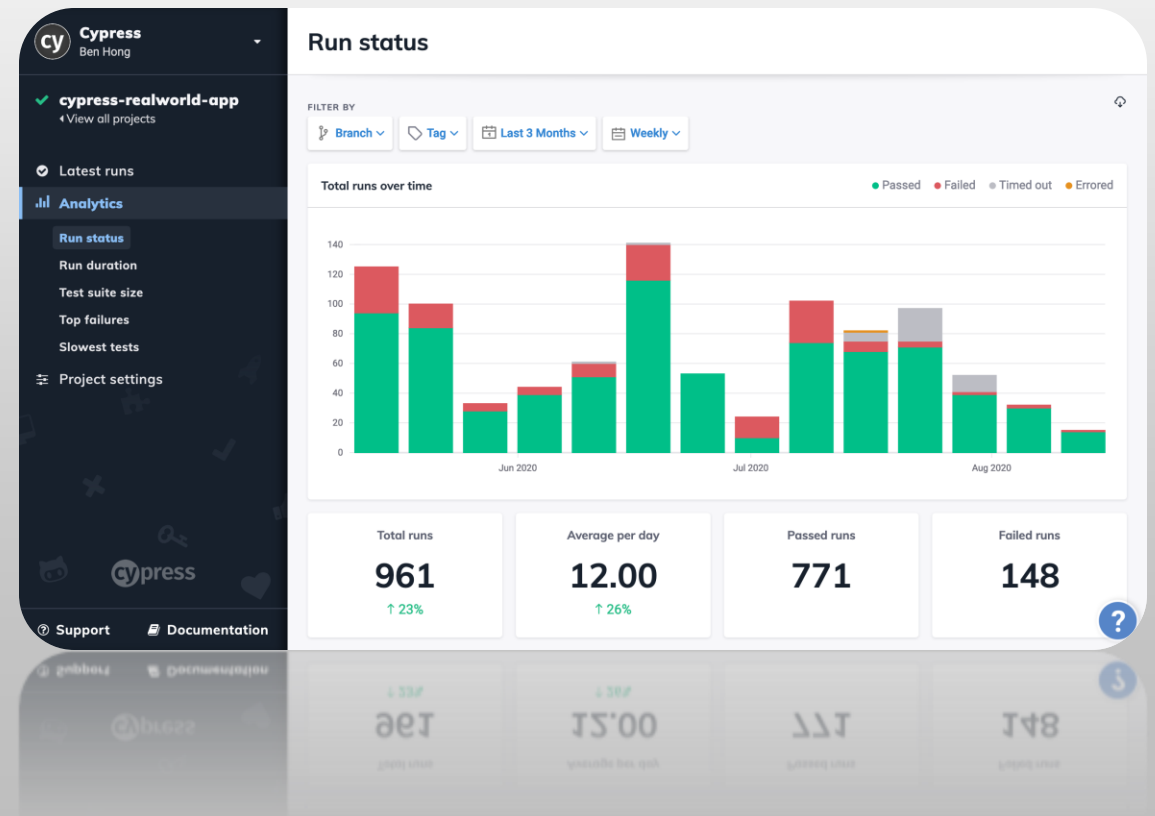
- DUE TO TIME RESTRICTIONS WE WILL USE EXCEL AS OUR TEST MANAGEMENT TOOL

| Process | Test case | Status | Expected result | Actual result |
|-----------------|-----------------|--------|--------------------------|---------------|
| Logistics | Delivery | 1 | create delivery | created |
| | | | nted successfully | form didn't p |
| | | | nted successfully | |
| | | | erwarder informed | |
| Accounting | Billing process | | picked up | |
| | | | und delivery | |
| | | 4 | Send invoice to customer | |
| | | | Create open item in 40 | |
| Customer master | | | open | |
| | | | | onization |

TOOLS: REPORTING



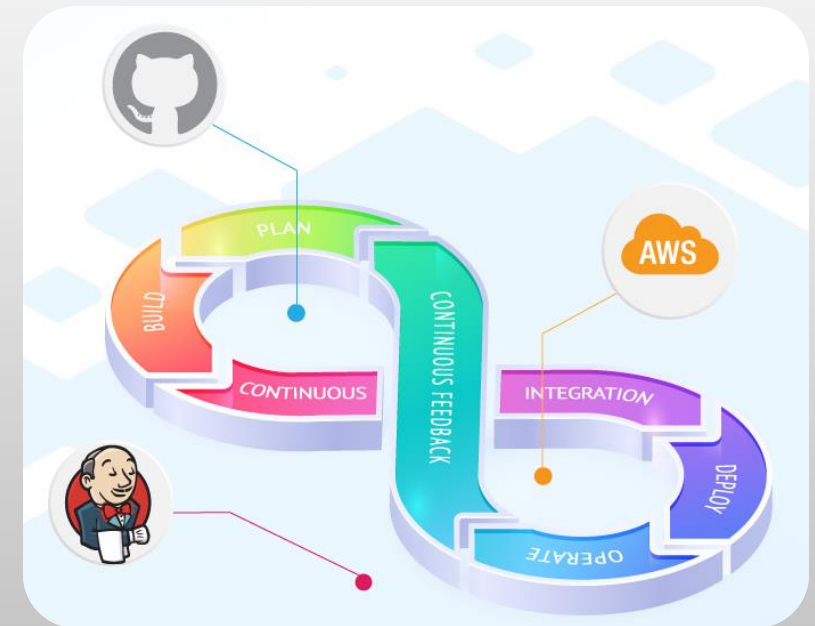
- DUE TO TIME RESTRICTIONS WE WILL USE THE REPORTING CAPABILITY FROM CUCUMBER/CYPRESS DASHBOARD



CI/CD



- CYPRESS IS EASILY INTEGRATED WITH GITHUB CI/CD



RISK MANAGEMENT



- HIGHEST IDENTIFIED RISKS ARE:
 - THE EXISTENCE OF A HARD CUT-OFF ON OCT 14TH (TIME)
 - LACK OF FUNCTIONAL REQUISITES
 - LACK OF KNOWLEDGE ON THE SUT
- MITIGATION ACTIONS:
 - TESTING AREAS WHICH ARE OUT OF SCOPE :
 - SECURITY, AUTHORIZATION, PERMISSION TESTS, LOAD AND PERFORMANCE



TESTING ENVIRONMENT



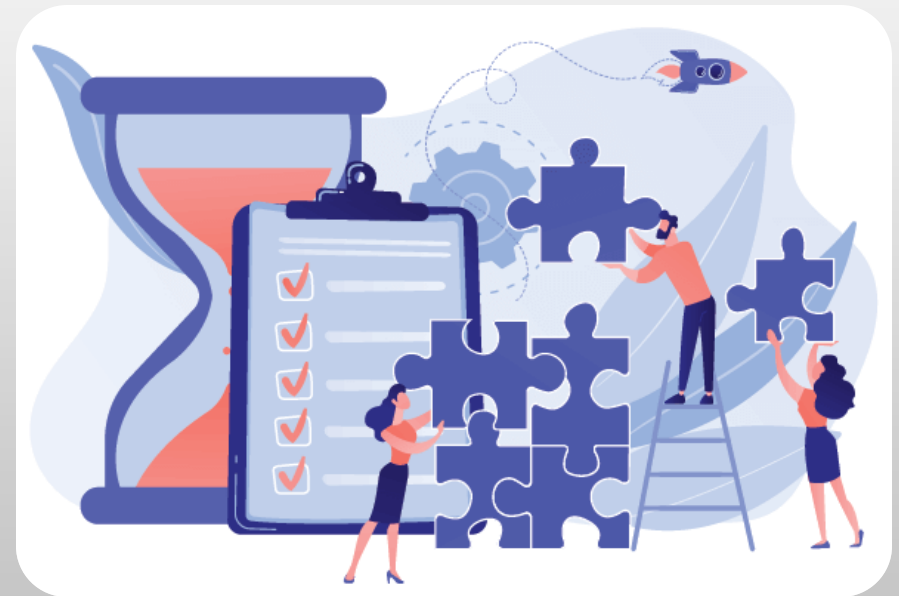
- ALL TESTS WILL BE RUN AGAINST:
 - RELEASE 2022.3.0 (2022-09-06)



TEST DELIVERABLES



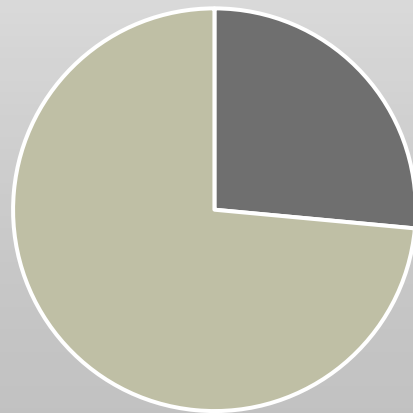
- TEST PLAN (THIS DOCUMENT)
 - [KNOWN ISSUES](#) (ADDED)
- TEST DESIGN
 - LINK TO EXCEL IN GITHUB – https://github.com/ENIGMASTEAM/TEST-AUTOMATION-CHALLENGE/blob/develop/deliverables/TESTMANAGEMENT_ENIGMA.XLSX
- TEST SCRIPTS PUBLISHED IN PUBLIC GITHUB REPOSITORY
 - GITHUB - <https://github.com/ENIGMASTEAM/TEST-AUTOMATION-CHALLENGE>
- LIST OF FOUND BUGS
 - LINK TO EXCEL IN GITHUB - https://github.com/ENIGMASTEAM/TEST-AUTOMATION-CHALLENGE/blob/develop/deliverables/DefectManagement_%20ENIGMA.XL
- TEST RESULTS
 - CYPRESS DASHBOARD - [RUN STATUS \(CYPRESS.IO\)](#)



RESULTS ACHIEVED

| Title | Number |
|-----------------------|--------|
| Total number of Tests | 179 |
| Tests Automated | 48 |
| To be automated | 131 |

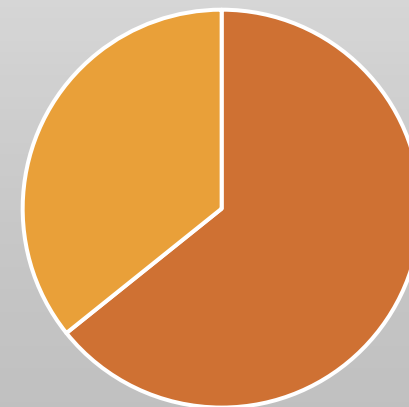
Automation Coverage



■ Tests Automated ■ To be automated

| Title | Number |
|-----------------------|--------|
| Total number of Tests | 179 |
| GUI Tests | 115 |
| API Tests | 64 |

Ratio GUI/API



■ GUI Tests ■ API Tests

KNOWN ISSUES



- ONLY TESTS TAGGED AS "PARALLEL" WILL RUN ALWAYS
 - FOR DEVICE MANAGEMENT TESTING, ALL DEVICES ARE CLEANED BEFORE TESTS.
- DEVICE CREATION ONLY DONE USING BRAND AND/OR TYPE FILTERING
 - COULD ALSO BE SW_VERSION, BROWSER VERSION, ETC
- CYPRESS HAS A LIMITATION ABOUT MULTI-TABS, SO NO DEVICE ACCESS/INTERACTION CURRENTLY
 - WA IS POSSIBLE WITH ADMIN RIGHTS AND/OR BETTER SUT INSIGHT (WE NEED MORE INFO TO BE ABLE TO ENCODE THE NECESSARY INFO AS BASE64, AND WE ARE MISSING ONE INFORMATION)

LIVE DEMO



QUESTIONS

