# Question 1

*NOTE: This test it's about your experience, so we encourage you to use it in this test.*

This exercise consists in suggesting a plan to deal with a (not real, but plausible) challenging situation in a startup environment. Do not hesitate to add any assumption you need, just justify it.

**Big Picture Context**

- You work as a QA Engineer for ManoMano company.
- You serve different features teams (aka squads) and help them in testing activities. The development teams you serve work an iteratively and incrementally way.
- They are used to deliver new software releases every two weeks.

**Specific Context**

- The squad is composed of five developers, one SRE, one IT Lead, one Product Manager and you.
- The team feels safe because you find a lot of bugs and you are a defensive line before going to production.

**Other relevant information:**

- The QA manager, aligned with the CTO and the CPO, wants to change the way the company provides value to the customer. To do that, they agree on the need to deliver new software releases on a daily basis (web frontend and backend).
- They expect to accomplish the daily basis releases in no longer than 3 months, to keep the business ahead of the competitors.
- As you are an experienced QA, the QA manager asks you for a plan to achieve the expected output.

**CHALLENGE: Assuming this challenging situation, could you provide us with the 2 - 3 main points you would choose to start implementing the QA plan to accomplish the expected output? Describing why selecting them in the simplest (2 lines maximum per point) way.**

*We will evaluate having in mind the requirement of 1hour for the two exercices:*

- How you move forward the plan and how you define the first priority steps of it.

- How you justify the selection of the above 2 or 3 mentioned points

1.- Model shift to left

Adapt the workflow and methologies into model shift left to prevent and identify early the bugs and reduce the time to market.

2.- Use pyramid testing

Priorice first the unit test, integration and system test

3.- CI/CD

Make a CI/CD which following the next QA processes:

- PR Verify to check if the code cointains bugs
- Define pipeline QA that launch the next processes:
- Unit test to assure that the code works
- Sonarcheck
- Integrated test with Karate for the API service
- Contract test with Pact for microservices

When plan of QA finish and if all processes are pass, the next step would be:

- Deploy a virtual environment with Dockers to execute E2E test with Cypress for example

If the E2E are passed then should merge the current Branch to master and desploy the release to Production environment.

With this model we assure that for every feature developed, must pass all the kind functional test before the deploy the reléase in production.