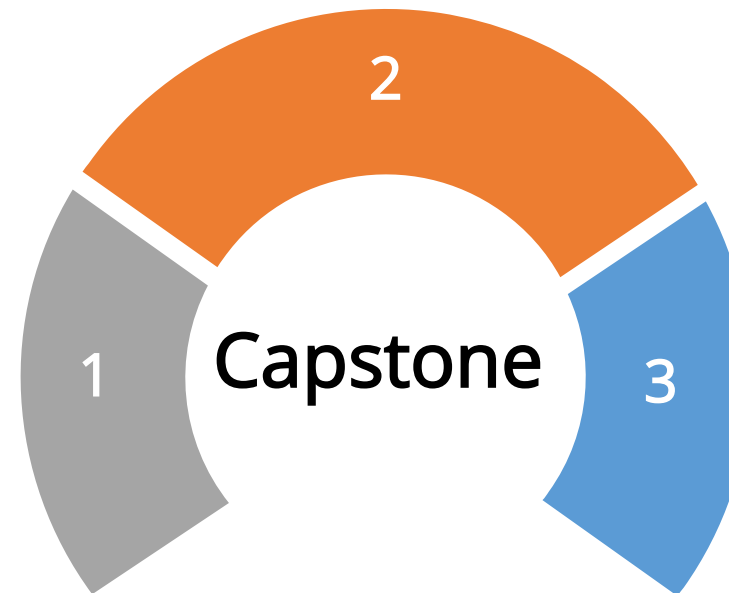Capstone Project

Introduction

A capstone project is a major project that aims to deliver end-to-end functionality of a business application.

Multiple technologies
Every stage of a capstone project can be implemented with different technologies and frameworks present for the operations.

2

Multi-level
It is a multi-level project with different stages, such as back-end, front-end, automation, and DevOps, depending on the technology.

1

Capstone

3

Scalable
Due to its dynamic nature, it is built around various domains and business use cases that make it scalable.

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Medicare

Agenda:

Develop a comprehensive QA and test environment for an online medicine purchasing website and automate the whole testing process.

This QA and test environment should be inclusive of the following testing layers:

- Browser-based end user testing
- Unit testing for back-end elements of the website
- API testing on cloud
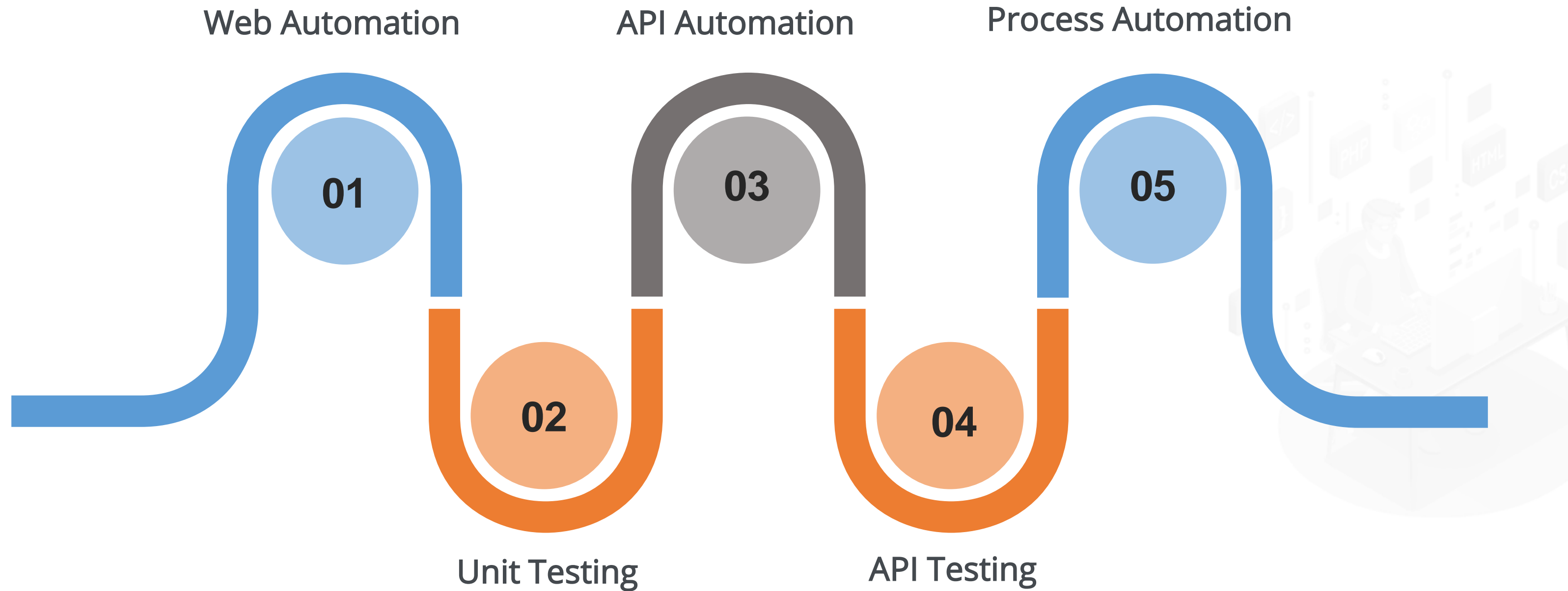- Automating the whole testing process
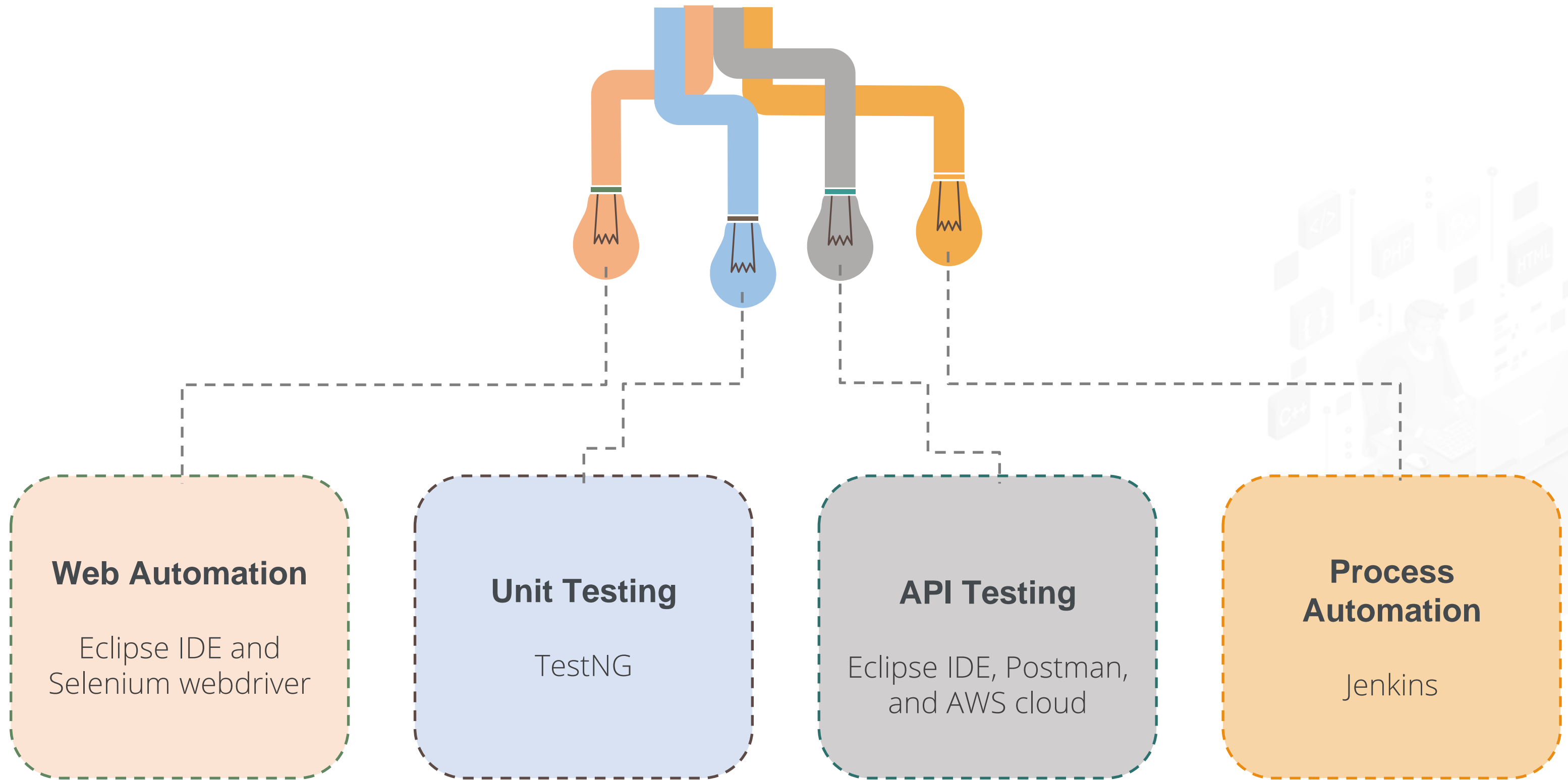
Medicare

Background of the project:

Medicare is a company that supplies medicines and a couple of other healthcare essentials at an affordable price. It was established in 2012 in Delhi, India.

- The admin portal deals with all the back-end data generation and product information.
- The admin portal adds, removes, and edits medicine details from the application to build a rich product line.
- The admin portal enables or disables a product.
- The end user is able to log in and register for the application.
- The end user searches for products.
- The end user can apply filters and sort results based on different parameters to get the best deals and add it to the cart and complete the purchase.
- The end user receives an order summary details page once the payment is complete to make the necessary arrangements.

Project Development Flow

Web Automation

API Automation

Process Automation

01

03

05

02

04

Unit Testing

API Testing

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Technologies

Web Automation

Eclipse IDE and Selenium webdriver

Unit Testing

TestNG

API Testing

Eclipse IDE, Postman, and AWS cloud

Process Automation

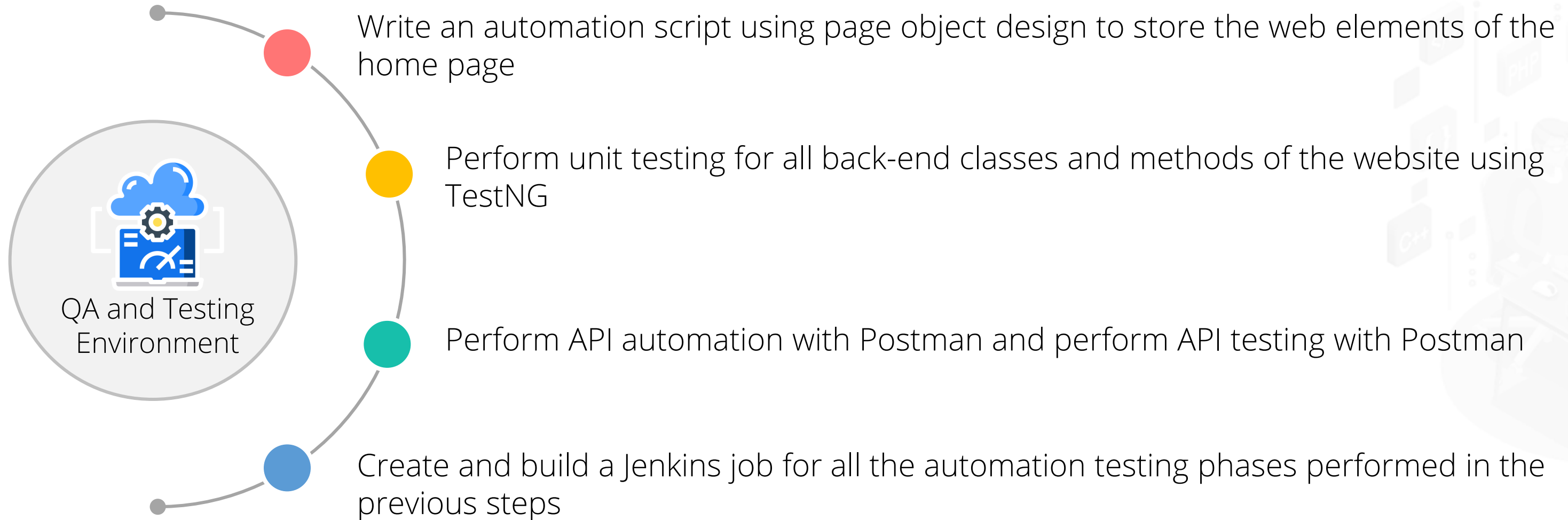Jenkins

Required Testing Layers

Below are the key responsibilities and functionalities to be implemented in the QA and testing environment:

QA and Testing Environment

Write an automation script using page object design to store the web elements of the home page

Perform unit testing for all back-end classes and methods of the website using TestNG

Perform API automation with Postman and perform API testing with Postman

Create and build a Jenkins job for all the automation testing phases performed in the previous steps

Thank You