SINGLE PAGE ——— APPLICATION

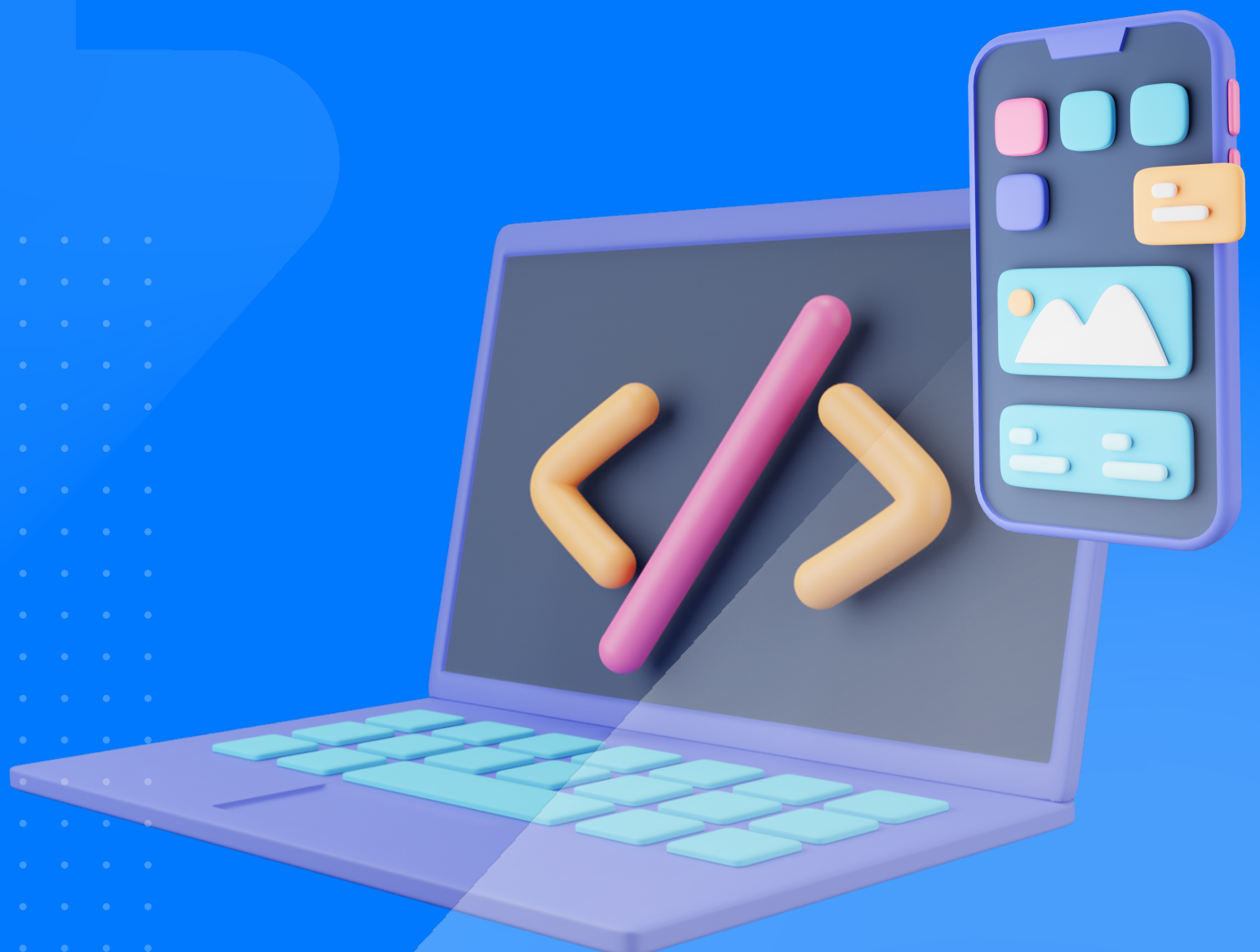**TUESDAY 24 MAY**
10.30 AM - 12.00 AM

Webinar on the evolution of single page applications and development technologies in today's software market, presented by the CEO of Lasting Dynamics, 1st Italian software house and top 50 in Europe.

SPEAKER

Michele Cimmino
CEO @ Lasting Dynamics Group

LASTING DYNAMICS

SPA vs. MPA

Main differences, refutations and what to choose

MICHELE CIMMINO

FULL STACK DEVELOPER

Speaker

Name **Michele Cimmino**

Age: **32 years**

Role: **Chief Executive Officer**

Company: **Lasting Dynamics SRL, SLU, Nordics AS**

Background: **Soft. Architect & Full Stack Developer**

"Homo Faber Fortunae Suae"

"It all started between the desks of the study rooms and empty classrooms of the Monte Sant'Angelo complex, where I studied computer science, formalizing my knowledge gained up to then as a passionate and self–taught web programmer.

I still remember the first freelance project I worked on while continuing my studies: while I was preparing to take exams in computer engineering, databases, and web technologies, in the afternoon I developed web and mobile applications for Northern European clients trying to involve my classmates who over the years have become employees of what would become the first Software House in Italy in 2020 and top 50 in Europe still today. "
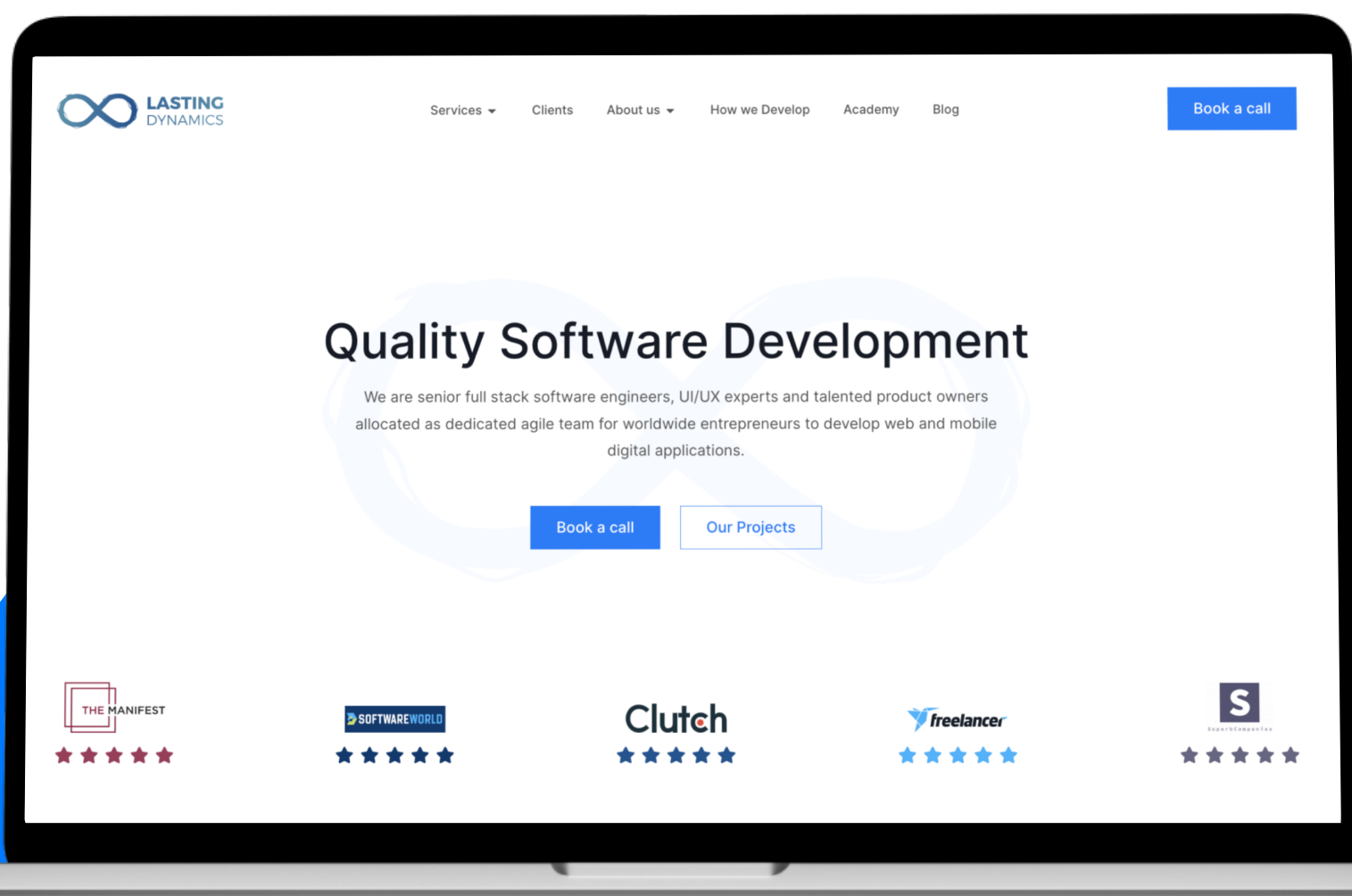
NewYorkTimes vs. Material UI

A look at the websites
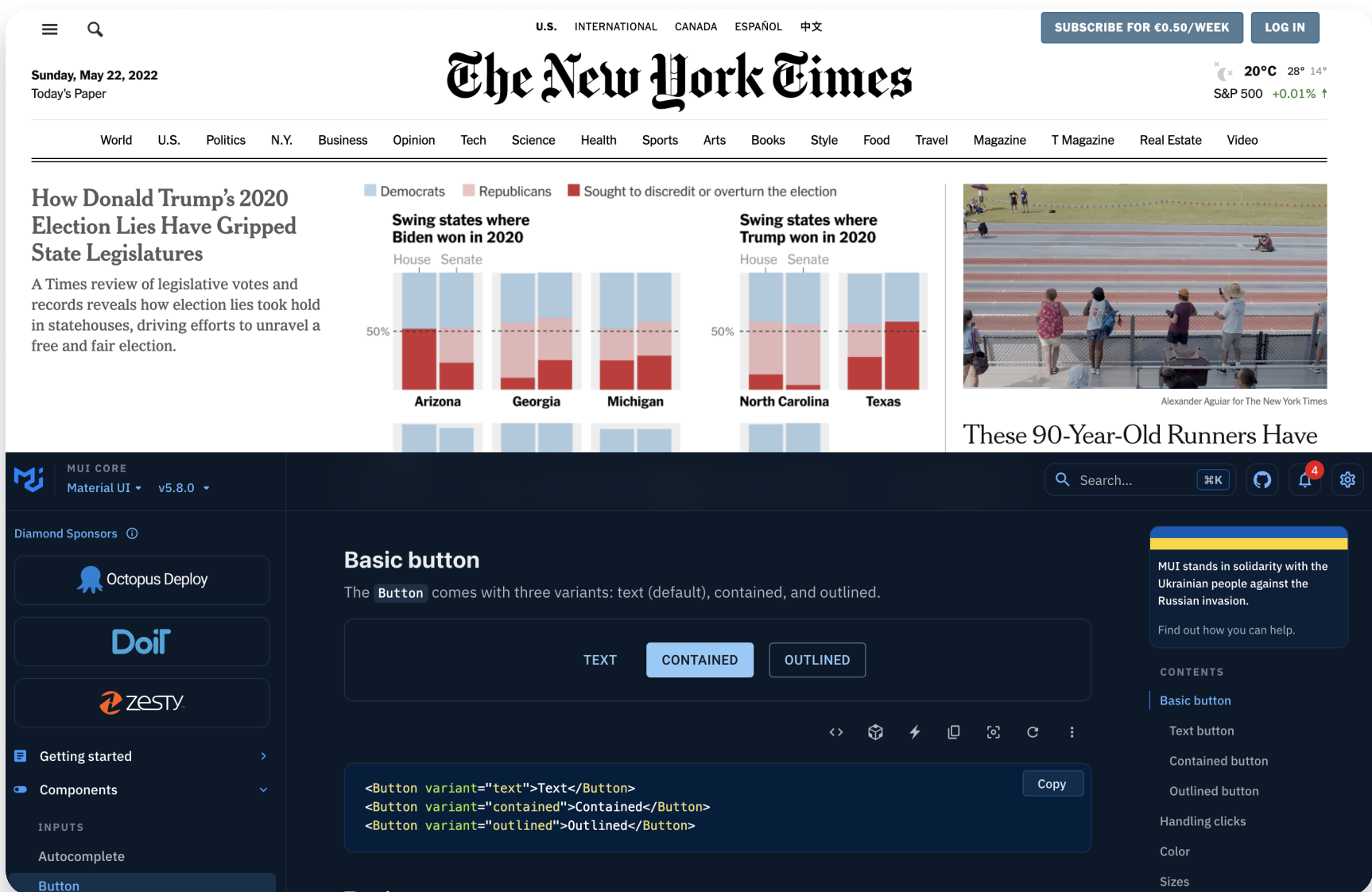
www.nytimes.com is a multi–page application while mui.com – component library for React.js – is a site developed with a single–page architecture.

How to recognize SPA and MPA?

1. Look carefully at the "reload" arrow at the top left next to your browser's URL bar. As you can see at the change of page, in the MPA the icon will change showing an X to cancel the loading, while in the SPA this does not happen.

2. By inspecting the page and clicking on the network tab, it will be possible to highlight HTTP requests that return HTML for page routing in the MPAs, while in the SPAs it will be possible to highlight re-rendering of only some parts of the DOM.

Only one architectural difference... several implications

Almost all junior developers starting to take their first steps in the world of web and mobile development are particularly confused about what SPA and MPA mean.

When asked "what are the main differences" between the two architectures, the answers usually turn out to be related to: performance, routing, rendering, frameworks/libraries used, and page reload. Does all this really describe the differences?
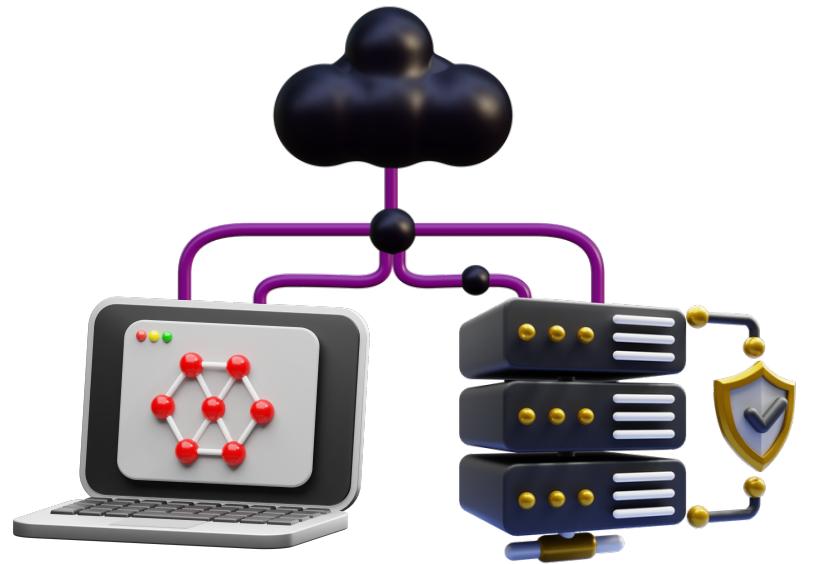
Single Page Application

A SPA is a web application with client-server architecture that at the first upload makes an HTTP request to the server which will return a series of assets and javascript and a minimal HTML structure (usually only the root node).
The client (browser) will take care of interpreting and rendering the DOM via javascript.
Each subsequent request will use AJAX technology to query an API capable of returning data in JSON, XML, or whatever format.
The client from then on will mainly perform DOM manipulation.

Multipage Application

An MPA, on the other hand, makes a new HTTP request to the server every time the page address is changed (routing).
The server takes care of returning an HTML page whose structure will have to be interpreted by the client to replicate the DOM structure.
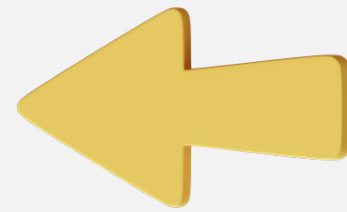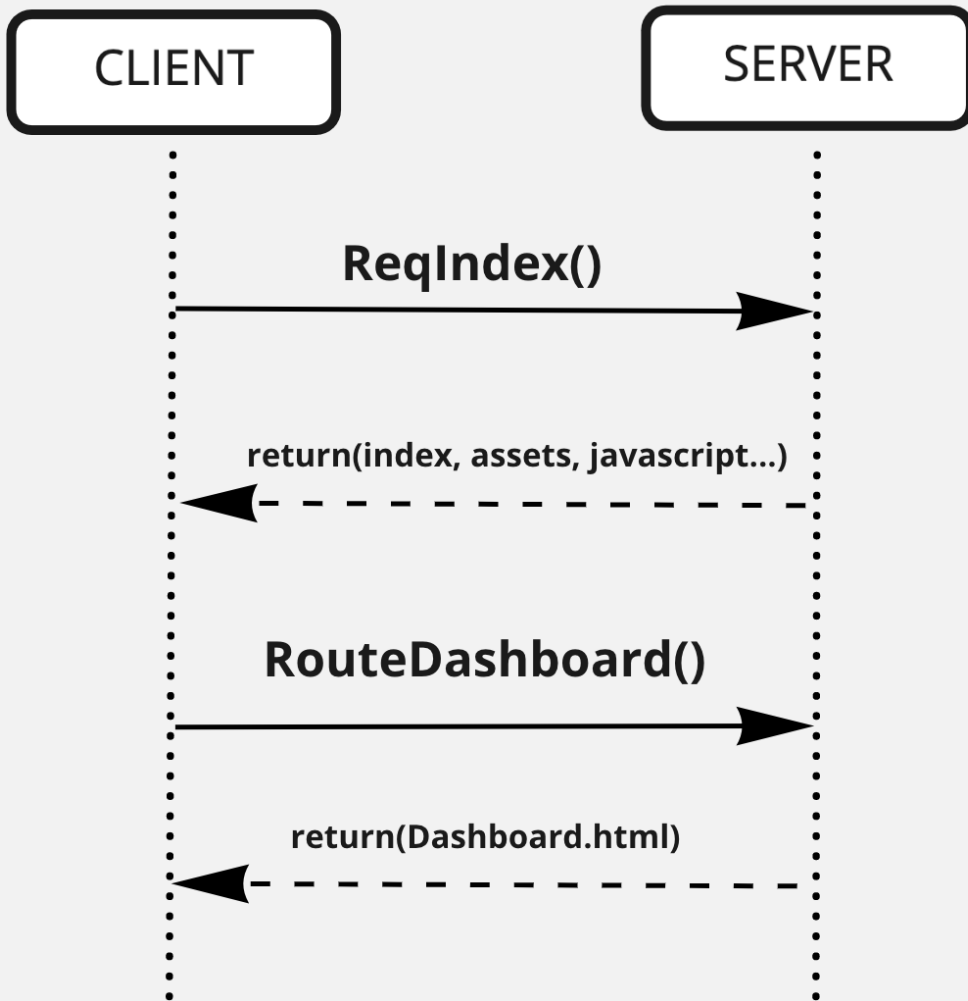The new generation browsers are able to compare the differences and avoid a full re-rendering of the DOM, but given the asynchronicity of the interaction an additional loading time will always be necessary.

So which of the usual answers are wrong?

Try to answer now!

Sequence Diagram

MPA
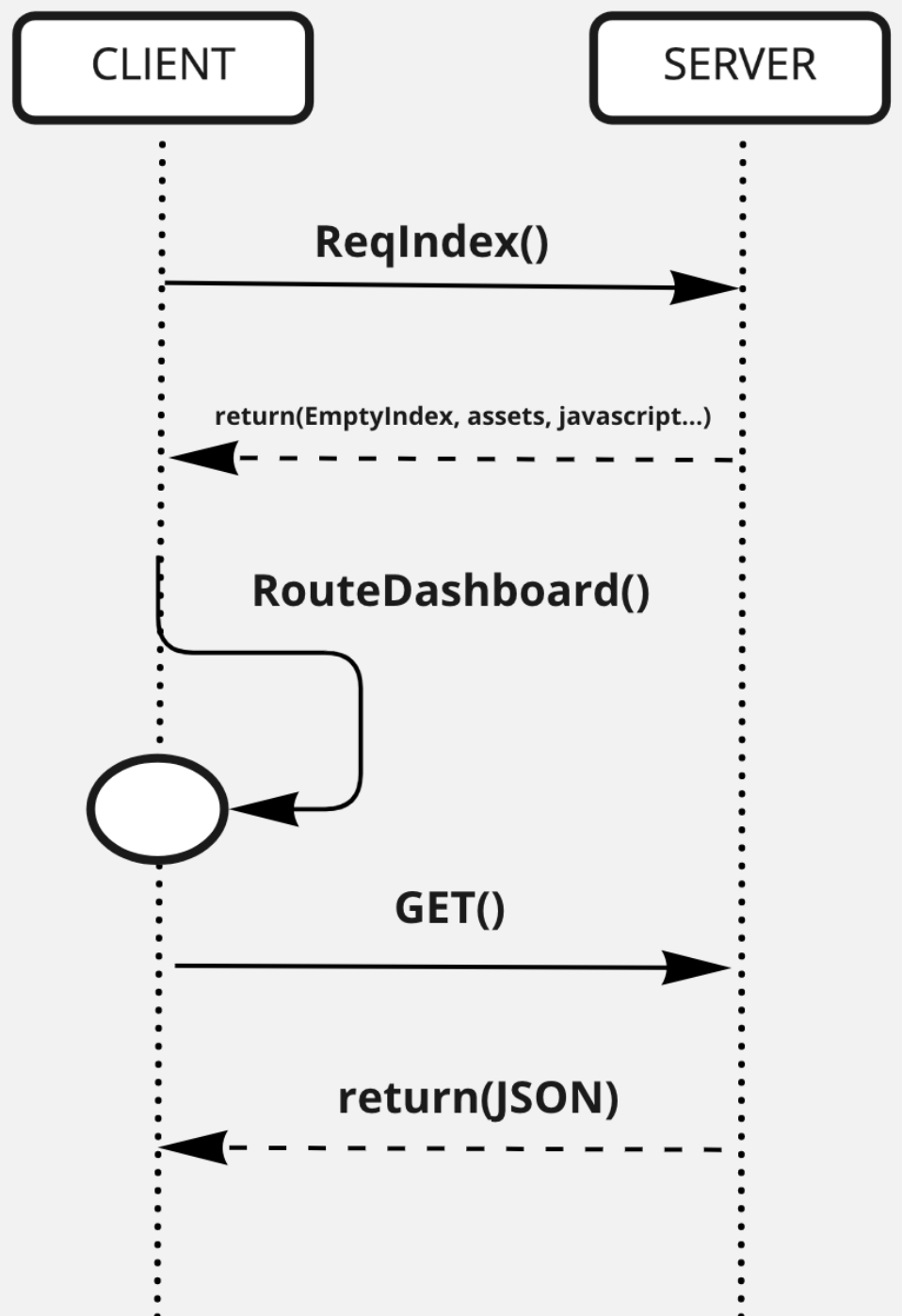
CLIENT   SERVER

ReqIndex()

return(index, assets, javascript...)

RouteDashboard()

return(Dashboard.html)

SPA

CLIENT   SERVER

ReqIndex()

return(EmptyIndex, assets, javascript...)

RouteDashboard()

GET()

return(JSON)

Single Page Application

Speed

Search Engine
Optimizations

Front-End
decoupling
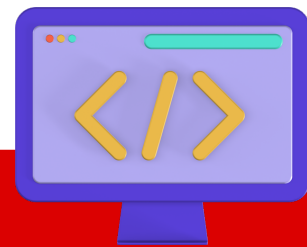
Javascript
Required

Modernity

About Lasting Dynamics

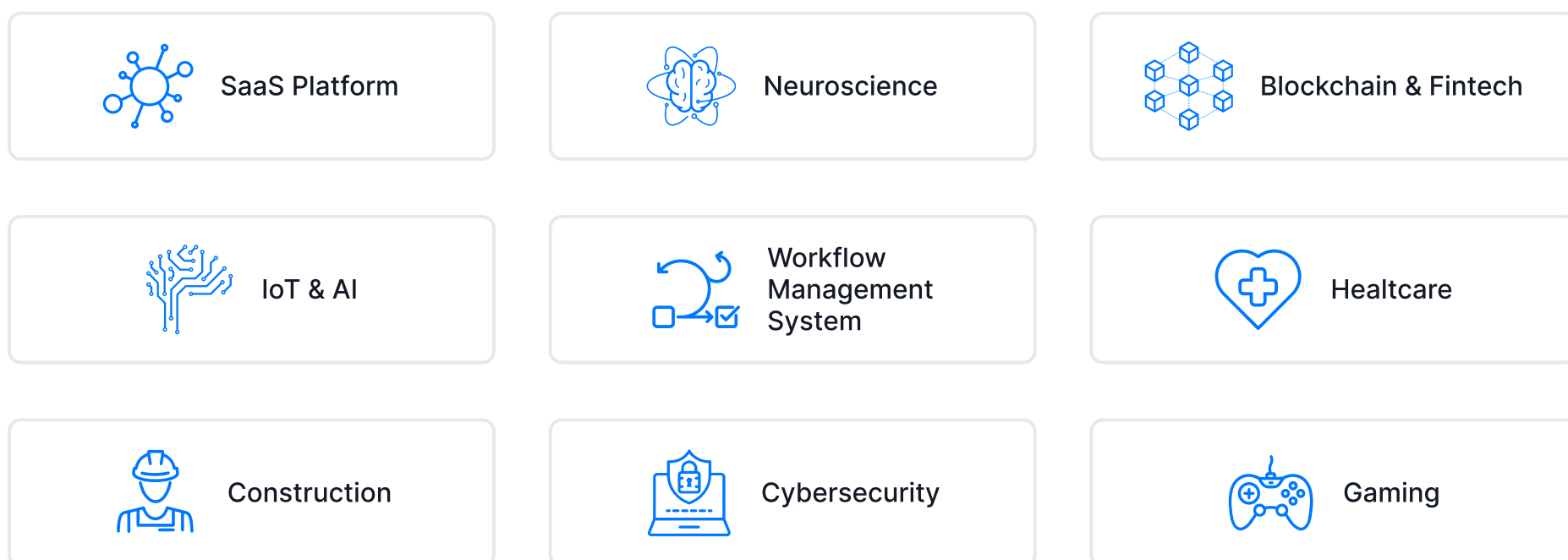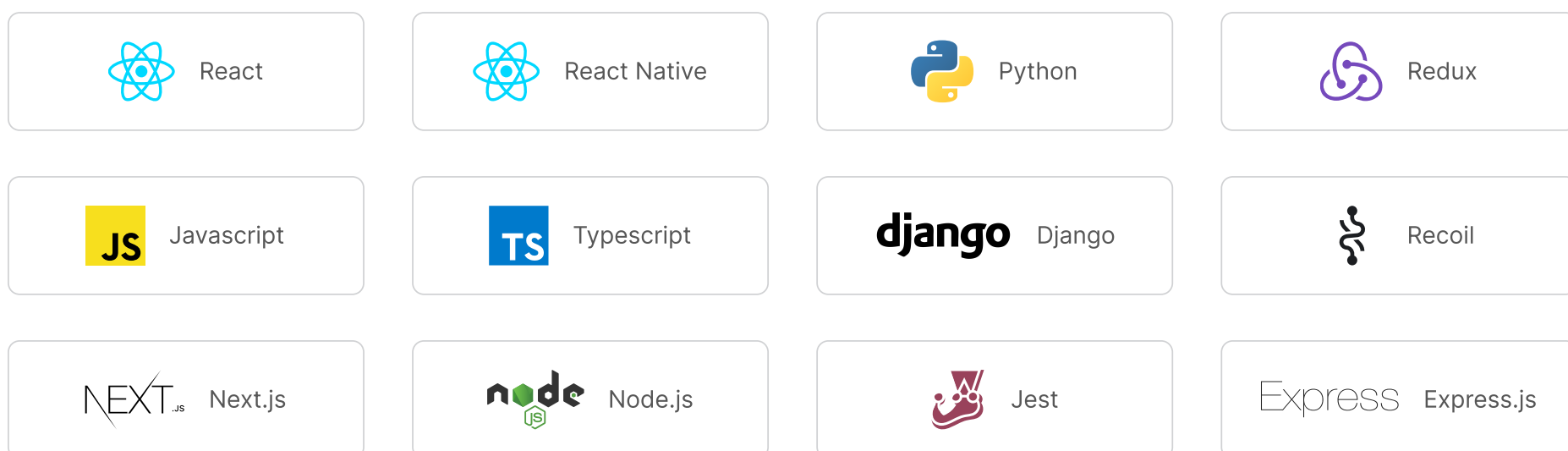According to most of the institutional platforms of the IT market, such as Clutch.co, Techbehemoths.com and Superbcompanies.com, and many others, Lasting Dynamics is the number 1 software house in Italy for reviews, B2B collaborations, and quality of products developed in the field of web and mobile consultancy, top 50 in Europe, top 5 in Spain and Norway.

Industry

SaaS Platform	Neuroscience	Blockchain & Fintech
IoT & AI	Workflow Management System	Healtcare
Construction	Cybersecurity	Gaming

Technologies stack

React	React Native	Python	Redux
Javascript	Typescript	Django	Recoil
Next.js	Node.js	Jest	Express.js

Rewards

TOP B2B COMPANIES — Clutch — WESTERN EUROPE 2020

TOP MOBILE APP DEVELOPERS — Clutch — ITALY 2021

SOFTWAREWORLD TOP RATED 2021

SUPERBCOMPANIES.COM — TOP AUTOMATION TESTING COMPANIES — in 2021

SUPERBCOMPANIES.COM — TOP MOBILE APP DEVELOPMENT COMPANIES — in 2021

SUPERBCOMPANIES.COM — TOP PERFORMANCE TESTING COMPANIES — in 2021

Join Lasting Dynamics

As a constantly expanding reality, we are always looking for new talents who can join our developer teams in offices in Italy or in Las Palmas de Gran Canaria.

Academy

The Lasting Dynamics Academy is an intensive 30–60 day training course and represents the starting point for your career in the IT world.
During the training, the selected candidates learn how to work in a team following agile practices, basic software architecture, design patterns and assimilate our mindset by working on test projects and then on real projects.

How does it work?

01 Submit Application

After sending the application, the first cognitive interview is scheduled to get an overview of your academic background, your experiences and passions.

02 Technical interview

After the cognitive interview, you will move on to the second step with one of our senior developers for a technical interview.

03 Attend the academy

Study, complete assigned tasks, participate in retrospective meetings with team leaders and receive the final certificate.

04 Validation of the internship

Successfully conclude our academy and validate your internship with the University of Naples Federico II

05 Join an elite team

Become a Lasting Dynamics developer and immediately start working on challenging projects for international realities.

06 Relocation kit

If you are looking for an experience outside your country, there is always room in our Las Palmas office. One of the benefits is the apartment included!

LASTING
DYNAMICS

www.lastingdynamics.com