📊Vue.js vs React vs Angular — Production-Focused Comparison (Handout)

⚔️Vue.js vs React

Aspect	Vue.js	React
Core idea	Progressive framework; supports templates & Composition API	Library focused on UI, functional components, JSX
Component syntax	HTML templates (`.vue` single-file components)	JSX, UI in JavaScript functions
State management	Vuex / Pinia, Composition API	Context API, Redux, Zustand
Reactivity	Dependency-tracking, reactive refs	Immutable state, re-renders on state/prop change
Learning curve	Easier for beginners	Steeper (JSX, hooks)
SSR / SSG	Nuxt.js	Next.js
Integration	Easy to add gradually	Usually expects to own whole UI
TypeScript	Strong support, especially with Composition API	Strong support, widely used
Tooling	Vue CLI, Vite, Devtools	Create React App, Vite, Devtools
CSS	Scoped CSS, CSS modules	CSS-in-JS, CSS modules
Usage	Alibaba, Xiaomi, GitLab	Facebook, Airbnb, Netflix
Performance	Efficient reactive updates	Fast, React 18 adds concurrent rendering

💣Vue.js vs Angular

Aspect	Vue.js	Angular
Core idea	Lightweight, progressive	Full framework, batteries included
Language	JavaScript / TypeScript optional	TypeScript mandatory
Component syntax	Templates + script in `.vue`	HTML templates with decorators
State management	Vuex / Pinia	Services, RxJS observables

Aspect	Vue.js	Angular
Size & complexity	Smaller, flexible	Larger, opinionated
Learning curve	Easier	Steep (DI, RxJS, modules)
SSR	Nuxt.js	Angular Universal
CLI / tooling	Vue CLI, Vite	Angular CLI (powerful, strict)
Community	Strong, especially in Asia	Backed by Google, enterprise apps
Use cases	Quick apps, gradual adoption	Large enterprise apps

🔗Production Tips:

• Choose Vue when you need gradual adoption, smaller bundle, or simpler learning.
• Choose React if you prefer UI-as-functions, large ecosystem, or Next.js.
• Choose Angular for large, structured enterprise apps needing strict architecture.

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