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Introduction to Micro Frontends

Micro Frontends: Modularizing Web Applications for Scalability

DEFINITION

> Micro frontends are an architectural style that breaks up a web application into smaller, manageable pieces. Each piece, or 'frontend,' can be developed, deployed, and maintained independently.

KEY CONCEPTS

Independent Development

Each micro frontend can be built using different technologies or frameworks, allowing teams to choose the best tools for their needs.

Team Autonomy

Teams can work independently on their micro frontends, leading to faster development cycles and reduced dependencies.

Integration Techniques

Micro frontends can be integrated using various methods like iframes, JavaScript, or web components, depending on the use case.

Deployment Flexibility

Each micro frontend can be deployed separately, enabling continuous integration and delivery without affecting the entire application.

User Experience Consistency

Despite being developed independently, micro frontends should maintain a consistent user experience across the application.

EXAMPLES

→ An e-commerce site with separate micro frontends for product listings, shopping cart, and user reviews.

→ A news website where articles, comments, and advertisements are managed by different teams as micro frontends.

MEMORY TIPS

★ Think of micro frontends like LEGO blocks: each piece is unique but fits together to form a complete structure.

★ Remember 'Independent Teams, Integrated Experience' to capture the essence of micro frontends.

COMMON MISTAKES

✗ Overcomplicating integration methods, leading to performance issues.

✗ Neglecting user experience consistency across different micro frontends.

QUICK RECAP

Micro frontends allow for modular development of web applications, enhancing team autonomy and deployment flexibility. By integrating independently developed components, they maintain a cohesive user experience while promoting scalability.