

Single Page Applications (SPA)

Jogesh K. Muppala



THE DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
計算機科學及工程學系



香港科技大學
THE HONG KONG UNIVERSITY OF
SCIENCE AND TECHNOLOGY

Traditional Web Sites

Browser



Request index.html



Send index.html



Request contactus.html



Send contactus.html

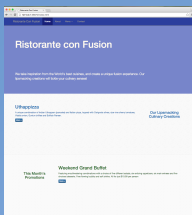


Server



Single Page Applications

Browser



Request Web Application

Send Web app and Assets

User clicks on link, new Request

Respond with JSON data

Server



What is Single Page Application?

- Web application or web site that fits in a single page
 - No need to reload the entire page
 - UX like a desktop/native application
 - Most resources are retrieved with a single page load
 - Redraw parts of the page when needed without requiring a full server roundtrip

Challenges in SPA

- Search engine optimization
- Partitioning the responsibility between client and server
- Maintaining history
- Analytics
- Speeding up the initial page load