TECHNISCHE UNIVERSITÄT DRESDEN

DRESDEN concept

Application Development for Mobile and Ubiquitous Computing

Second Presentation

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STILL REMEMBER US?

Application scenario - Student Simulator 2017

- Your own virtual student
- Study in ways you never could before
- Manage your resources carefully
- Play the game the way you like it
    - Best marks
    - Most money
    - Fastest degree

GOOOD!

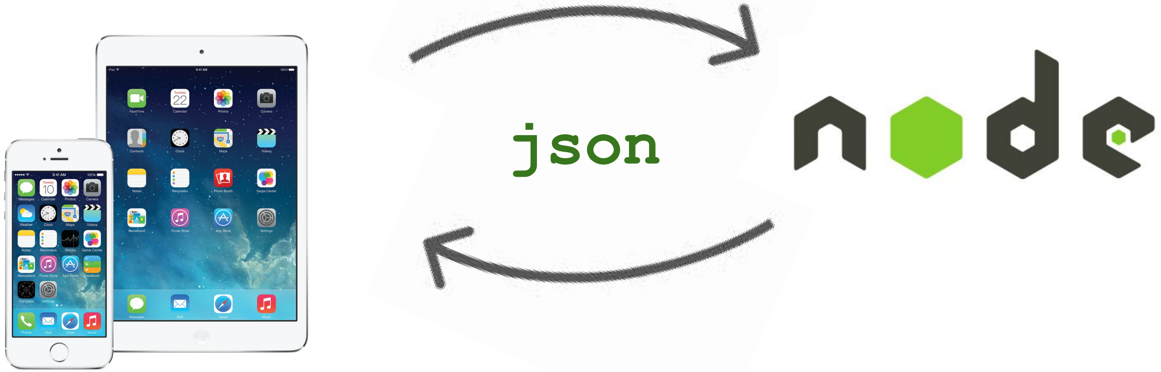
LETS CONTINUE

Detailed Architecture

iOS App

- Xcode/Swift 3.0
- Auto Layout
- Local Storage

Detailed Architecture

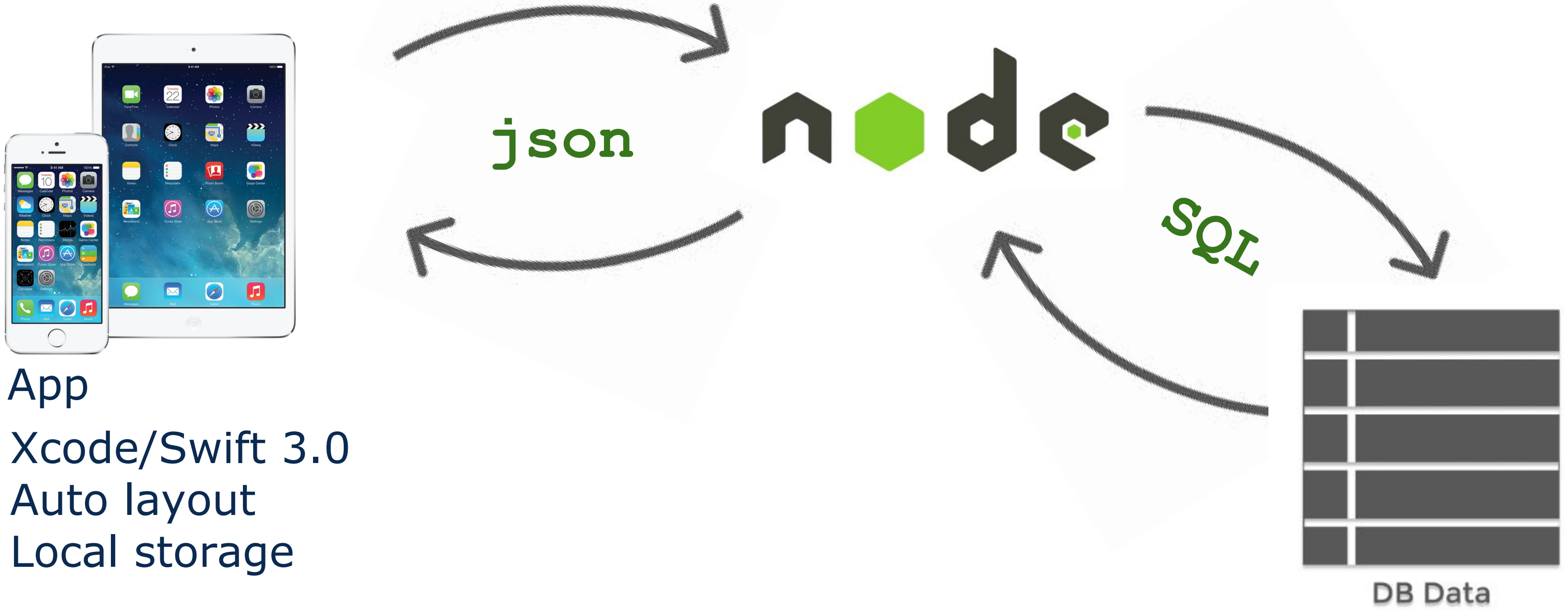


json

iOS App

- Xcode/Swift 3.0
- Auto Layout
- Local Storage

Detailed Architecture



iOS App

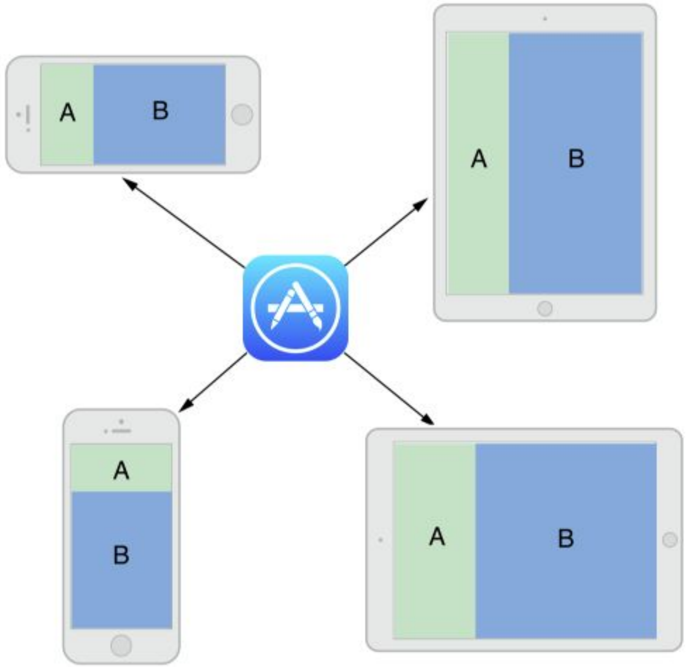
- Xcode/Swift 3.0
- Auto layout
- Local storage

- MySQL

Usability Challenge

- Auto layout
  - Universal setup for all iDevices
- App recognizes device

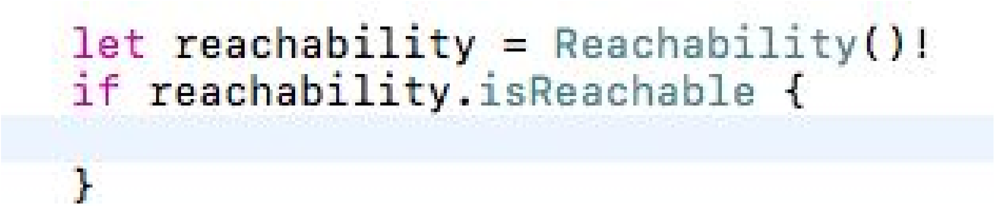
Figure 12-1 Adapting to different devices and orientations



https://developer.apple.com/library/content/featuredarticles/ViewControllerPGforiPhoneOS/TheAdaptiveModel.html#//apple_ref/doc/uid/TP40007457-CH19-SW1

Context feature for the Offline Challenge

- Technical context
- Internet connection?
- Reachability.swift file from Github
- System Configuration framework



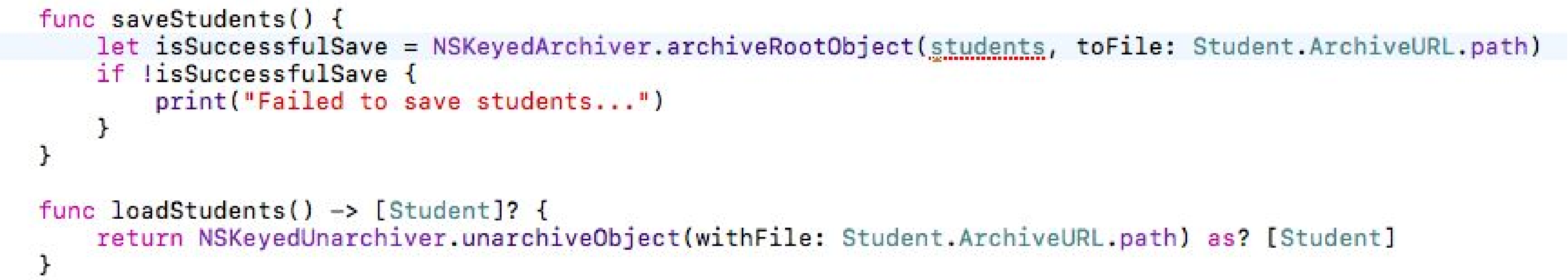
```
let reachability = Reachability()!
if reachability.isReachable {

}
```

Adaptation - Persistent storage

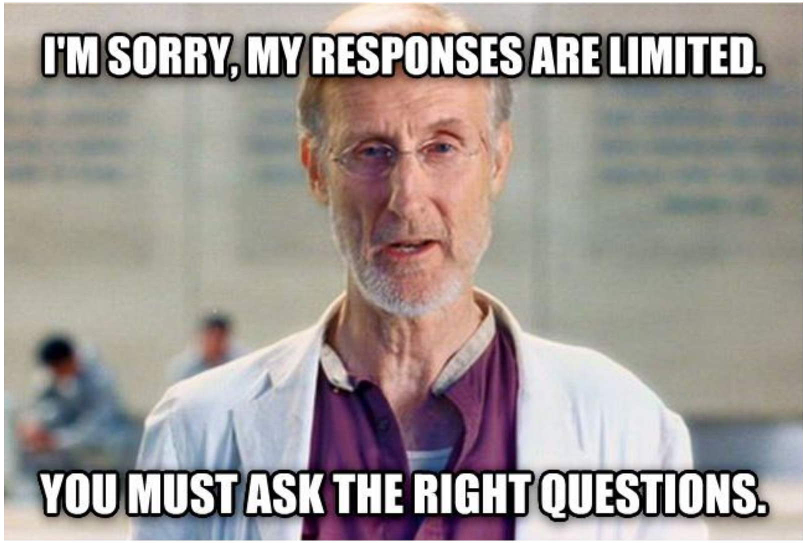
- Save progress locally
  - Key-Value storage

- Update high scores when there is an internet connection



```
func saveStudents() {
    let isSuccessfulSave = NSKeyedArchiver.archiveRootObject(students, toFile: Student.ArchiveURL.path)
    if !isSuccessfulSave {
        print("Failed to save students...")
    }
}

func loadStudents() -> [Student]? {
    return NSKeyedUnarchiver.unarchiveObject(withFile: Student.ArchiveURL.path) as? [Student]
}
```


I'M SORRY, MY RESPONSES ARE LIMITED.
YOU MUST ASK THE RIGHT QUESTIONS.