

Application Development for Mobile and Ubiquitous Computing

Final Presentation

Lukas Klose, Alexander Shulga
Dresden, 27th January 2017

STILL

STILL REMEMBER US?

Application scenario - Student Simulator 2017

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



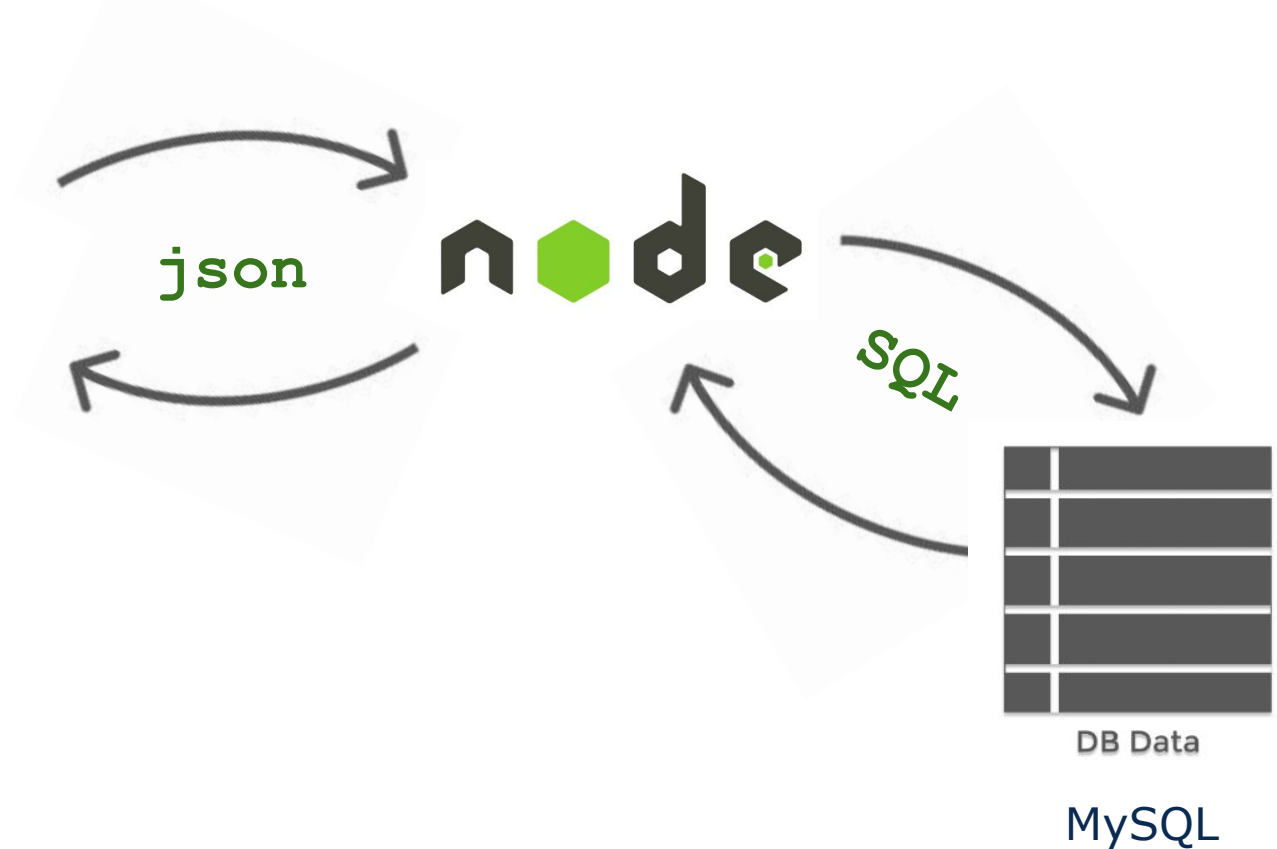
GOOD!

LETS CONTINUE

Detailed Architecture



iOS App

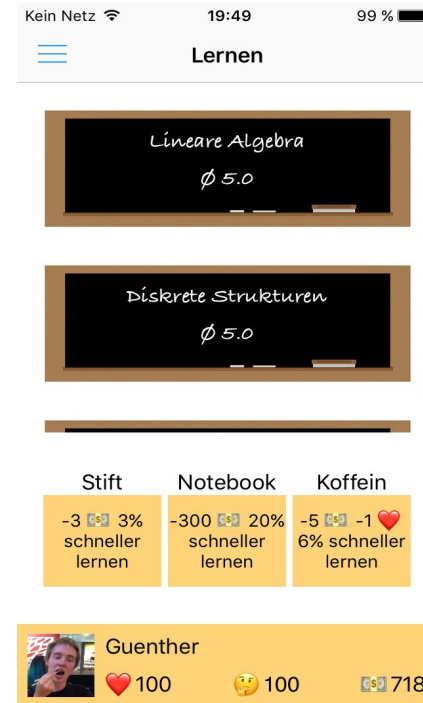


Usability Challenge



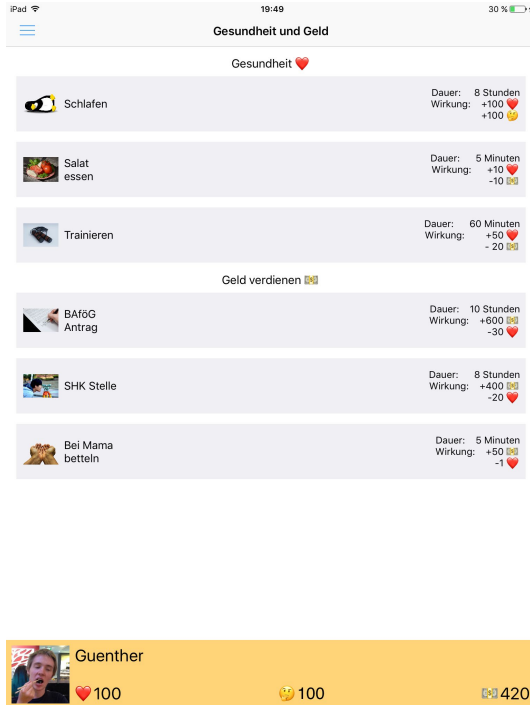
iPad Air 2

9.7" vs 4"



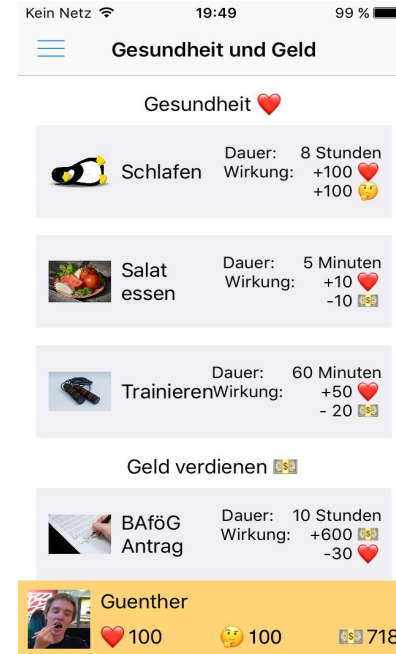
iPhone 5

Usability Challenge



iPad Air 2

9.7" vs 4"



iPhone 5

Adaptation - Persistent storage

- Save progress locally
 - Student, [Lectures], [Highscores]
- App restart keeps all data

```
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]  
}
```

Context feature for the Offline Challenge

- Highscores stored locally
- Update possible, when Internet available



Open issues and lessons learned

- Make ALL mockups for iPhone AND iPad in advance
- It is really hard to adapt to different screen sizes
- Non standardized user interfaces are hard to develop
- Big projects need big amount of time

- Game balancing should be done
- Invest time in appealing user interface

Demo

Demo

stsim-tud.ddns.net:6789

advanced:

stsim-tud.ddns.net:6789/set/IDSTRING/name/mark/money

