Apps with love

Bachelor Project

Presentation I – Introduction, Situation, Goals & Method

1. October 2019

Alain Stulz / 2019
Company Introduction

Full Service Digital Agency
Company Introduction

Founded: 2010
Offices: Bern & Basel
Employees: 35
Nearshore & Freelance: 50+
App Store Uploads: 200+
Where We Began
“Festival Buddy”
How To **Create**
Many Apps
**Efficiently?**

**Reuse** Code
How To **Create** Many Apps **Efficiently**?

**Reuse** Code

- Copy & Paste
How To **Create** Many Apps **Efficiently**?

**Reuse** Code
- Copy & Paste
- Custom **Framework**
More Features!
More Features!

- Geofencing
- Analytics
- POIs
- Video Gallery
- Push
- Locales
- Twitter Feed
- Splash Screen
- Survey
More Features!
No Time Left!
More Features + No Time Left = Technical Debt
Technical Debt
Who Needs Unit Tests, Anyway?

<table>
<thead>
<tr>
<th>Name</th>
<th>Coverage</th>
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<tbody>
<tr>
<td>AFNetworking.framework</td>
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<tr>
<td>ABFCoreApp.framework</td>
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<td>ABFCoreUI.framework</td>
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<td>MAVTableManager.framework</td>
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<td>ABFVideoGalleryModule.framework</td>
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<tr>
<td>AFBCommunicationsModule.framework</td>
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**Guessing Game:** What does Util do?

```c
// Util.h
// OvoApp
// Created by Olivier Oswald on 08.11.10.
// Copyright 2010 Apps with love. All rights reserved.

#import <Foundation/Foundation.h>
#import <MessageUI/MFMEmailComposeViewController.h>

@interface Util : NSObject
```
@interface Util : NSObject

+(NSString*)trimString:(NSString*)string;
+(NSDate*)dateWithDay:(NSInteger)day withMonth:(NSInteger)month withYear:(NSInteger)year;
+(NSDate*)dateWithDay:(NSInteger)day withMonth:(NSInteger)month withYear:(NSInteger)year
    withHour:(NSInteger)hour withMinute:(NSInteger)minute withSecond:(NSInteger)seconds;
+(NSString *)abfMessageForErrorMessage:NSError *error;
+(void)abfShowAlertForError:NSError *error;
+(void)alertWithTitle:(NSString*)title withText:(NSString*)text;
+(void)errorAlertWithTitle:(NSString*)text;
+(void)unexpectedErrorAlert;
+(BOOL)isValidEmailAddress:(NSString*)email;
+(void)sendEmailMessageTo:NSArray *recipients subject:(NSString *)subject text:(NSString *)text
    image:(UIImage *)image mailComposeDelegate:(id<MFMailComposeViewControllerDelegate>)mailComposeDelegate;
+(NSString *)stripHTML:(NSString *)html;
+(NSString *)localizeHTML:(NSString *)html;
+(BOOL)date:(NSDate*)date isBetweenDate:(NSDate*)beginDate andDate:(NSDate*)endDate;

#pragma mark --- 2014
+(NSString *)stringWithDate:(NSDate*)date dateFormat:(NSString*)dateFormat;
+(NSString *)createTextFromDate:(NSDate*)date;
+(NSString *)convertNumberOfLikesToString:(NSInteger)numberOfLikes;
Where We Are Today
Bern Welcome
Patrouille des Glaciers
Five up
Where We Want To Go
Goals

• Improve code quality
• Make (changing) code safer
• Increase developer efficiency
Goals

• Improve code quality
• Make (changing) code safer
• Increase developer efficiency

Tools

• Metrics
• Automated Tests
• Documentation
How We Want To Do It
Project Phases

1. Preparation
2. Execution
3. Conclusion
Project Phases

1. Preparation
2. Execution
3. Conclusion

- Analysis
  - Overview of state and usage
- Scope
  - Identify core features
- Metrics
  - Define and capture quality
Project Phases

1. Preparation
2. Execution
3. Conclusion

• Setup
  • Fork, prepare systems

• Prioritization
  • Set a strategy

• Development
  • Select, refactor, cover, repeat
Project Phases

1. Preparation
2. Execution
3. Conclusion

• Results
  • Revisit metrics and goals
• Documentation
  • Document and reflect
• Future
  • Workflows, roadmap
Summary

Problem
Technical Debt, hard to make changes

Solution
Improve existing code base through refactoring

Goal
Easier to work on code and make further improvements