

Programming for non-Programmers

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A whirlwind tour in three parts ...

1. Architecture

2. Agility

3. Implementation

Programming for non-Programmers

ARCHITECTURE

Very Fast ...

but very dumb

- Billions of cycles / sec
- Millions of bytes / sec
- Thousands of writes / sec
- Faces
- Voices
- Handwriting
- “Do What I Mean”

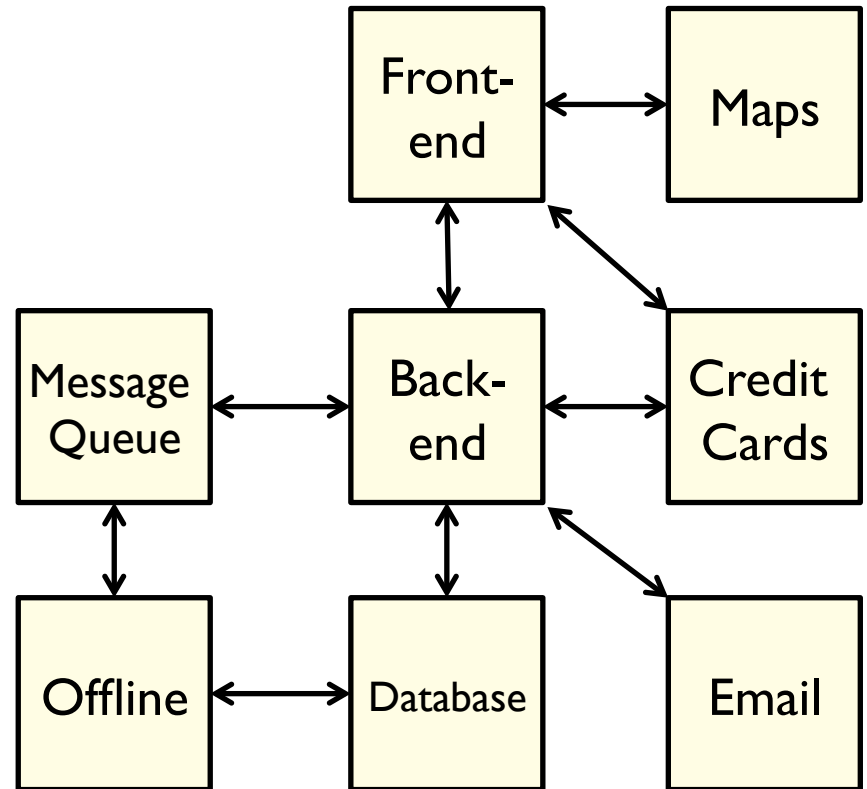
PERFORMANCE

- **Realistic targets**
- **... from business plan**
- **Minimum Viable Product**

COMPONENTS

- **Source code is not an asset!**
- **Divide and conquer**

- **Front / Back**
- **Database**
- **Message Queue**
- **External Services**



WEBSITES & WEBAPPS

- **Static HTML**
- **HTML Templates & Forms**
- **HTML5 & AJAX**
- **Single Page HTML5**

APPS & APPLICATIONS

- **Native Apps (iOS, Android, Windows Phone)**
- **PC Applications (Windows, Mac, Linux)**
- **Hybrid & Mixed Approaches**

DISCUSSION: Technologies

Programming for non-Programmers

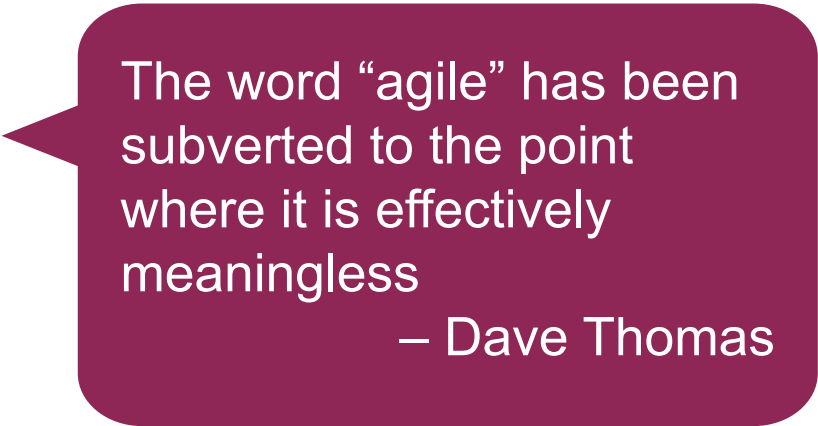
AGILITY

AGILE MANIFESTO

- **Individuals and Interactions *over* processes and tools**
- **Working software *over* comprehensive documentation**
- **Customer collaboration *over* contract negotiation**
- **Responding to change *over* following a plan**

AGILE DEVELOPMENT

- **Sprints**
- **Phases**
- **User Stories**
- **Standup Meetings**
- **Index Cards**



The word “agile” has been subverted to the point where it is effectively meaningless

– Dave Thomas

AGILE DEVELOPMENT

- Issue Tracking
- Revision Control
- Review
- Culture

DOCUMENTATION

- **“Document Driven Development”**
- **User Stories**
- **Wireframes**
- **Requirements**
- **Specifications**

TESTING & REGRESSIONS

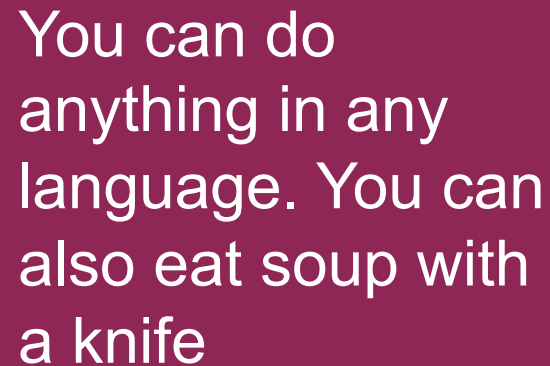
- **Automated Tools**
- **Test Driven Development**

DISCUSSION: Projects

Programming for non-Programmers

IMPLEMENTATION

- **Operating System**
- **Languages**
- **Databases**
- **Libraries**



You can do anything in any language. You can also eat soup with a knife

– Ville Vainio

FRAMEWORKS

Python	Django, Tornado
Ruby	Ruby on Rails
Javascript	Node.js / Express, ASP ...
PHP	Laravel, ...
Java	Spring, JBoss, Grails, ...

DATABASES

SQL:

- **MS-SQL**
- **Postgres**
- **MySQL**
- **SQLite**

NoSQL:

- **MongoDB**
- **CouchDB**
- **Cassandra**
- **Redis**

AUTOMATION

- **Configuration Management**
Puppet / Ansible / Chef
- **Automate Everything**
- **Backups!**

Q&A

p12: Agile Manifesto <http://agilemanifesto.org/>

p13: Dave Thomas, co-author of the Agile Manifesto:
<http://pragdave.me/blog/2014/03/04/time-to-kill-agile/>

p18: Ville Vainio on /r/programming:
http://reddit.com/r/programming/comments/29syhg/farewell_nodejs/cioaq3o

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