

PROJECT

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2020-2021



GOALS & EXPECTATIONS

Goals

- Study and define all aspects of the software architecture
- Experiment with the architect's approach
- Be able to explain the technical choices
- Code the MOST RELEVANT parts

Expected deliverables

- POC complete by Nov 6th
- Architecture is **documented**
- Weekly status email
 - What was done
 - What is planned
 - Why the difference from last week
 - Issues
 - Risk
 - RYG flag
 - Title: [SI5-AL][TeamX][ProjectStatus]



Expectations

- Read your mail/Slack
- Work seriously
 - and regularly
- No copy-paste
- Commits
- Unit-tests
- Continuous Integration
- Register defects



Organization

- Team work (teams of 4)
- Continuous, iterative approach mandated
- Produce architecture deliverables
- Be creative
- This is not a programming class
 - Good programming practices are still a good idea...

Roles within team

- Agile principle: self-organizing team
- But
 - How are you organized?
 - Role != person
 - All do something

Timeline

Arch overview

Risk identified

Scope defined

POC demo



Roadmap

Tech. choice

Final demo



Exam

Timeline

- 38: choose a topic, build the teams
 - 39: define scope, users. Identify risk areas, investigations. Define use cases
 - 40: general architecture, technology choice, external interfaces
 - 41: component details, internal interfaces. Ext. systems mocked.
 - 42: Continuous Integration Env. built. Walking skeleton
 - 43: Main risk mitigated
 - 44: coding enough of the rest for the POC
 - 45: POC complete
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- Testing occurs all along
 - This timeline assumes iteratively reviewing past achievements

TOPIC & VARIANTS

Main topic

Train Management



Description

- Management of train operations
- Booking, pricing
- Route planning, connections
- Incident management (delays, rerouting)
- Maintenance (railroad and cars)
- Cargo

Variants

- Each team needs to define the architecture of the WHOLE system
- Each team will focus on ONE variant in the list below (or suggest your own)
- The POC implementation will
 - Implement the core component
 - Implement the focus area
 - Mock up the other components

Variant list

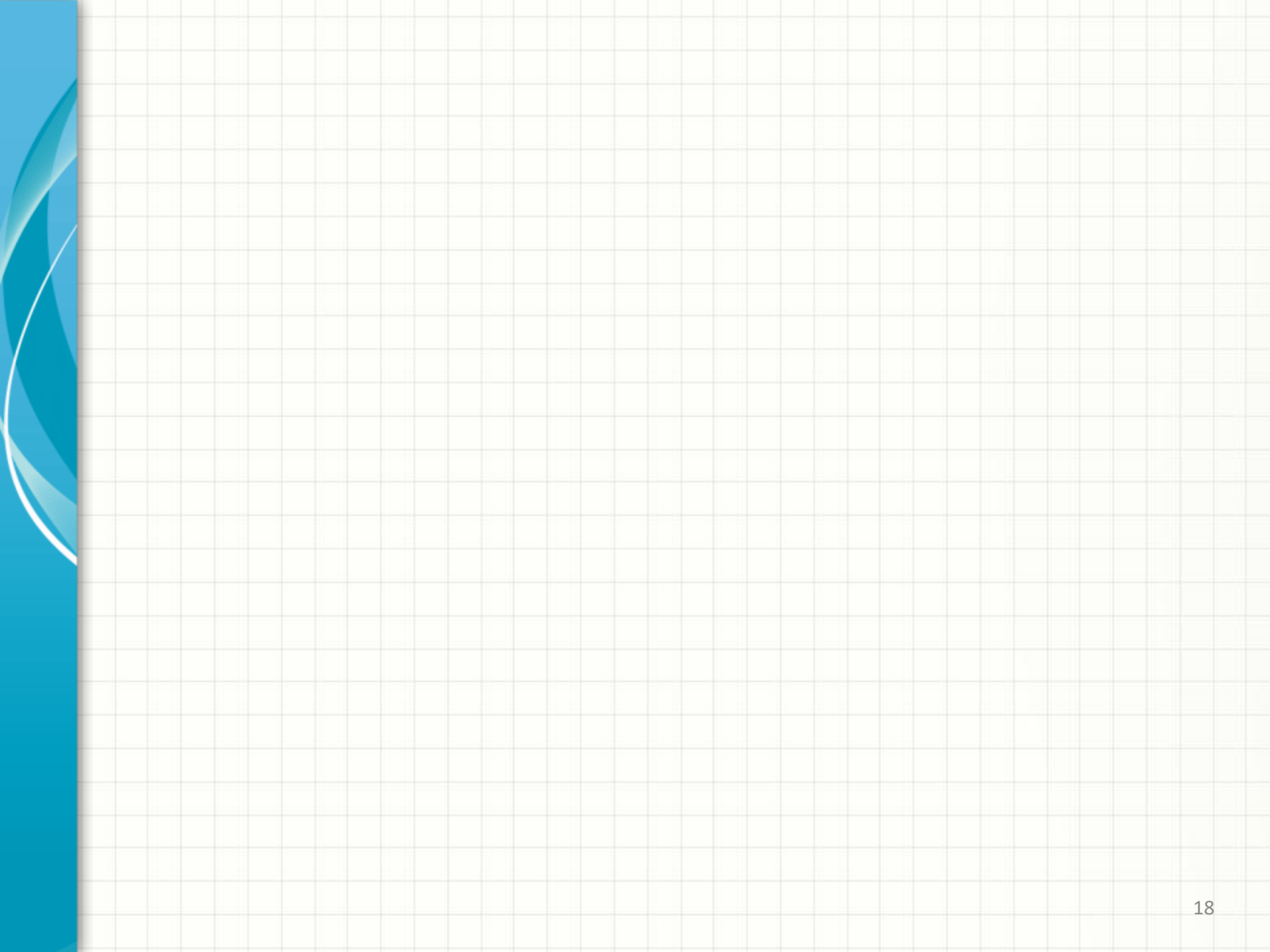
- V1: booking
 - Website and mobile app
- V2: ticket control
 - Mobile app in train + statistics collection
- V3: Route planning
 - Connection
 - Vacation schedules
- V4: Cargo
 - Cargo allocation and planning
 - Connection with trucks
- V5: Preventive maintenance and breakdown
 - Scheduling and unscheduled

Variant list

- V6: Customer management for incident
 - Passenger notification, rerouting
- V7: Loyalty program and promotions
 - Product recommendation, ad campaigns
 - Loyalty management
- V8: Travel agent API
 - And group booking
- V9: Railcar management
 - Inventory, tracking
 - Train planning and assembly



QUESTIONS?





APPENDIX