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Beyond //build: DevOps, Azure and a JVM app

About me… John Jacobs

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- Technology Consultant

- Principal Architect, Practice Leader at Credera

- Financial services, banking, telecom, eCommerce

- Primarily a JVM, open source guy

- Cloud, DevOps, Shared Nothing

- Texas A&M, UT San Antonio

- McKinney, TX

- 1 wife, 2 kids, 1 dog

- Outdoors, hiking, skiing, backpacking

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# Today we will build a DevOps pipeline for a Java-based web app and run it in Azure app services

Agenda

- Business case

- Why Azure?

- Technology stack overview

- Create stack using ARM templates and cross-platform CLI

- Build and deploy from VSTS

- Monitor in production using ~~Application Insights~~ our eyeballs

- Fix a performance bug

- Release the fix to production – Continuous Delivery, zero downtime

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# Technology exists to meet human needs – so how is this app helpful?

- I need something for a DevOps demo ☺

- Real time in flight feedback

- The app needs to be simple yet non-trivial – something that we can deal with in one hour together

- Mobile responsive

- Social login – so be nice!

- Zero downtime deployments

  Let's track these features in
      Visual Studio Team
      Services!

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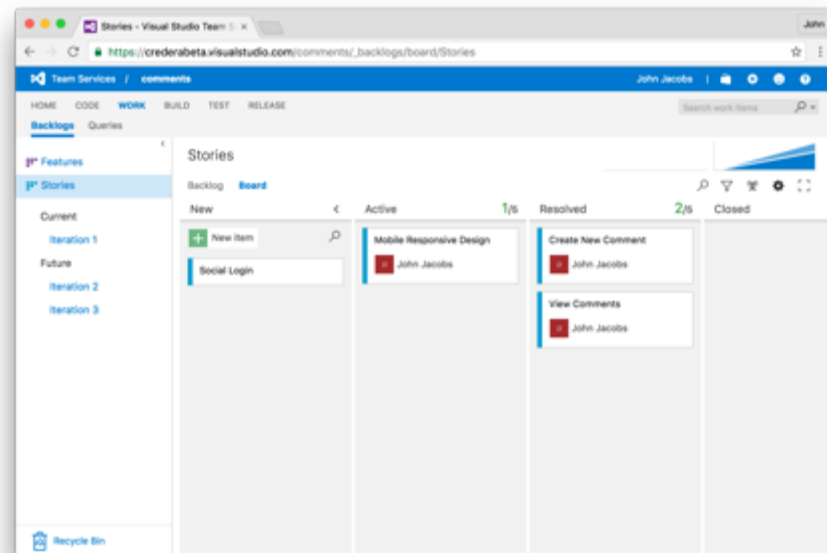
Why are VSTS and Azure App Services a good fit for our app?

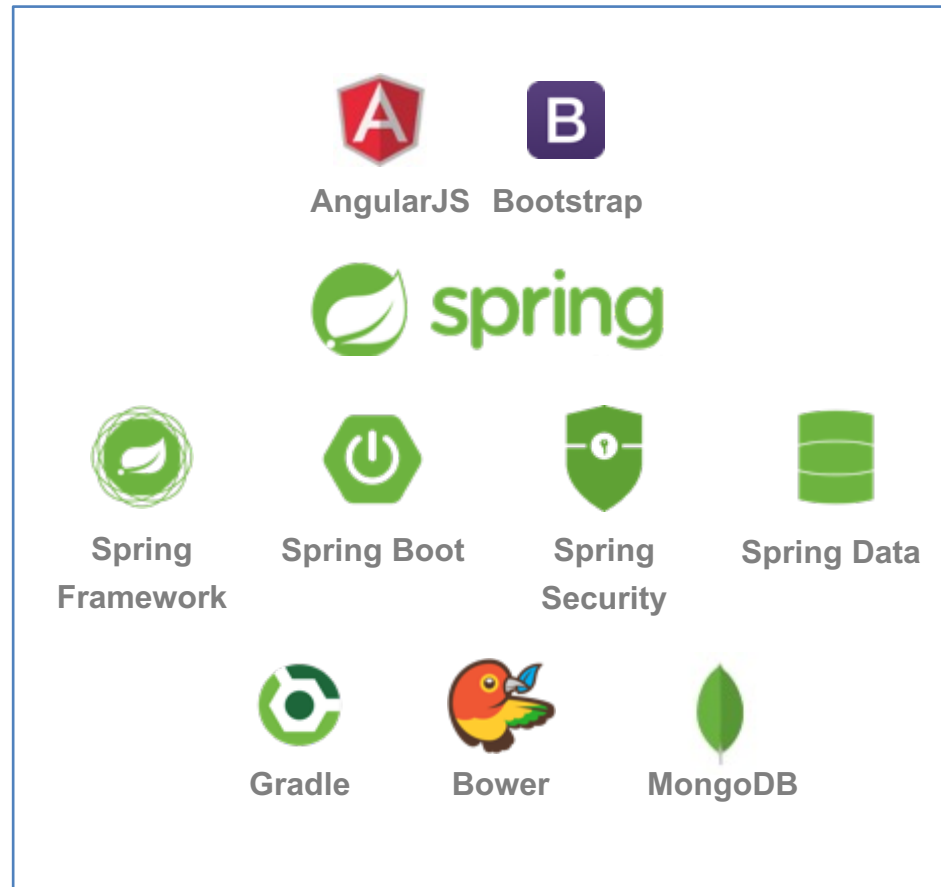- In the open source world, we're used to stitching platforms together
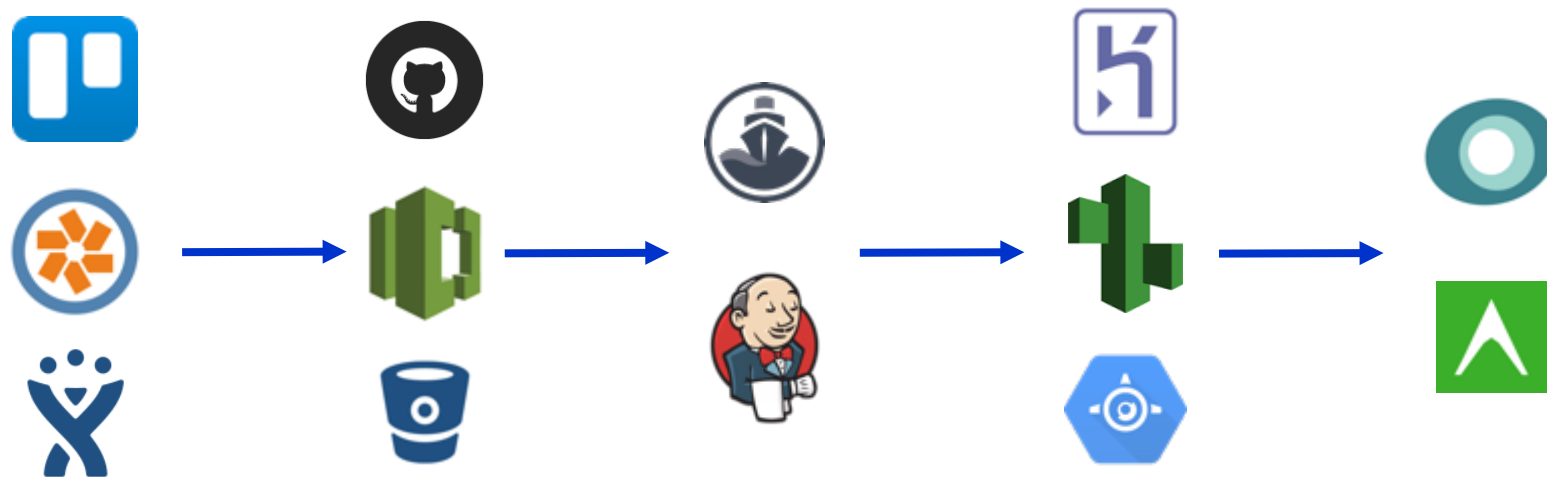
- Integrating and maintaining all of this is time consuming, costly, (in)secure

- Azure and VSTS provide a "one stop shop" and a consistent tool set

- Servers are a pain, let someone else deal with patching and maintaining them

The Comments app is built on a modern JVM-based stack

Application Stack

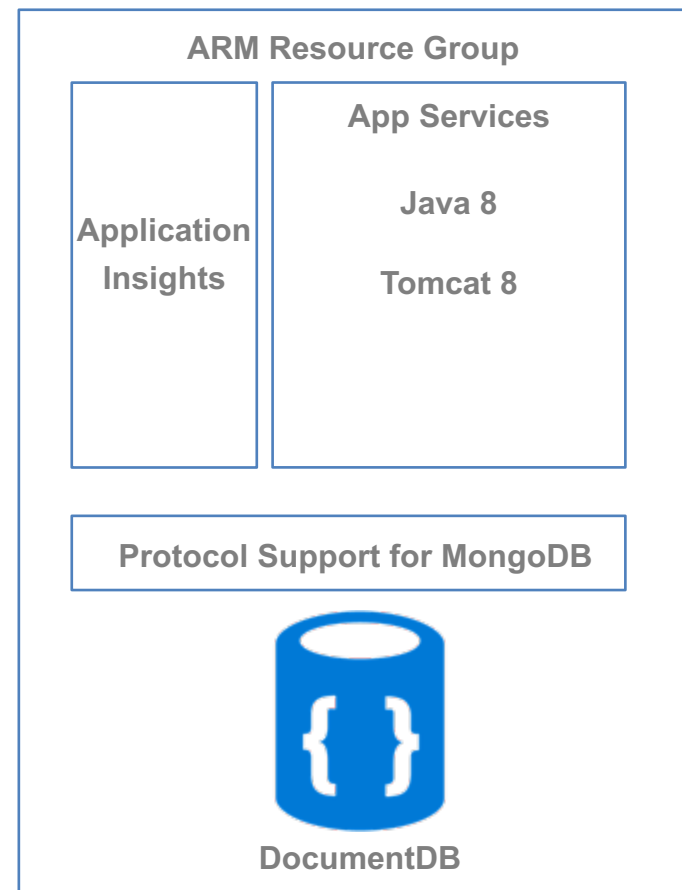AngularJS   Bootstrap

spring

Yeoman

Spring Framework   Spring Boot   Spring Security   Spring Data

Gradle   Bower   MongoDB
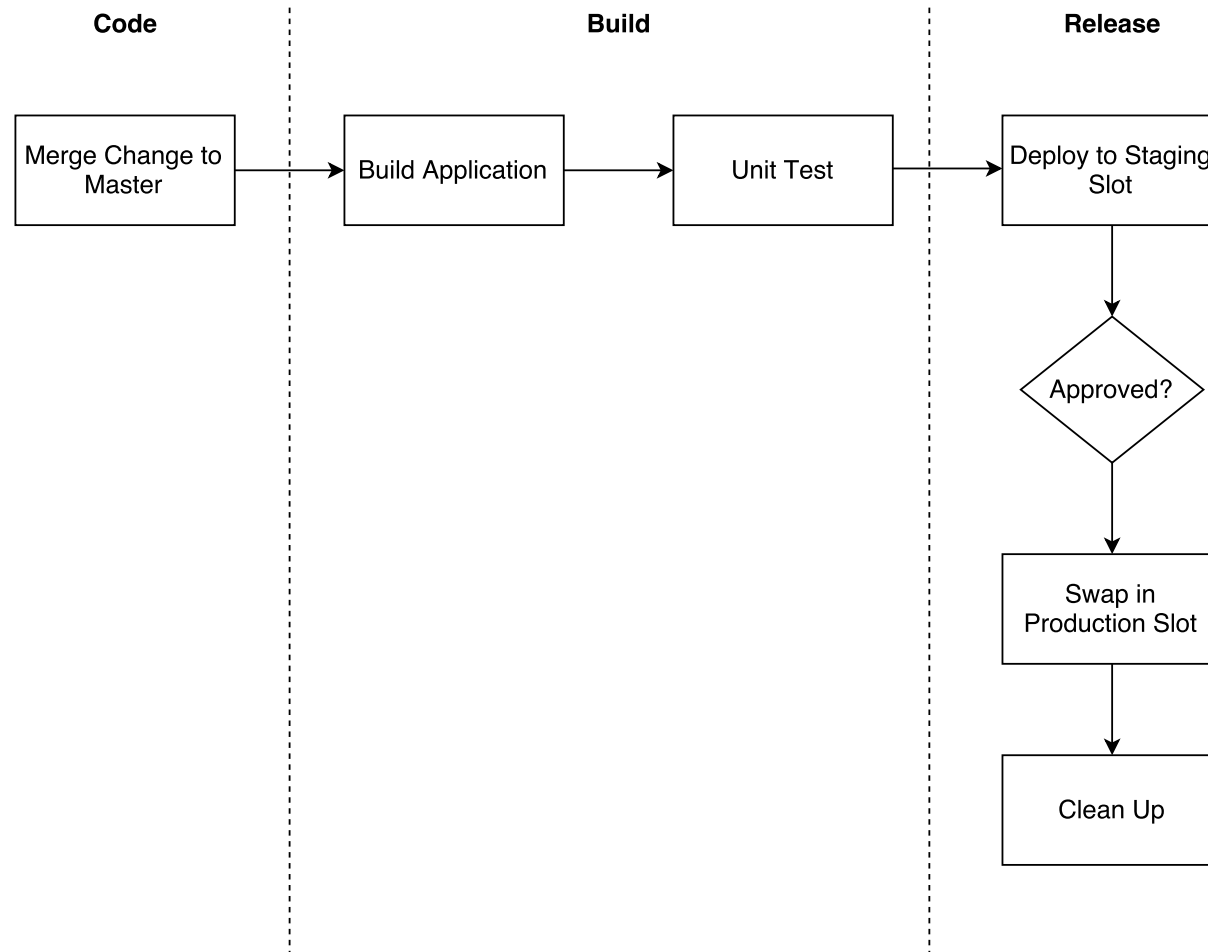
JHipster

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Let's build a DevOps solution using Azure and VSTS native tools

- ARM templates

- Resource Groups

- Azure cross-platform CLI

- bash scripts

- PowerShell scripts

- Azure web apps (PaaS)

- Deployment slots – blue/green

- DocumentDB with protocol support for Mongo

- Visual Studio Code

- git, the old-fashioned way

Azure Cloud Stack

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The application has a simple Continuous Delivery pipeline pre-configured in VSTS

Code | **Build** | **Release**

Merge Change to Master → Build Application → Unit Test → Deploy to Staging Slot

Deploy to Staging Slot → Approved? → Swap in Production Slot → Clean Up

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Enough slideware … Let's see some code!

https://github.com/john99jacobs/msdevops

Participate!
http://bit.ly/jjtalk

Thank you for your time today!

Questions?

https://github.com/john99jacobs/comments

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