An End-to-End Model-Driven Platform: Progress Rollbase + Progress Corticon

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VP of Engineering, Rollbase
Former CTO of Corticon
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PROGRESS EXCHANGE 2013
DISCOVER. DEVELOP. DELIVER.

Agenda

- Overview of Model-Driven Architecture
- Introduction to Business Decisions and Rules
- Progress Rollbase + Progress Corticon
- 2014 Roadmap

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Generations of Programming Languages

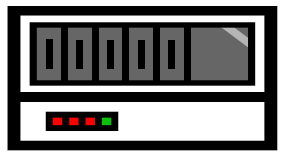
Model-Driven Langs – 5GL
Visual Programming, BPM, **BRMS**…

Very High Level Langs – 4GL
SQL, PowerBuilder, Progress **ABL**…

High Level Langs – 3GL
C, C#, Java, **JavaScript**…

Assembly Language – 2GL

Machine Language – 1GL



Programmers

Citizen Developers

AD&D

Progress Pacific

Rollbase

OpenEdge

Going back to our roots!

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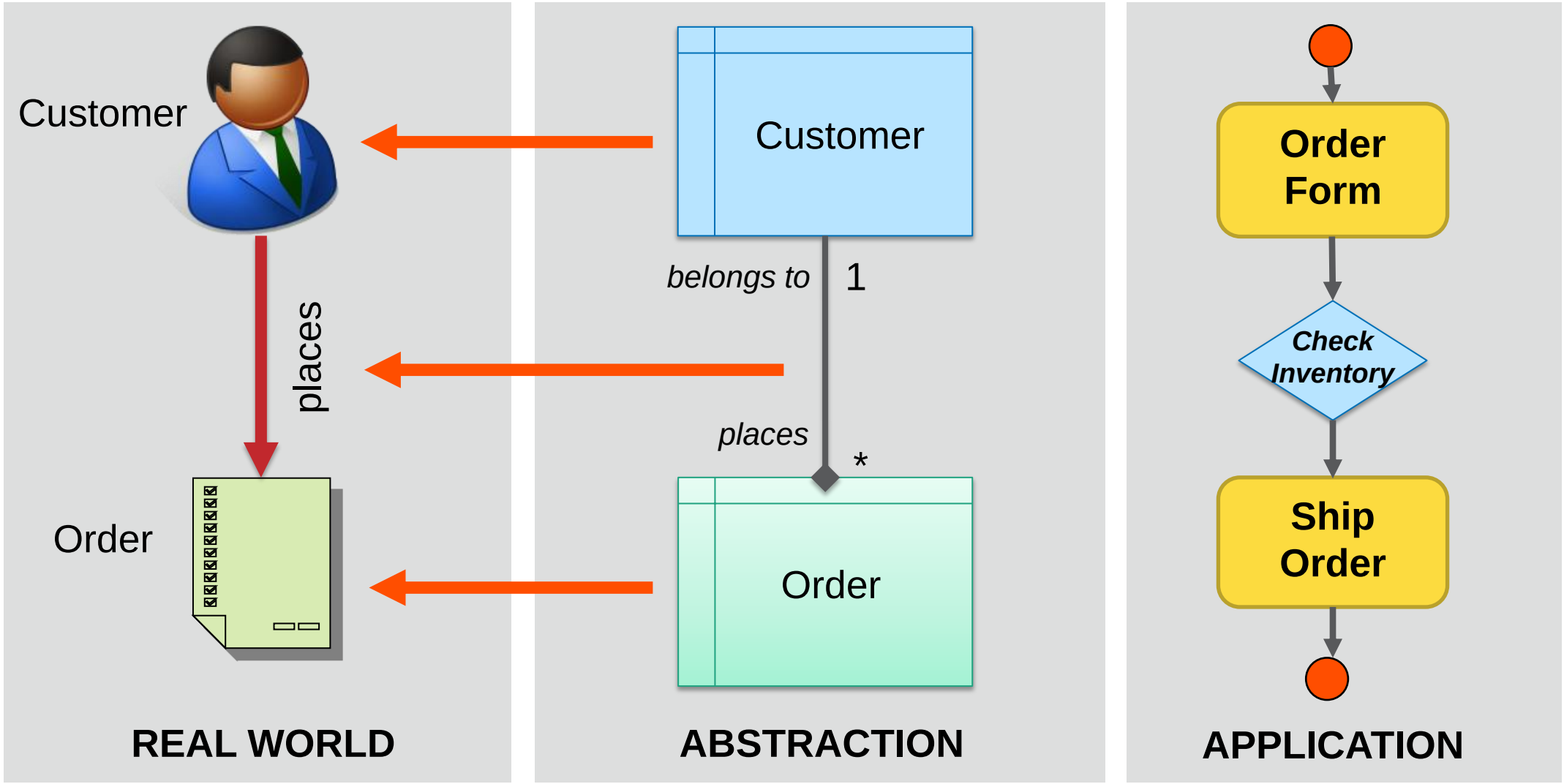
What Are Models?



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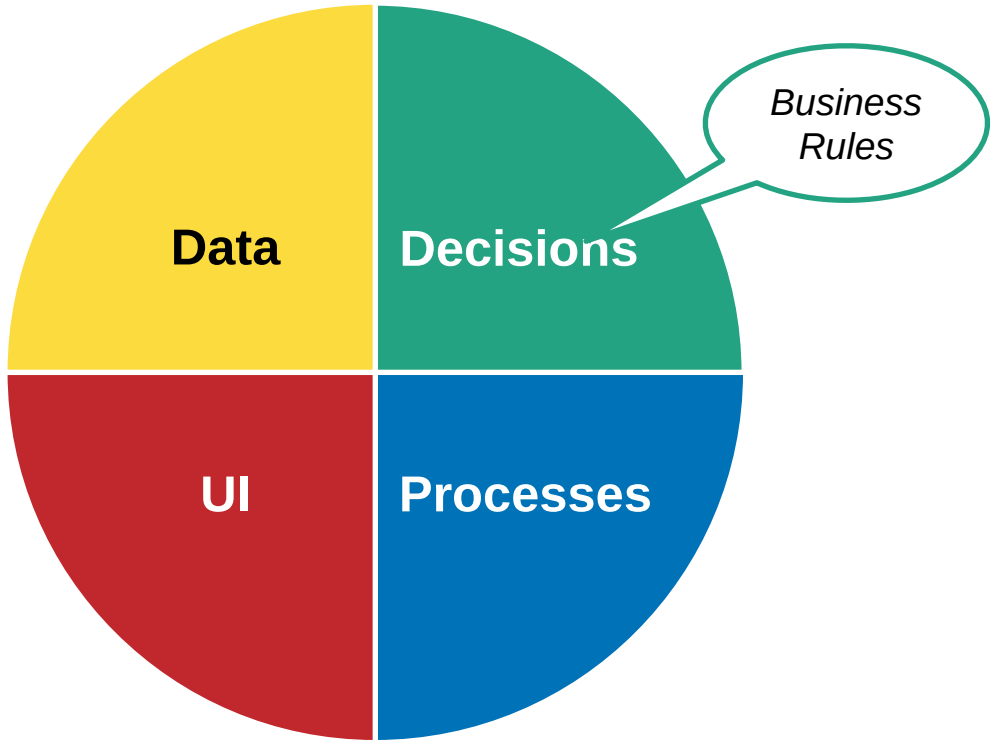
Application Modeling



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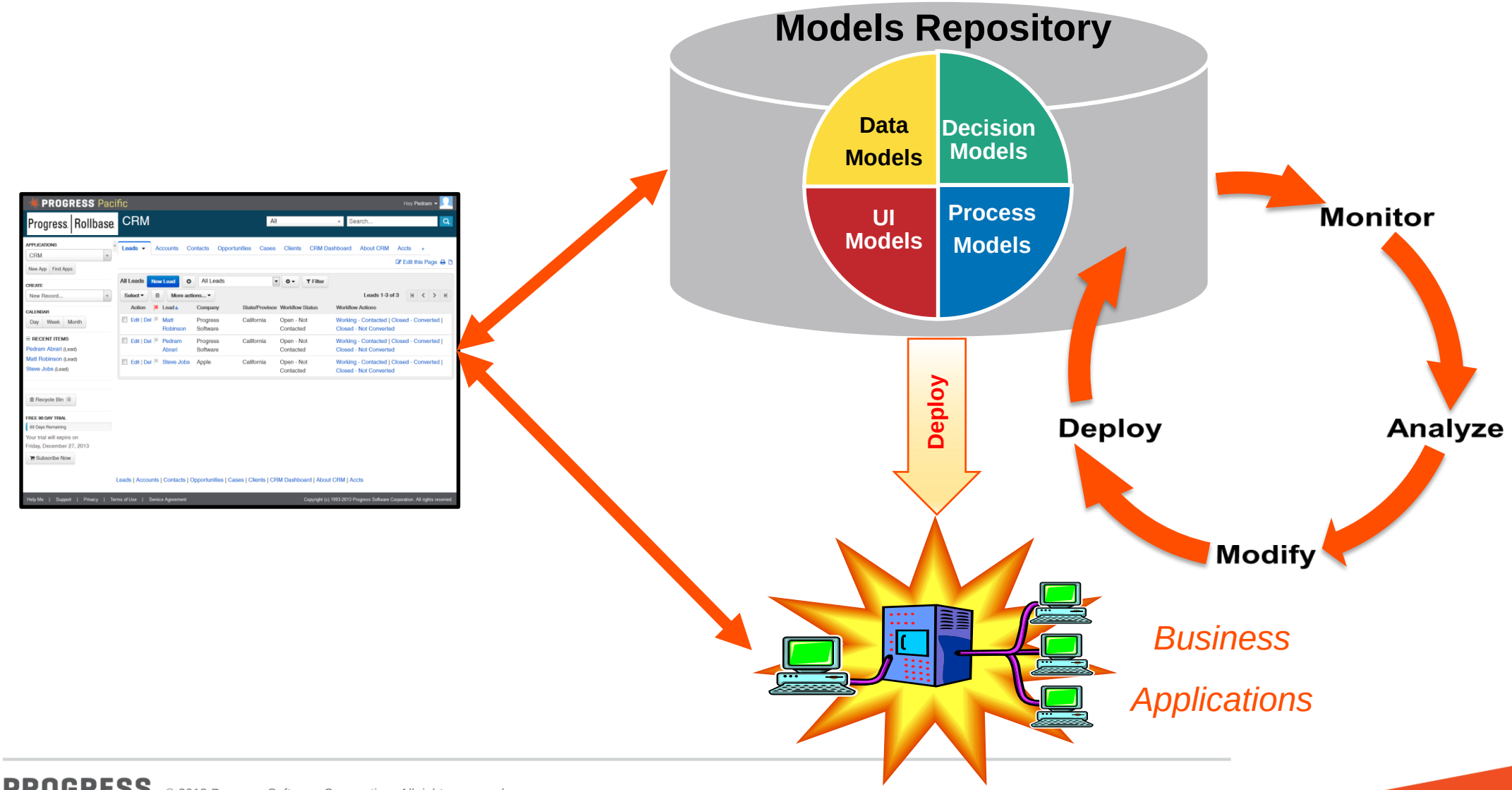
A Model-Driven Architecture



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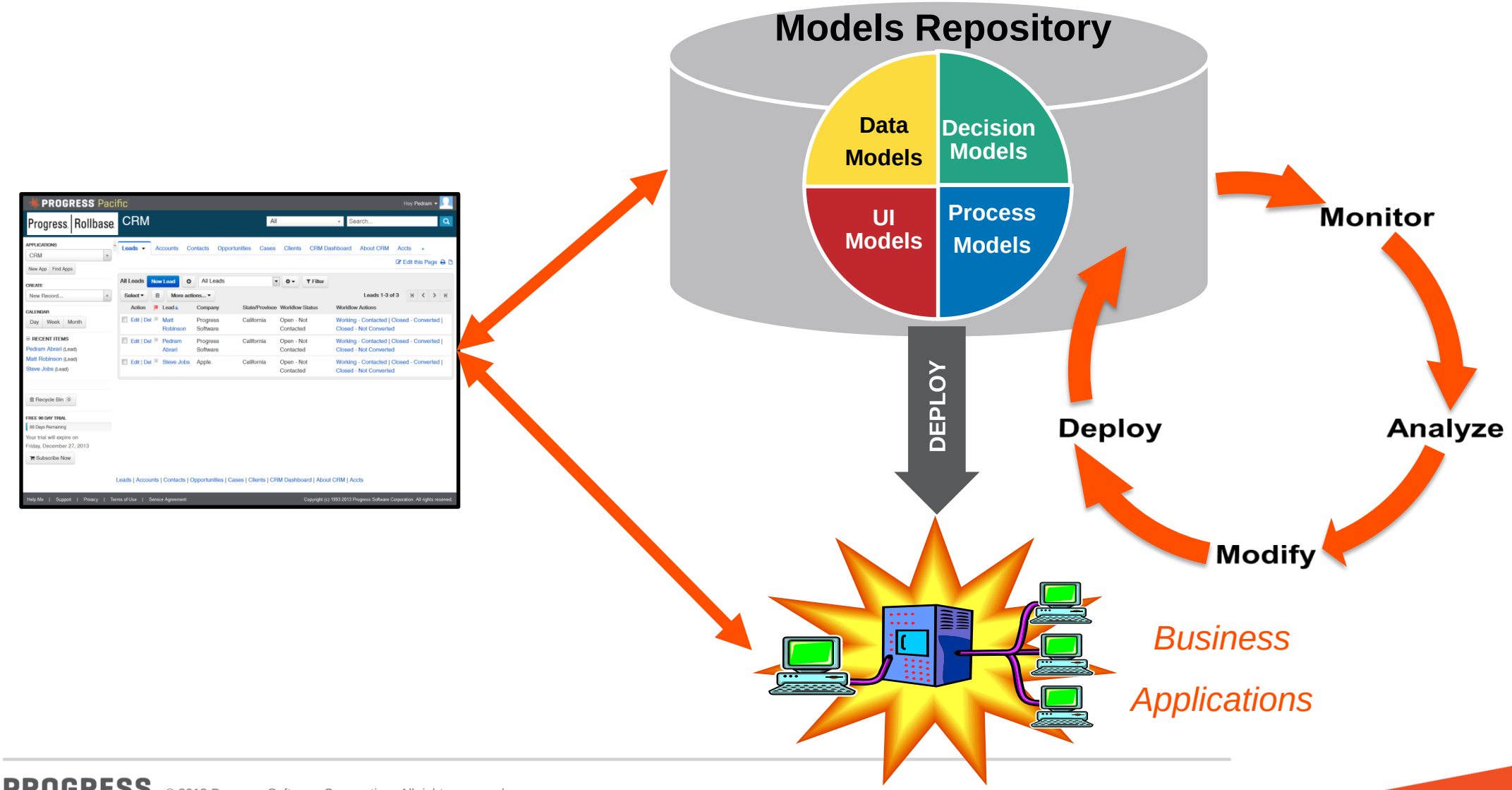
A Model-Driven Architecture



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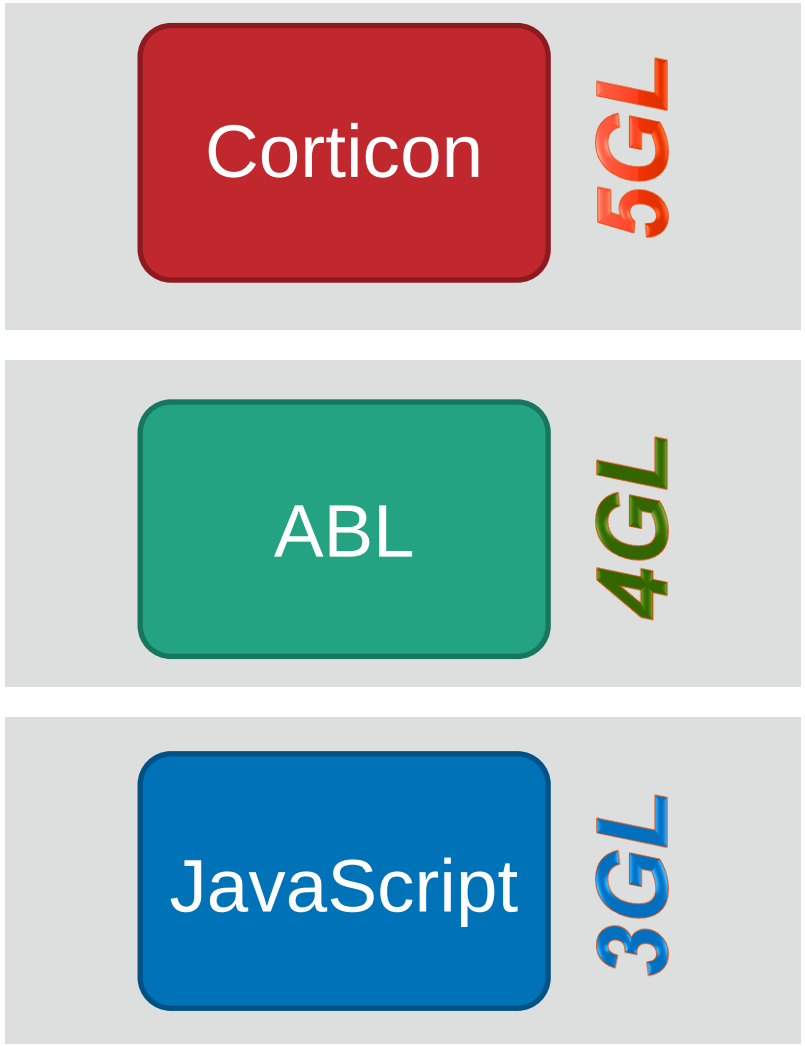
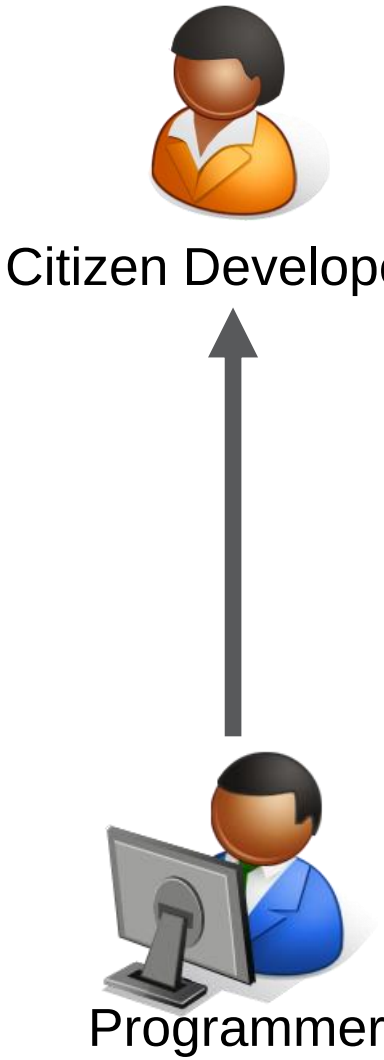
Progress Rollbase
Server-side Business Logic





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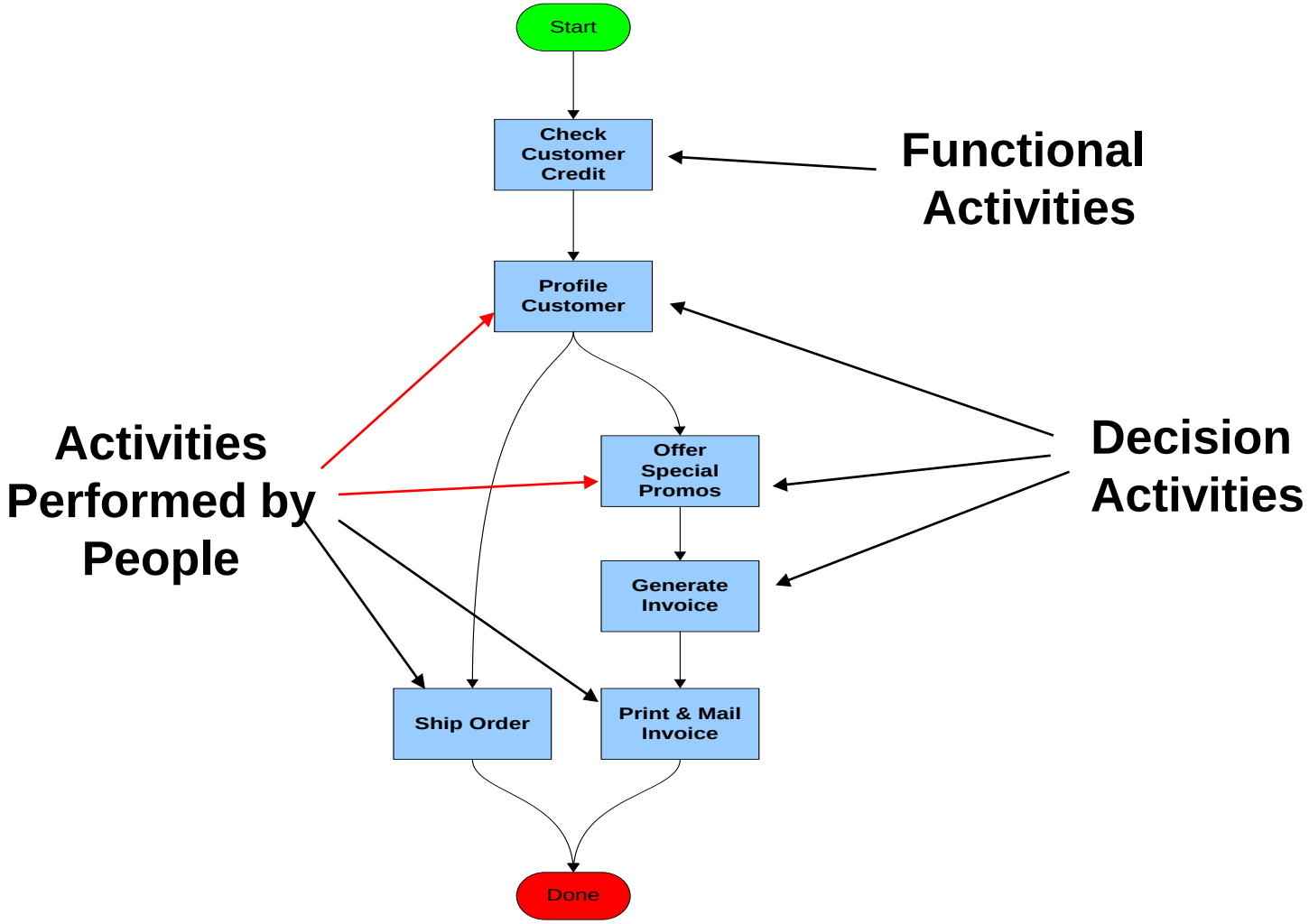
Business Activity Types in a Typical Business Process



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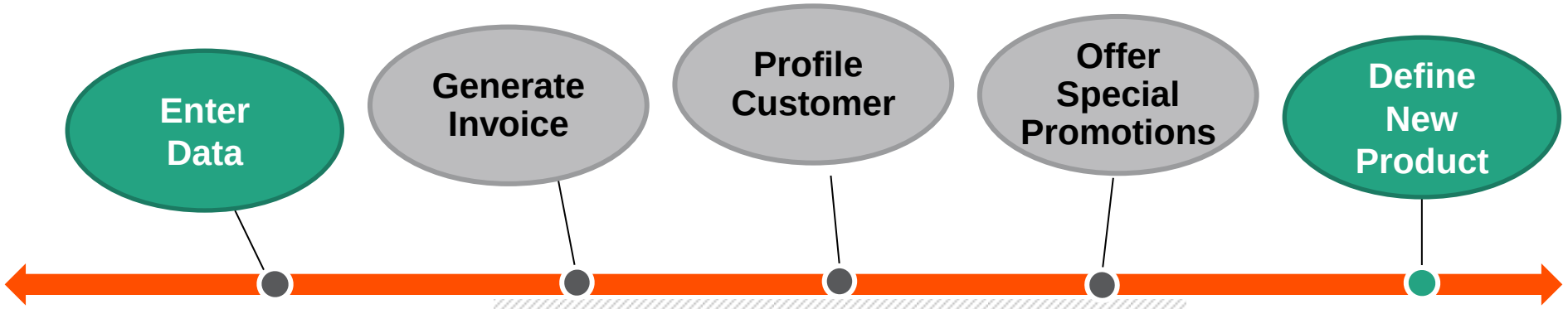
Decision Activities Resist Traditional Automation



	Rote Decisions	*Business Decisions*	*Creative Decisions*
Time Span	Sub-second	Sub-second to Days	Days to Months
Performed By	Machine	Machine or Person/Team	Person/Team

Up to 70% of core business processes are business decisions

Internal Study based on IBM IAA Framework

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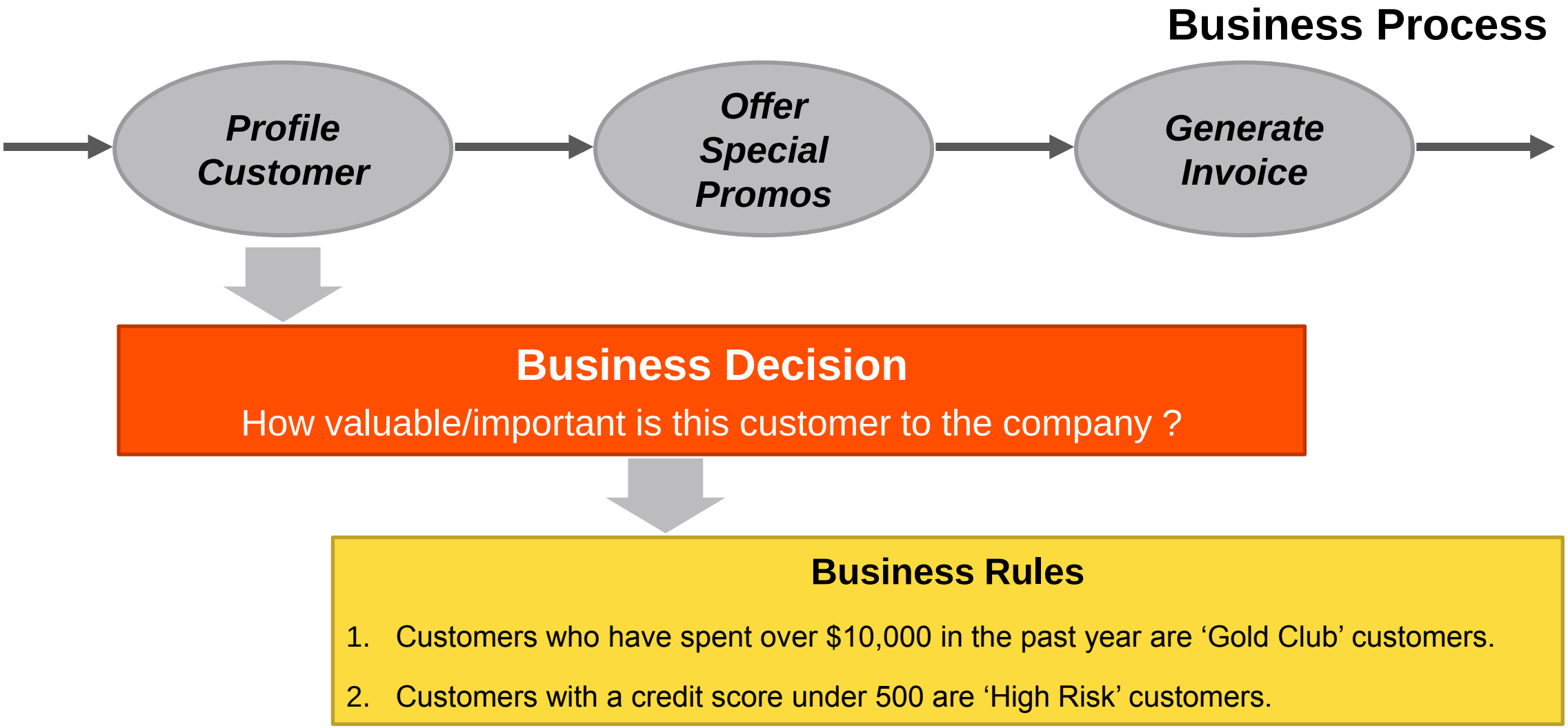
Business Decisions Are Composed of Business Rules



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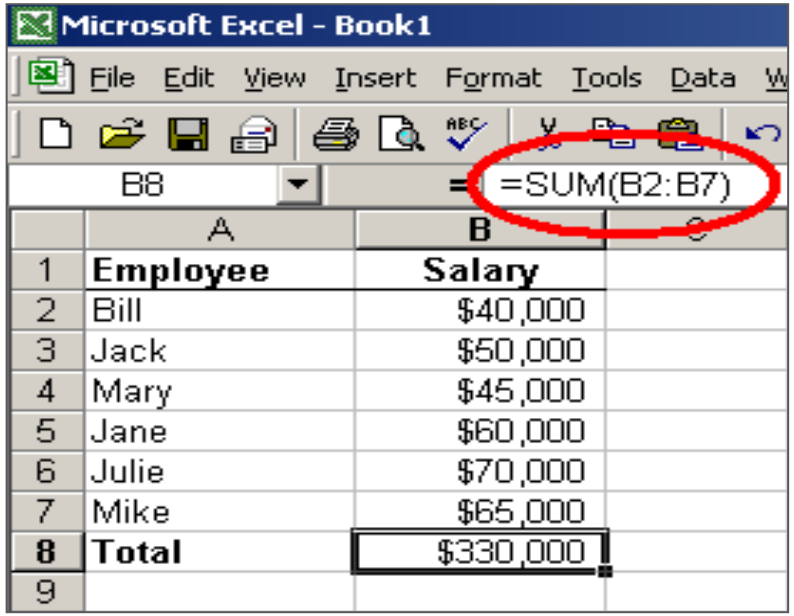
Declarative vs. Procedural Paradigms

Declarative Paradigm

- **What Needs to be Done**
  - Business Rules Captured as a Set of Discrete Rules
- Spreadsheet Example: Sum



	A	B
1	**Employee**	**Salary**
2	Bill	$40,000
3	Jack	$50,000
4	Mary	$45,000
5	Jane	$60,000
6	Julie	$70,000
7	Mike	$65,000
8	**Total**	$330,000
9		

Procedural Paradigm

- **How to Do It**
  - Business Rules Hard-coded into Application Logic
- Code Example: Sum

```
Integer i
Float tmp


tmp = 0
For i = 2 to 7
        tmp += B[i]
Next I


B[8] = tmp
```

"WHAT Not HOW" ***C.J. Date***

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Progress Pacific PaaS – A Model-Driven AD&D Platform

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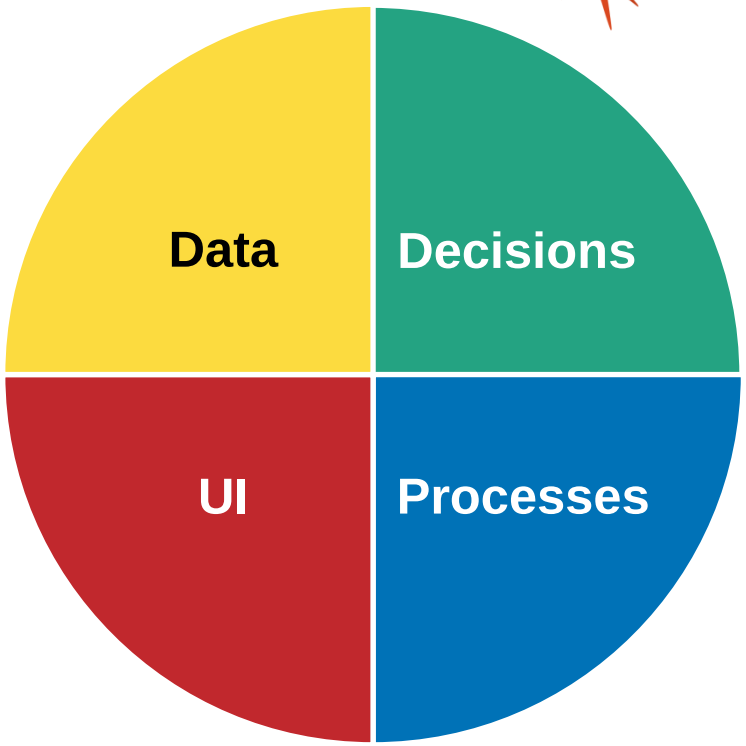

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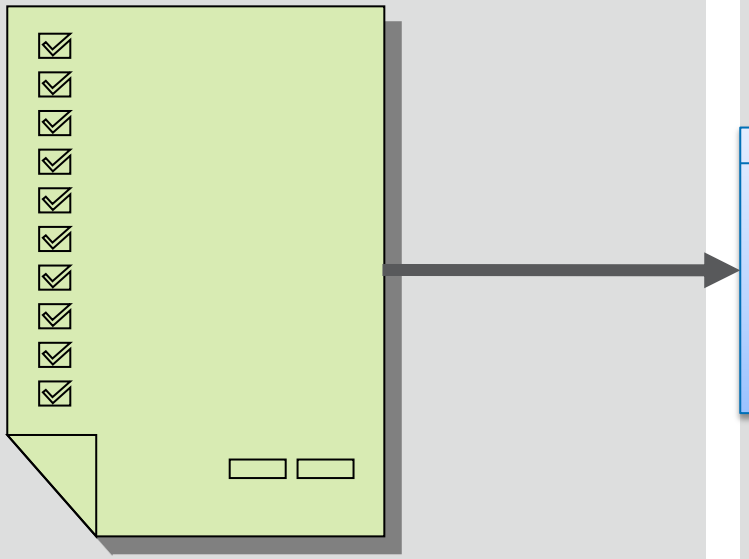
Sample App – Rollbase + Corticon
Life Insurance



Application

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Applicant

After Create

Risk Profile Applicant

After Update

Risk Classification

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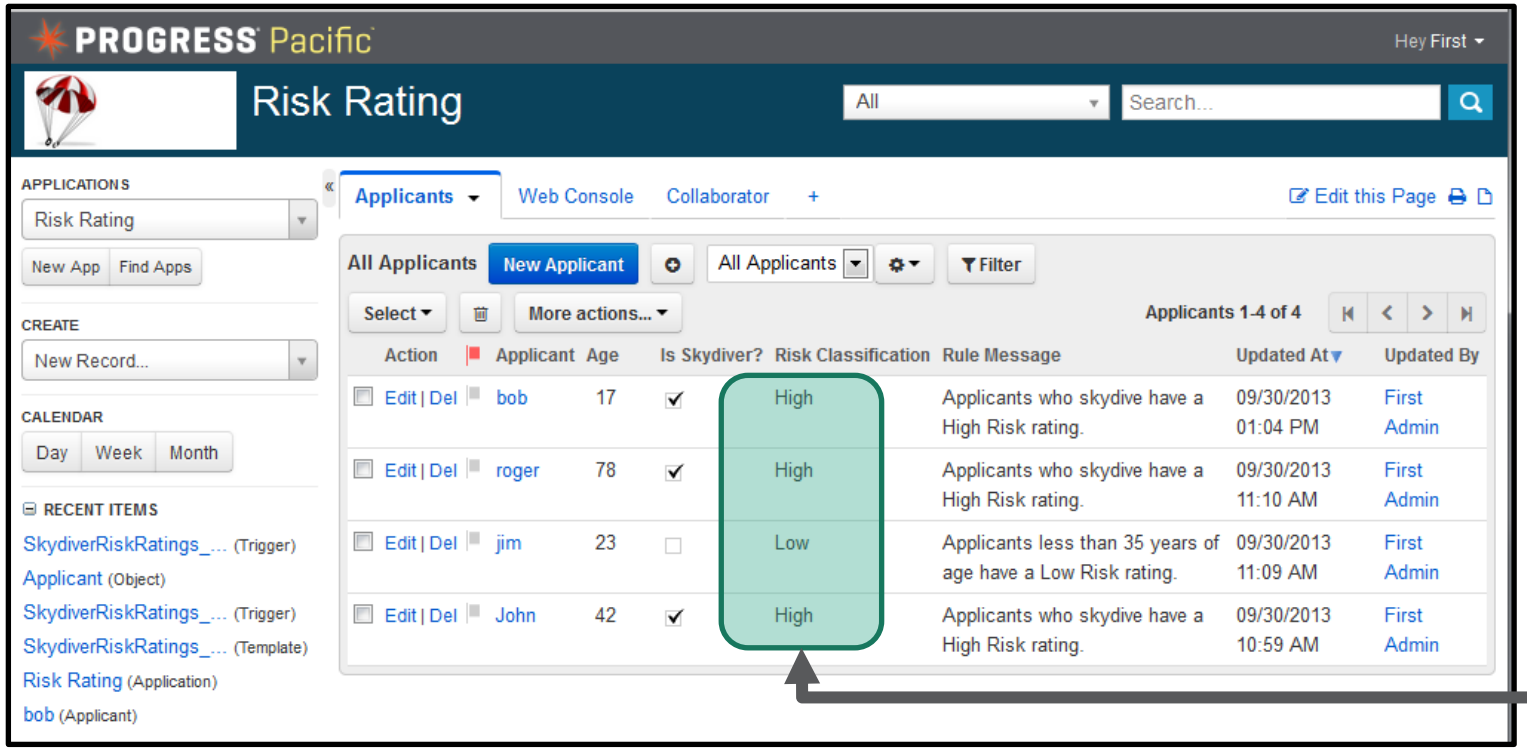
Demo

PROGRESS Rollbase



Risk Profile Applicant

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Progress Pacific 2014 Roadmap
Deeper Integration of Rollbase + Corticon

- Embedded Corticon Rule Engine within Rollbase Platform
- Share Object Model
- Decision Triggers
  - Invoked based on Object Lifecycle events
  - As standalone invocation
- Web-based Decision Modeling within Rollbase Platform
- Support for Fully Model-Driven Application Development

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Questions

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