

Benerator

Generating Performance Test Data with Benerator

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JAZOON09

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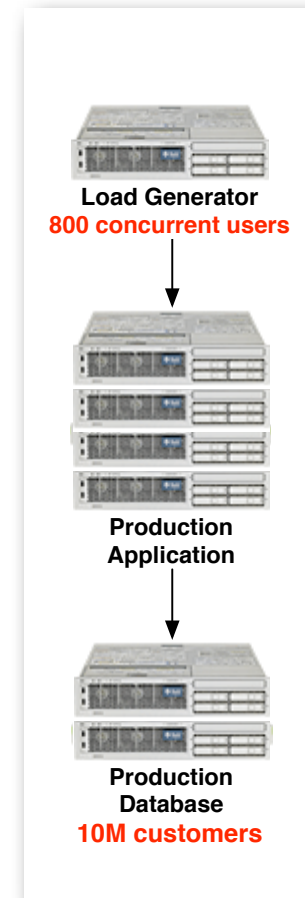
Volker Bergmann

- Freelancer
- Passionate Software Architect & Troubleshooter
- Specialized in Performance Assessment and Tuning
- 11 years of experience with enterprise application performance
- Author of Benerator and Benclipse



Performance Test Necessities

- > Have a test setup that resembles production in
 - Hard- and Software setup
 - Client load (LoadRunner, JMeter)
 - Data(base) content (production data, benenerator)
- > Neglecting any of these makes performance test results useless for production performance prediction!



dbgenerator is the leading open source tool to address an
**essential necessity of
performance testing:**

creating production-like data!

Production data

- > performance testers like testing with production data,
- > ...but face problems (e.g. for new software, outsourcing, privacy protection):
 - **availability** and
 - **applicability** of production data
- > Production data always reflects the past:
 - No scenario testing
 - No worst-case checks
 - No fuzz tests
- > but performance testing always target at predicting future performance!

Data generator requirements

> Must-haves

- passing complex validation
- customizability / extendability
- performance

> Desirable

- production data export + anonymization
- early applicability in projects (little initial effort)
- little maintenance effort with ongoing implementation

> Nice to have

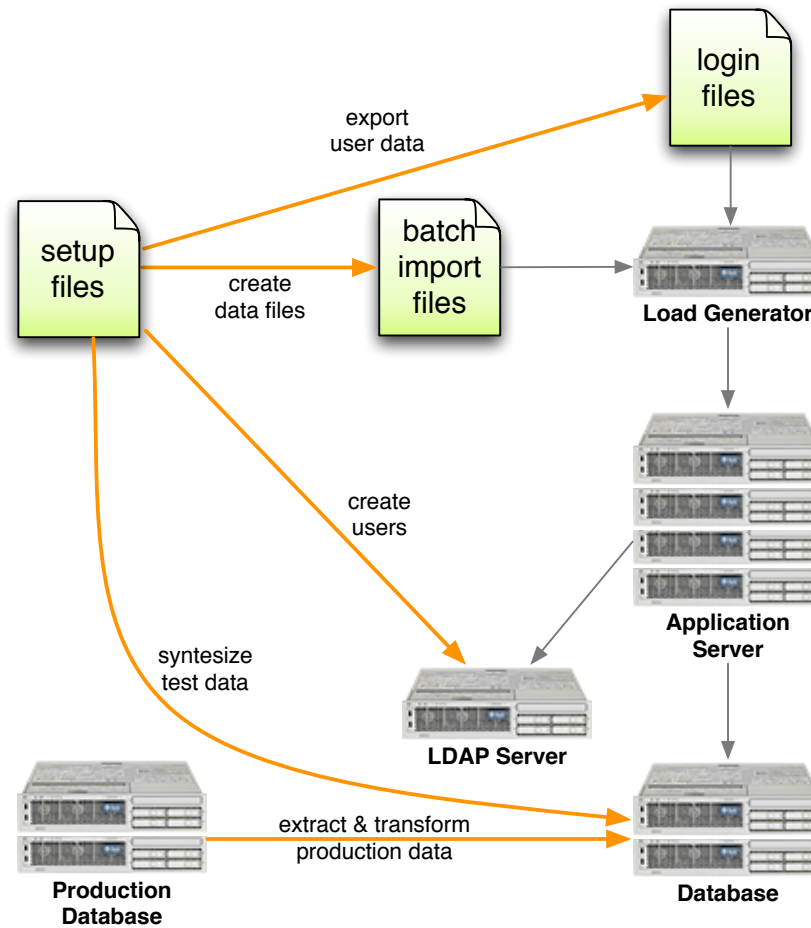
- platform independence
- reusability among companies and technologies

Databene Benerator

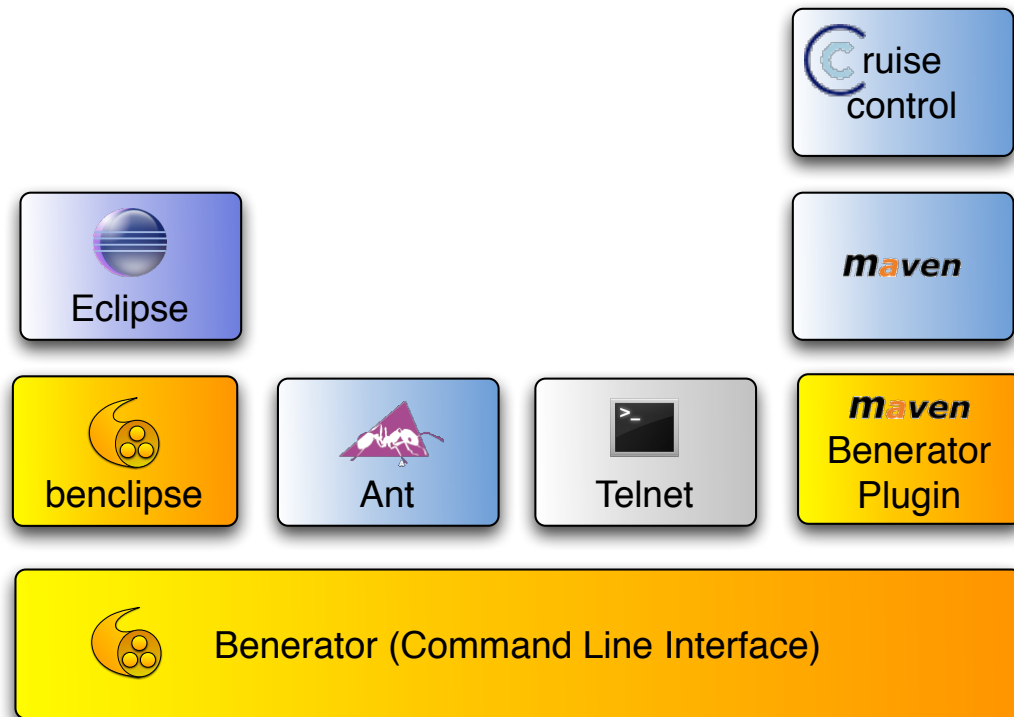


- > Is the leading **open source** test data generator
- > Fulfills all the requirements above
- > available at <http://databene.org/databene-benerator>
- > **Reduces data definition effort from weeks to days!**
- > Is easily extended for new system types and file formats
- > Has an Eclipse Plugin: Benclipse (<http://databene.org/eclipse/updates/>)

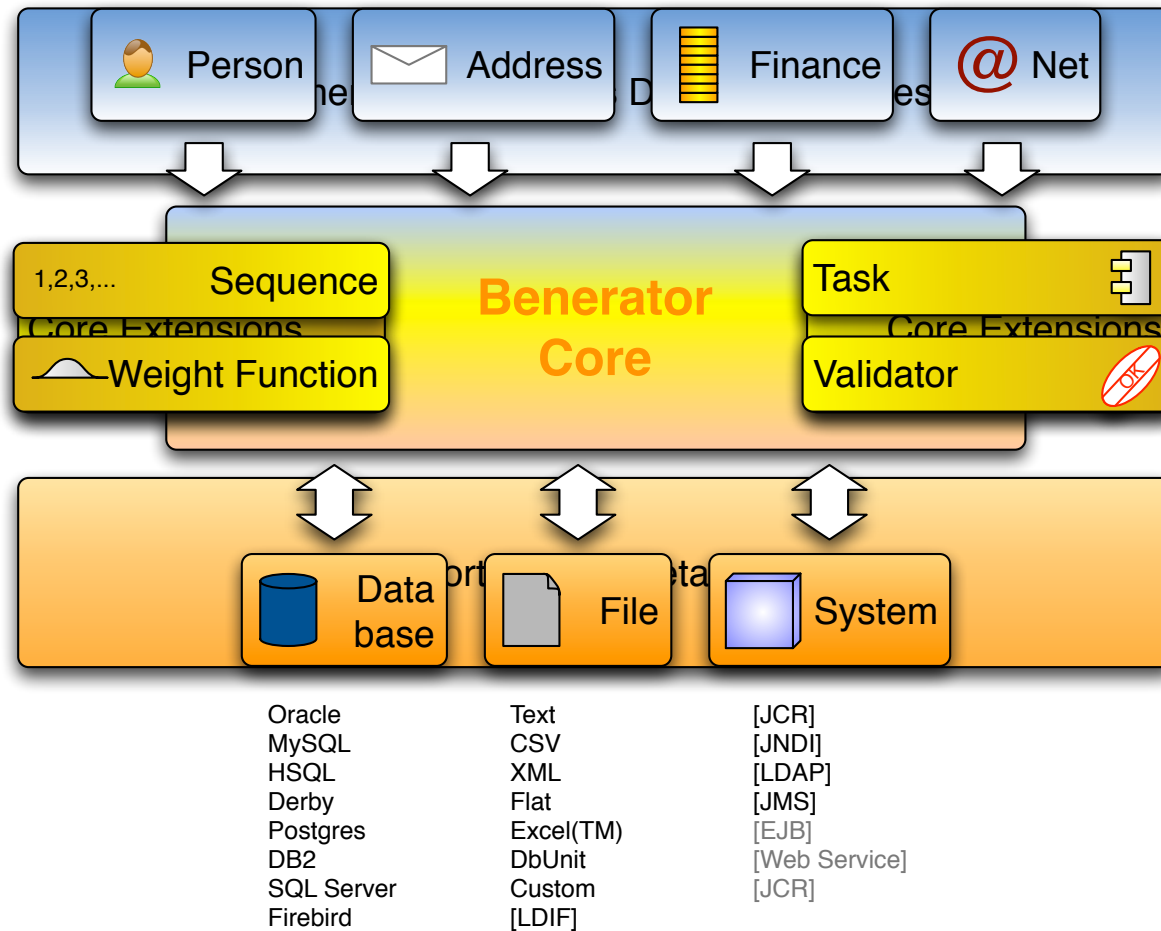
How Benerator can help you



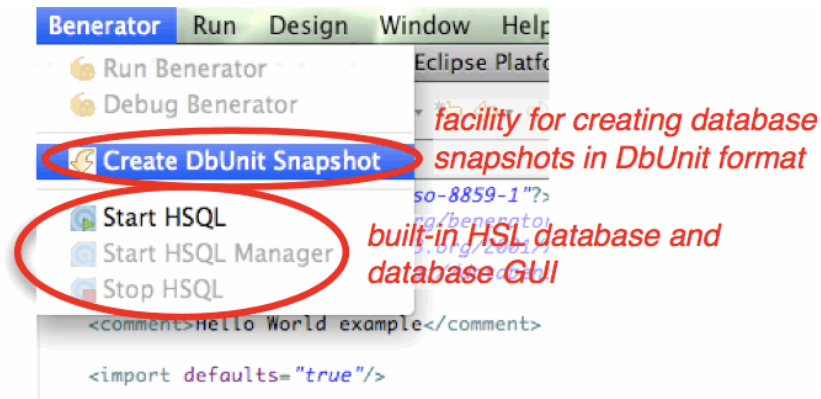
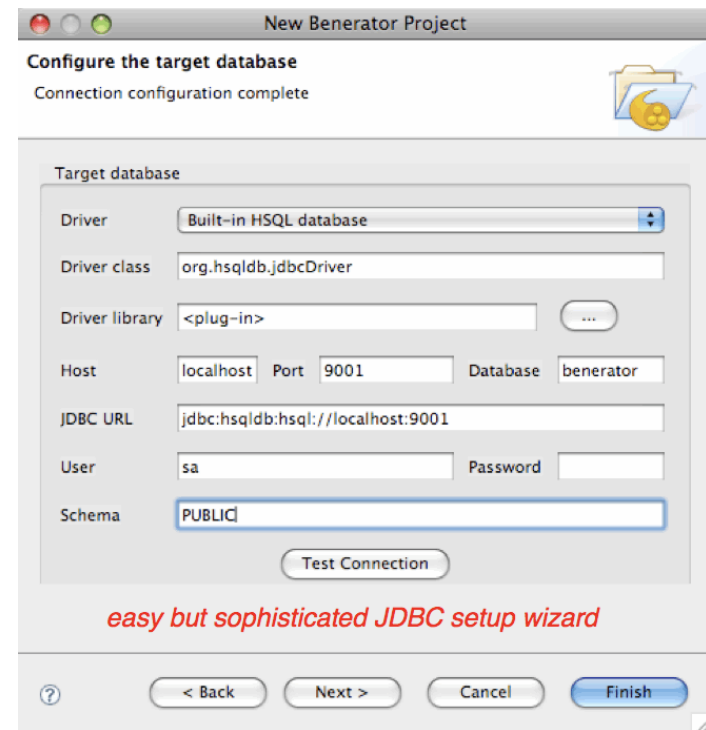
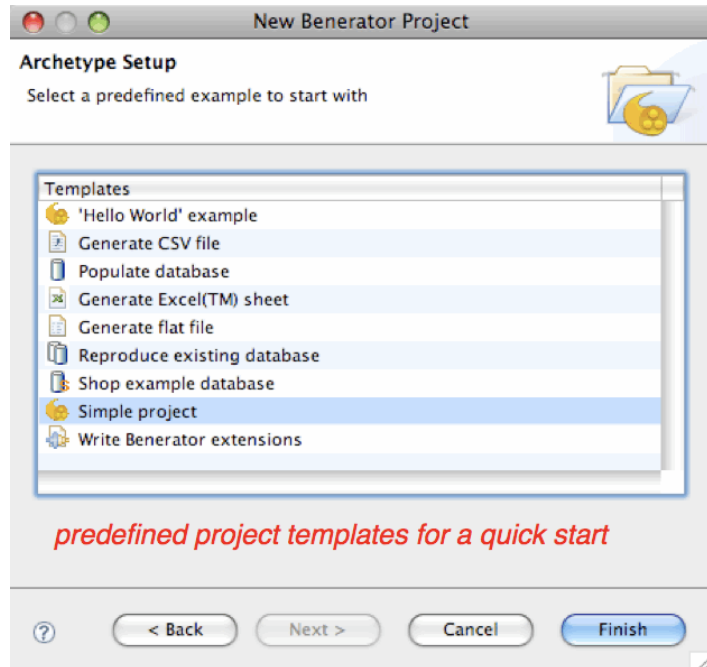
user interfaces



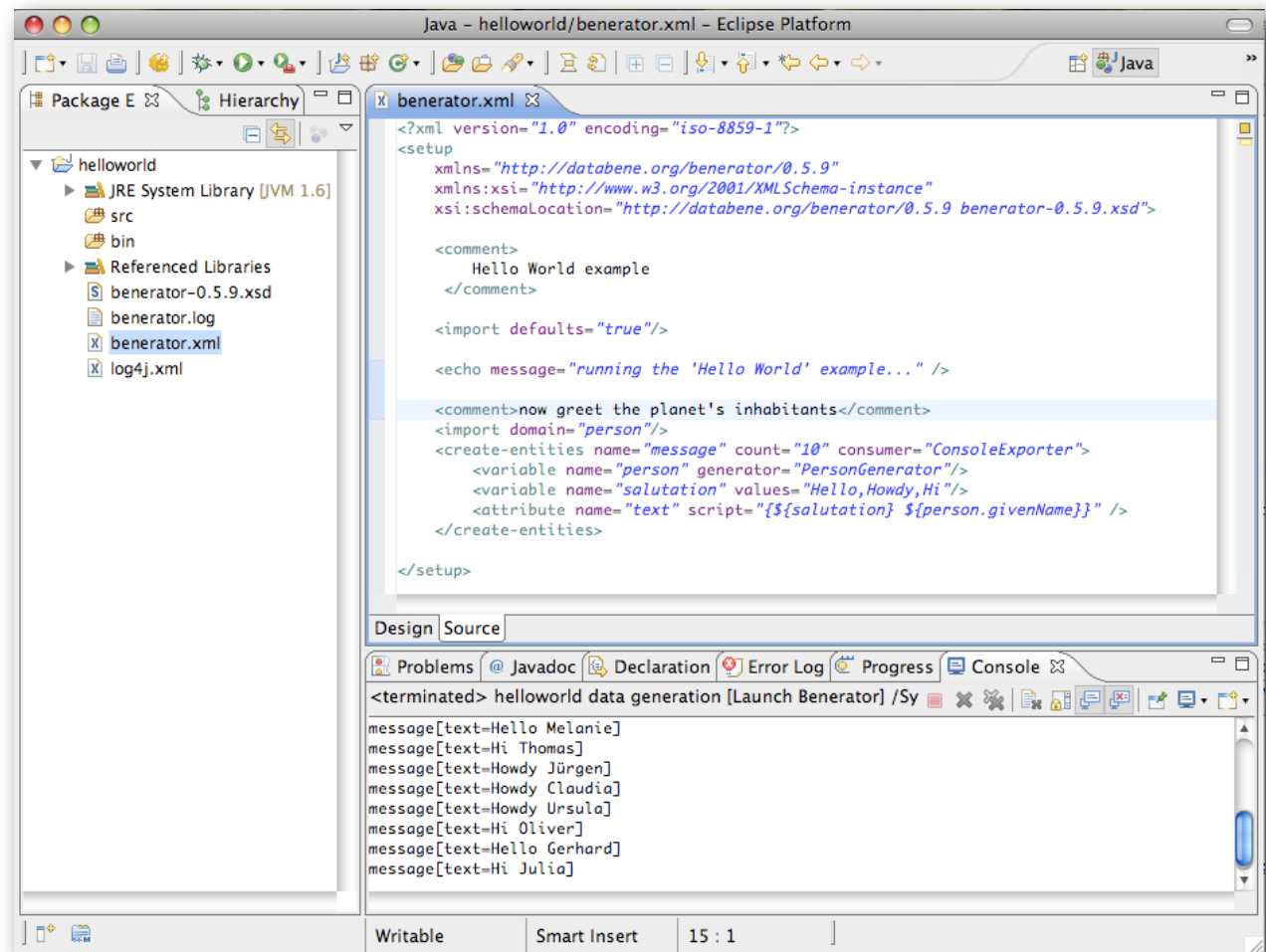
benerator architecture



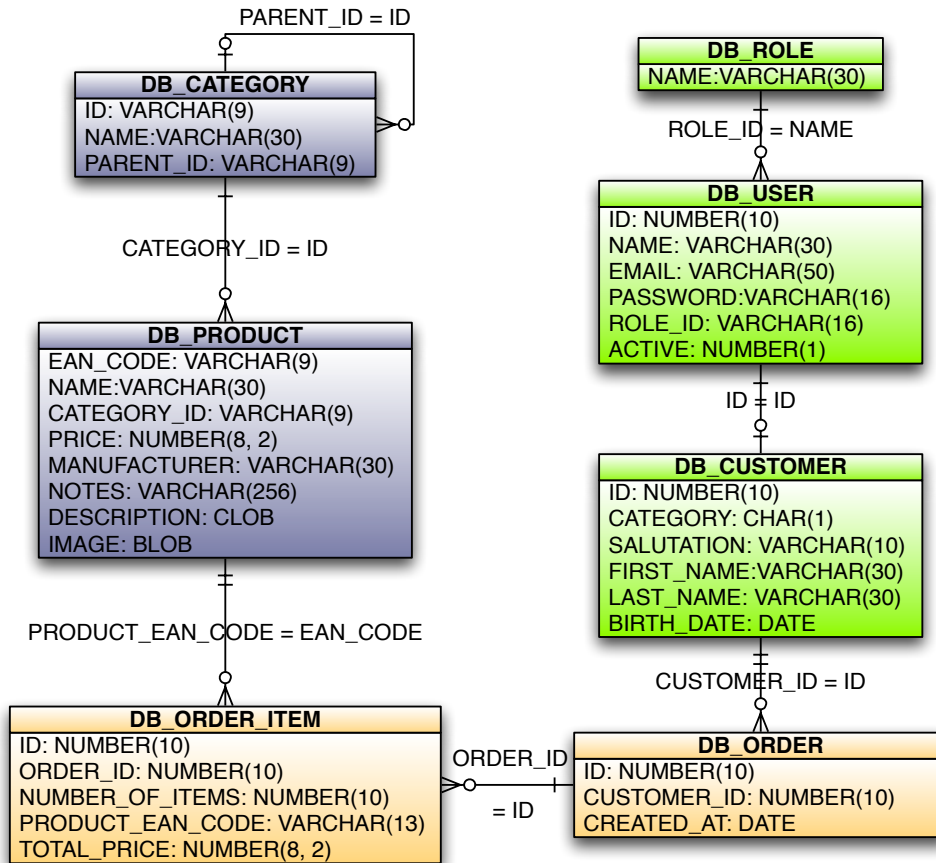
DEMO Benclipse GUI



DEMO Hello World



DEMO Shop Database & Domains



> Modify the file
shop.development.properties as
you need, e.g.:

locale=it
country=IT

DEMO Extending Benerator

The screenshot shows an IDE window titled 'benerator.xml' containing the following XML code:

```
<?xml version="1.0" encoding="UTF-8"?>
<setup xmlns="http://databene.org/benerator/0.5.9-SR1"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://databene.org/benerator/0.5.9-SR1 benerator-0.5.9-SR1.xsd">

  <comment>Demonstrates how to extend benerator's interfaces for customizations</comment>

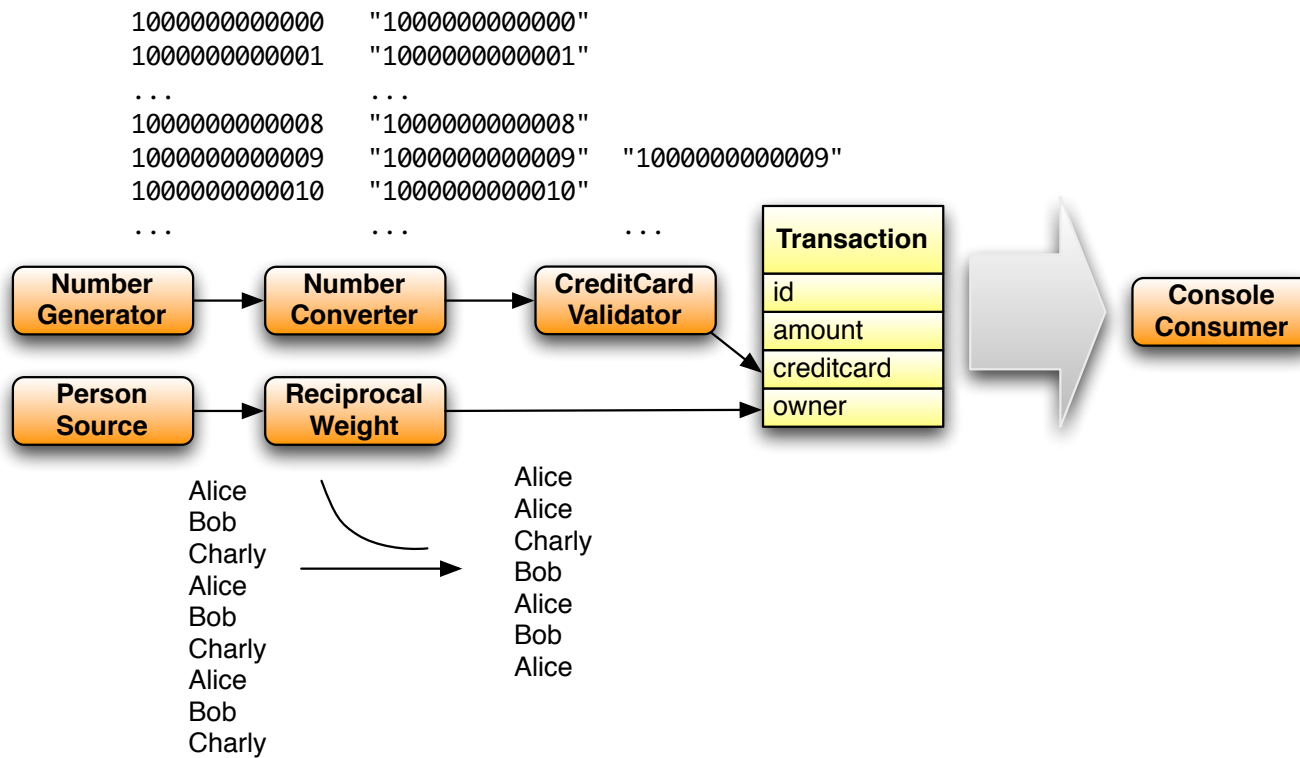
  <bean id="mysource" class="com.my.PersonSource"/>

  <create-entities name="Transaction" count="100" consumer="com.my.ConsoleConsumer">
    <variable name="person" source="mysource" distribution="com.my.ReciprocalWeight"/>
    <id name="id"/>
    <attribute name="amount" type="int"/>
    <attribute name="creditcard"
      generator="com.my.NumberGenerator(1000000000000)"
      converter="com.my.NumberConverter('0000000000000000')"/>
    <attribute name="owner" script="{{person.firstname}}"/>
  </create-entities>
</setup>
```

Below the XML editor, the 'Console' tab is active, showing the output of the benerator execution:

```
<terminated> extend data generation [Benerator] /System/Library/Frameworks/JavaVM.framework/Versions/1.6/Home/bin/java (2
Transaction #93 charged $2 from credit card 1000000000000 of Alice
Transaction #94 charged $7 from credit card 10000000000934 of Charly
Transaction #95 charged $6 from credit card 10000000000942 of Bob
Transaction #96 charged $5 from credit card 10000000000959 of Bob
Transaction #97 charged $9 from credit card 10000000000967 of Charly
Transaction #98 charged $8 from credit card 10000000000975 of Bob
Transaction #99 charged $6 from credit card 10000000000983 of Alice
Transaction #100 charged $6 from credit card 10000000000991 of Alice
```

Demo explained: Extending Benerator



future work

- > establish benerator as THE ONE open source test data generation platform
- > grow an ecosystem of domain plugins
- > generating JavaBeans, calling EJB services
- > adding load generator features
- > going professional with consulting and add-ons
- > finding cooperators

Thanks for your attention!

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