

AN OBJECT ORIENTED APPROACH TO VALIDATIONS

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@elegant_chaos

CF

CF.Objective()

Who Am I?



CF

CF.Objective()

The Problem

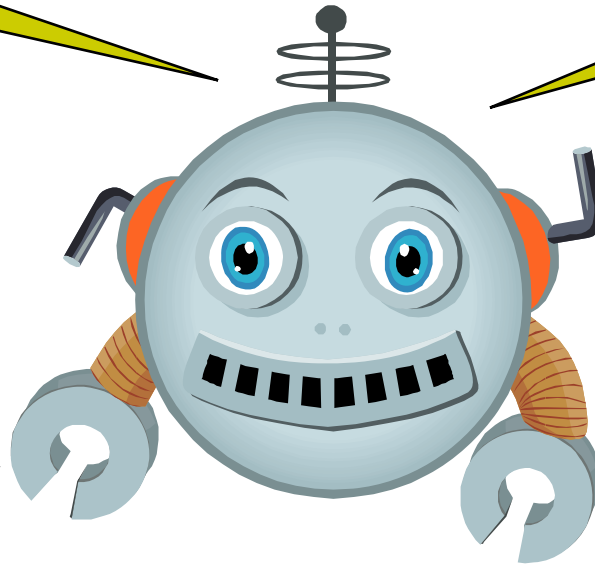
CF

CF.Objective()

We Need Validations

I need a First Name!

**My Salary must
be a number!**



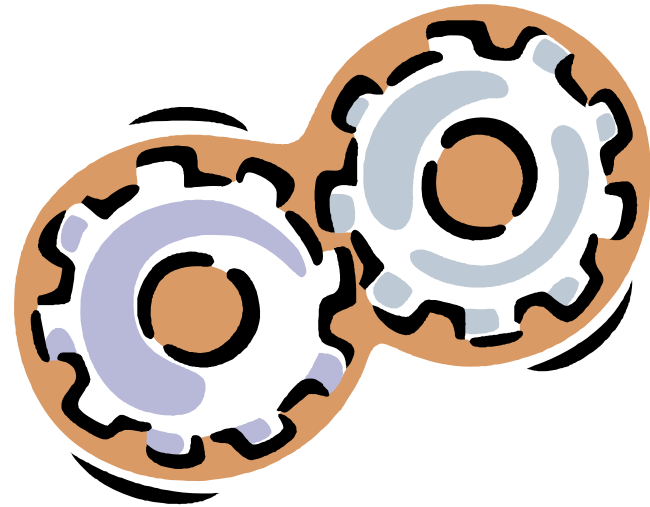
**I must belong to a
User Group!**

Where, Oh Where?

Client Side

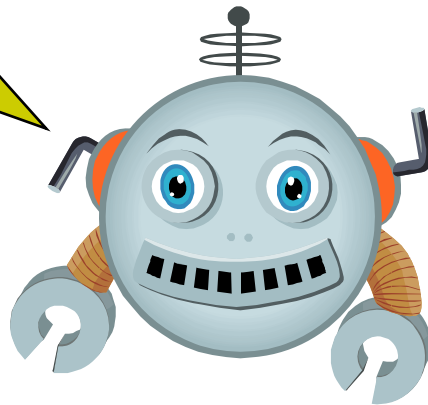


Server Side



Business Rules are Consistent, Implementations are Not

First Name is
Required



First Name is
Required

```
$("FirstName").val().length > 0
```

```
Len(getFirstName()) GT 0
```



We Have to Do It Time and Again!

***Required Information**

Billing Info

Name and address should match that of the credit card.
GIN/Reward

Shipping Info

Same as Billing

Currently Office Depot is unable to process orders online for delivery to APO/FPO, PO Box, and export addresses. Please [click here](#) for additional ordering options

Business Name:

First Name:

Contact Us

Required Fields are shown in **BOLD** with an asterisk

Enter Your Information:

Important note: If you do not wish the information in your response to be attributed directly to your company in any published material resulting from this study, please put a cross in this box

COMPANY INFORMATION

Company Name:

Address:

Principal Business Activity:

Are you an: SME or a Large Company? (Small/Medium Enterprise (SME) Criteria: Under 200 employees, under \$25m. Revenue; e.g. independent or under 25% owned by a 'large company')

Number of Employees:

Approx staff catchment: miles

Contact Name:

Position:

Tel. Number:

Fax Number:

Email address:

How long has your company been trading? years months

Do you have a parent or sister company? Yes No

If 'Yes' please provide name(s):

How long have you been in your current premises? years months

Do you own your premises? Yes No

If 'No' who do you rent your premises from?

Construction & Approx age of the premises:

First Name*

Last Name*

Please enter your full email address:

Email Address*

Site Address: http://

The next item is optional but we would greatly appreciate

What About Us? Google Friend Other

Server Type*

Please specify running comment:

Name:

Location:

Website:

Email:

Fields marked with * are required

Submit Reset

[View Guestbook](#)

Written by: [Sonu Kapoor](#) of [CodeFinger](#)

Inline Validation

Display Name:

Display Name: cheese Not Available

Display Name: cheeseburger Available!

Password Help

Create Password

How secure is your password?

Must be at least 6 characters, including a number or special character. Example: eXpr3\$\$
Check your password strength

Create Password

How secure is your password?

Must be at least 6 characters, including a number or special character. Example: eXpr3\$\$
Check your password strength

Name	Value
Name	<input type="text"/>
Sex	<input type="radio"/> Male <input checked="" type="radio"/> Female
Eye color	green <input type="text"/>
Check all that apply	<input type="checkbox"/> Over 6 feet tall <input type="checkbox"/> Over 200 pounds
Describe your athletic ability:	<input type="text"/>
Enter my information <input type="button" value=""/>	

credit card # without spaces or dashes
)
(mm/yy)

Card No:

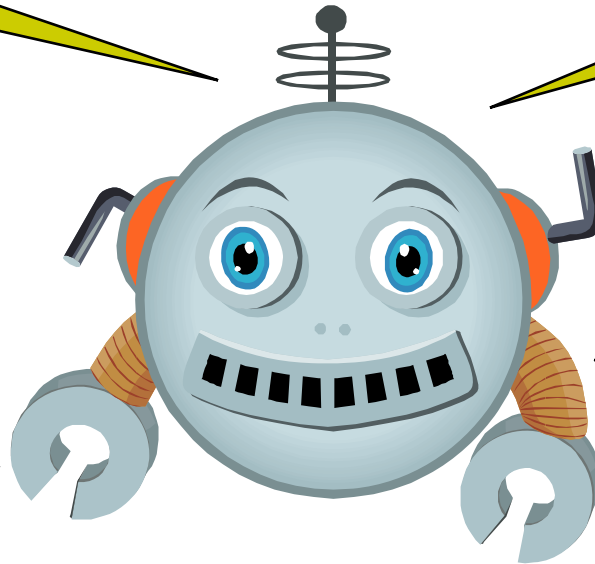
Exp:

CREATE ACCOUNT

Business Rules Change

I need a First Name!

My Salary must be a number!

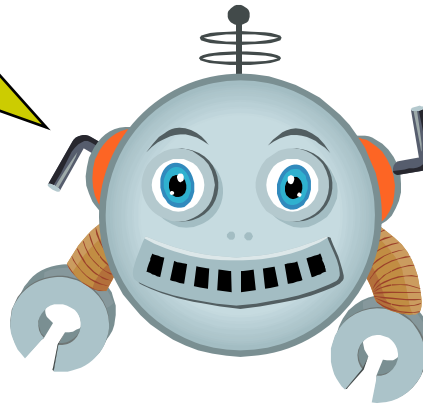


I must belong to a User Group!

If I am a member, I must have a nickname!

Implementations Change

First Name is
Required



```
$( "FirstName" ).val().length > 0
```



```
frm.FirstName.textLen > 0
```



Where Do We Put the Logic?

Service

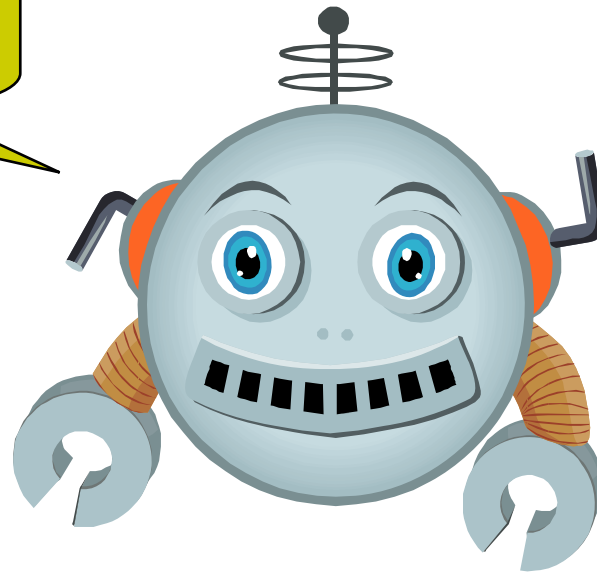
Controller

Gateway

Business Object

Global Validation Object

I can do it!



A Solution

CF

CF.Objective()

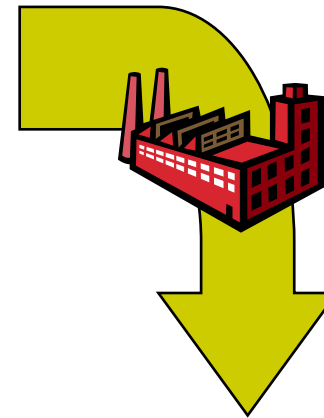
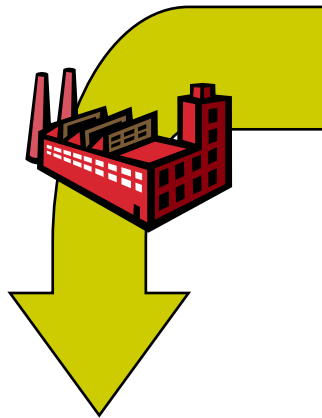
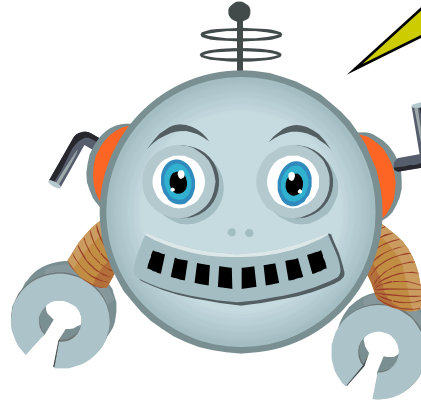
Four Objectives

CF

CF.Objective()

Code Generation

First Name is
Required



```
$("FirstName").val().length > 0
```

```
Len(getFirstName()) GT 0
```



Flexible Validations

Validation Types



Required



EqualTo



VIN



Min

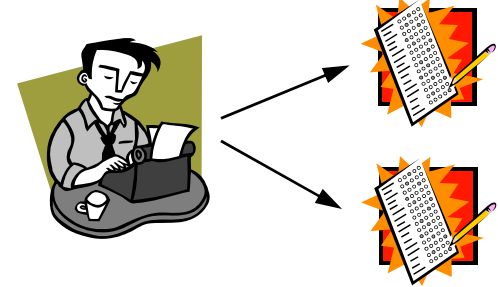


MinLength

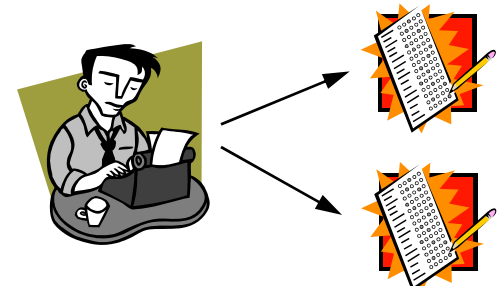


Email

JS Implementations

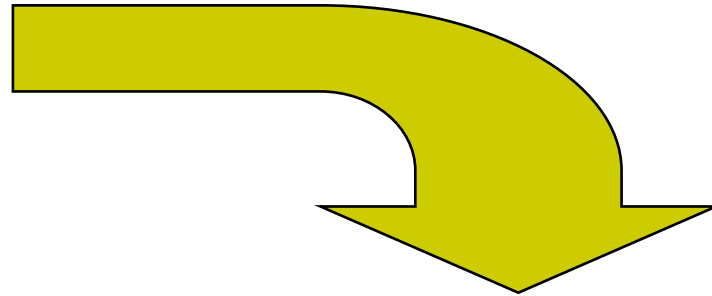
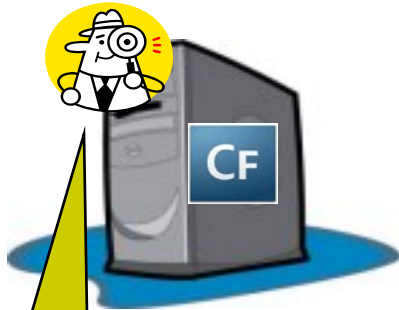


jQuery Validate Plugin



qForms / Spry / etc.

Flexible Feedback

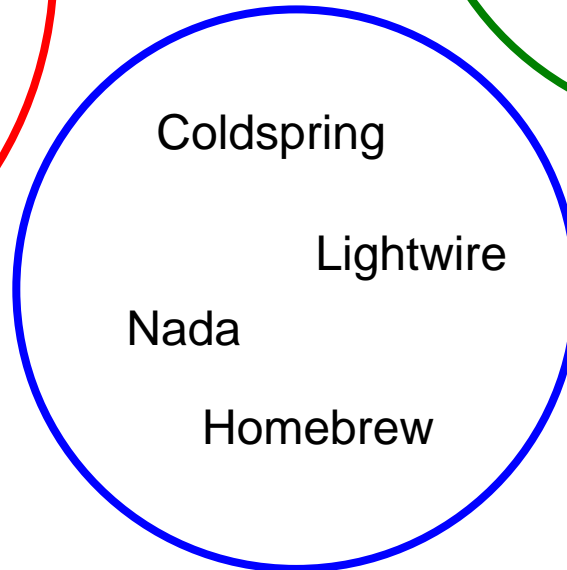
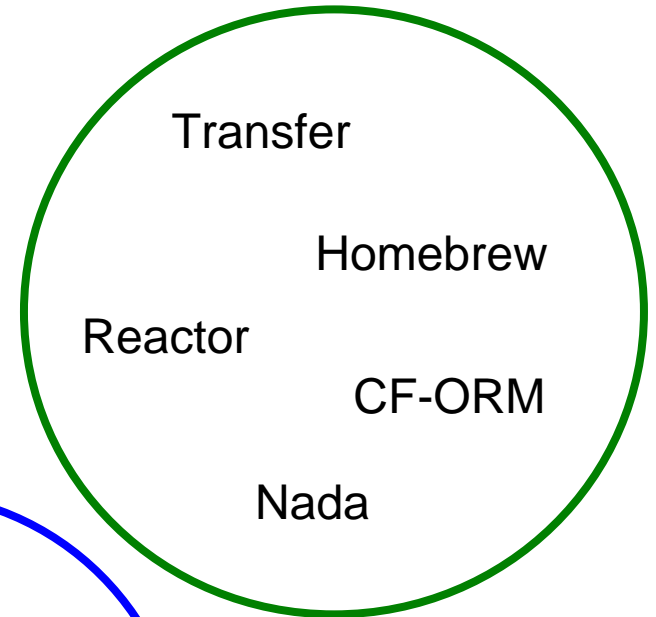
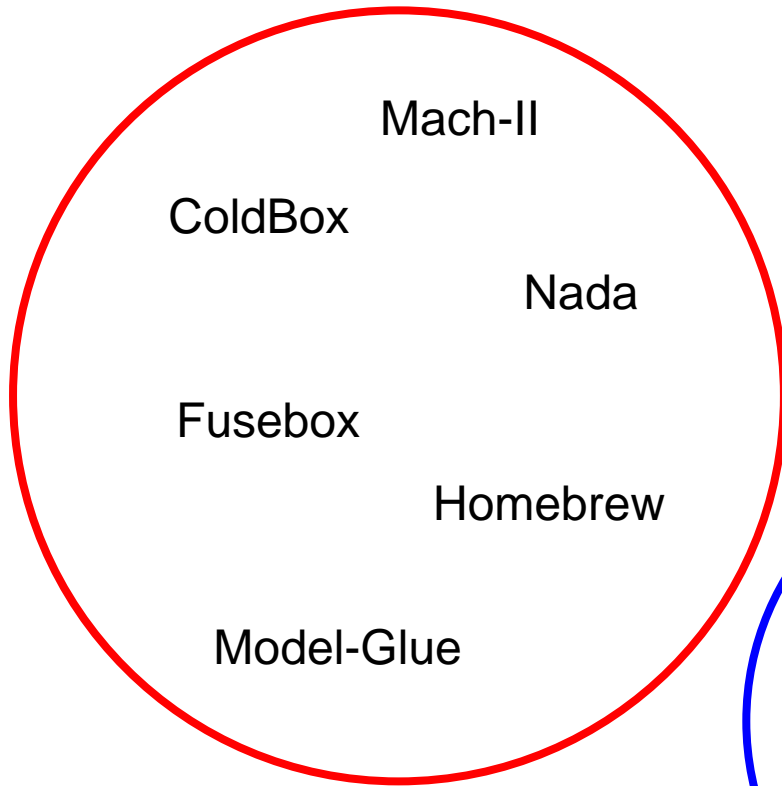


Rut Roh!



Type: Required
Field: UserName
Description: Email Address
Msg: The Email Address is Required.

Framework Agnostic



Hmm...

CF

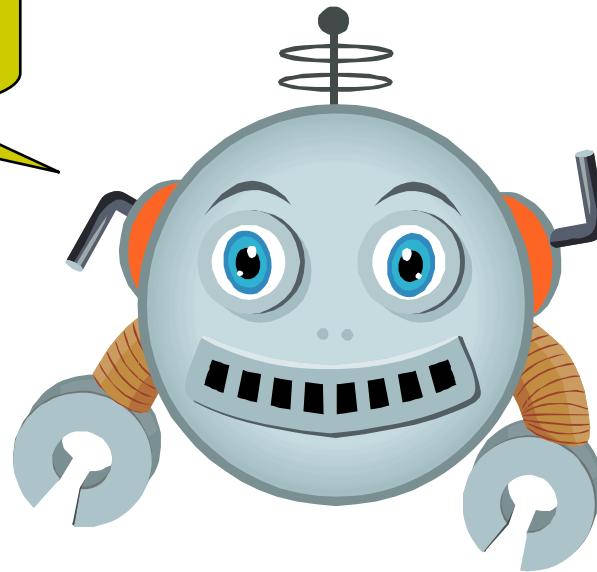
CF.Objective()

ValidateThis!

CF

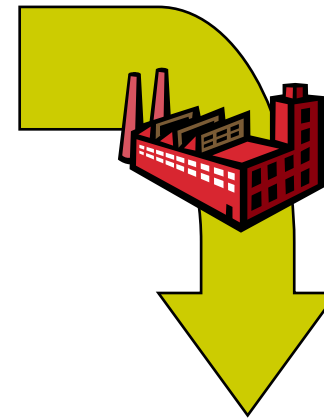
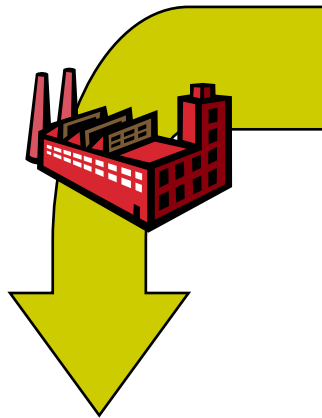
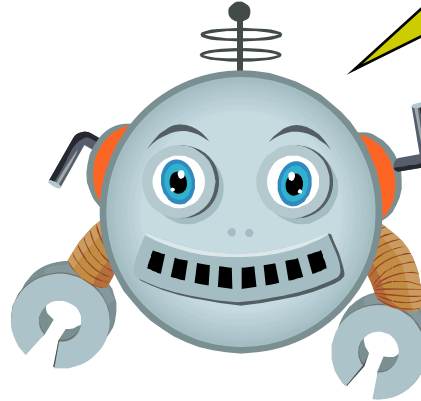
CF.Objective()

I can do it!



Code Generation

First Name is
Required



```
$("FirstName").val().length > 0
```

```
Len(getFirstName()) GT 0
```



Flexible Validations

Validation Types



Required



EqualTo



VIN



Min

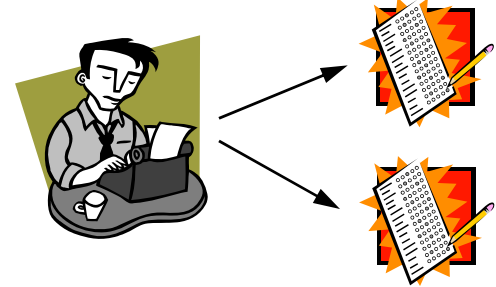


MinLength

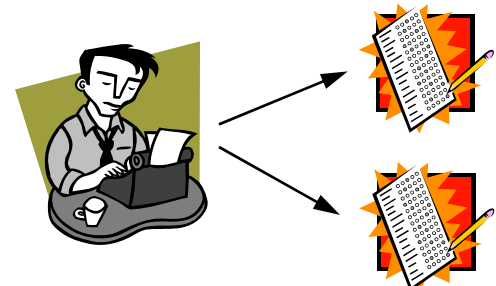


Email

JS Implementations

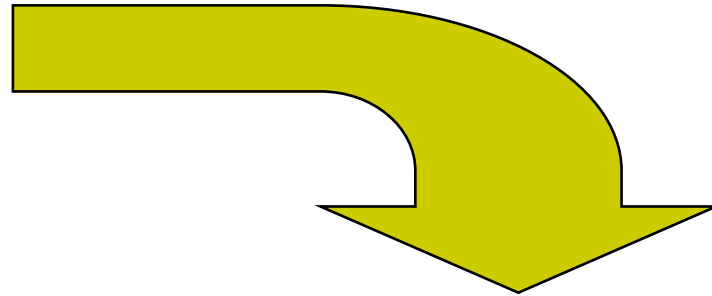
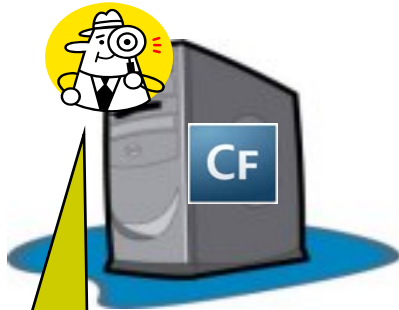


jQuery Validate Plugin



qForms / Spry / etc.

Flexible Feedback

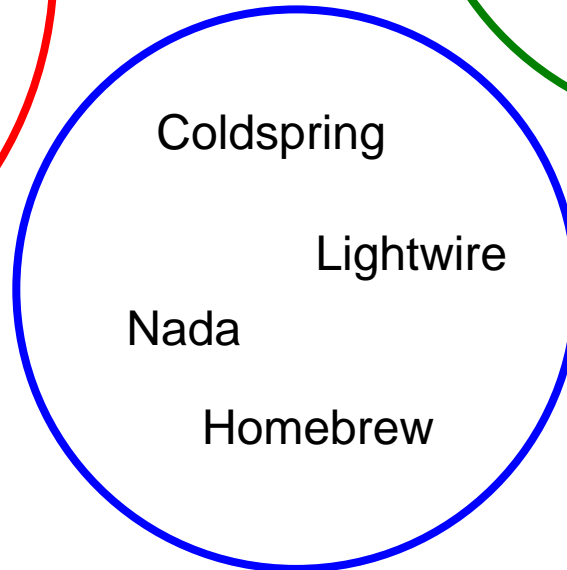
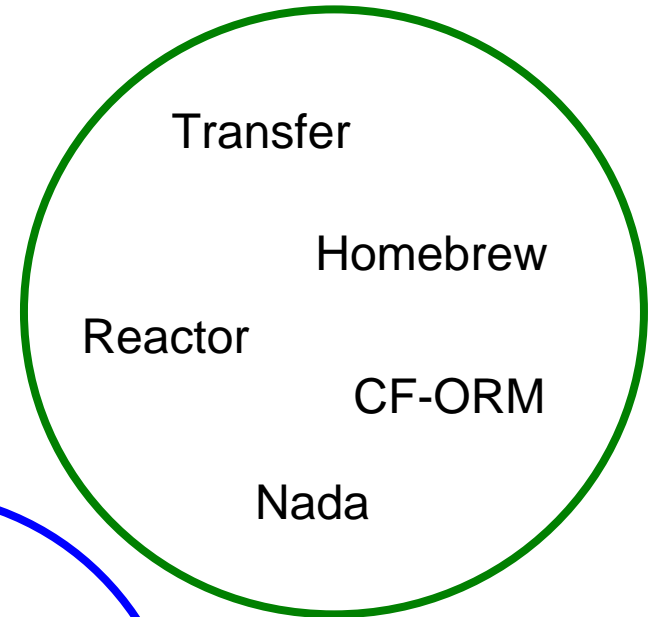
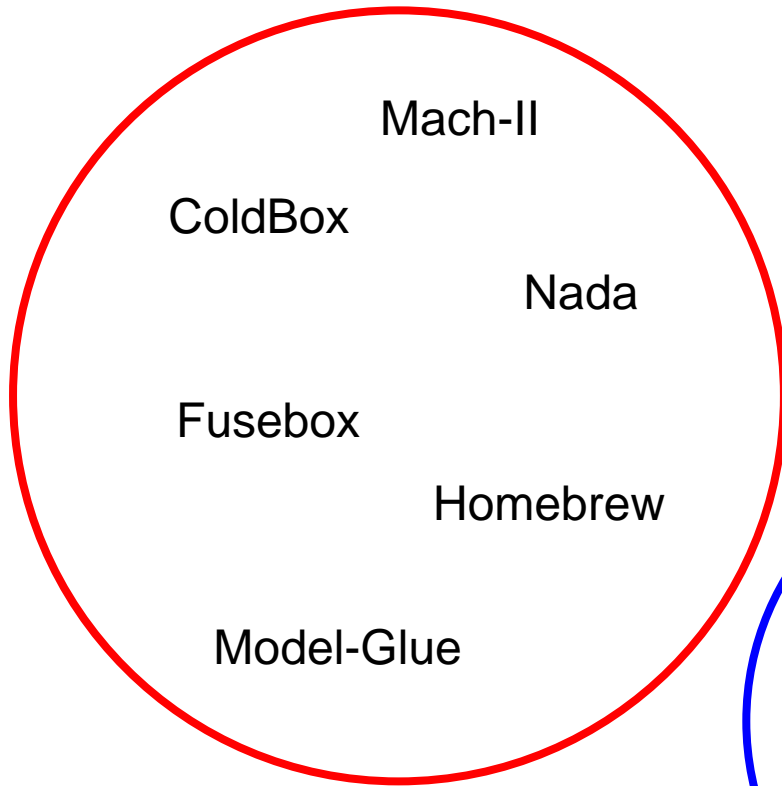


Rut Roh!



Type: Required
Field: UserName
Description: Email Address
Msg: The Email Address is Required.

Framework Agnostic



Quick Demo

CF

CF.Objective()

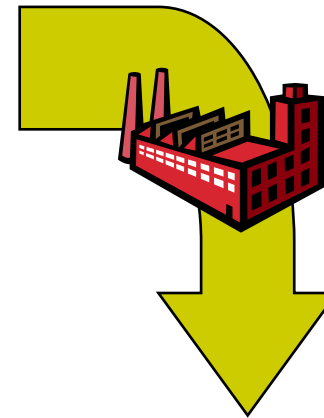
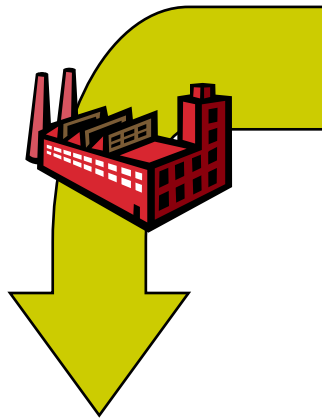
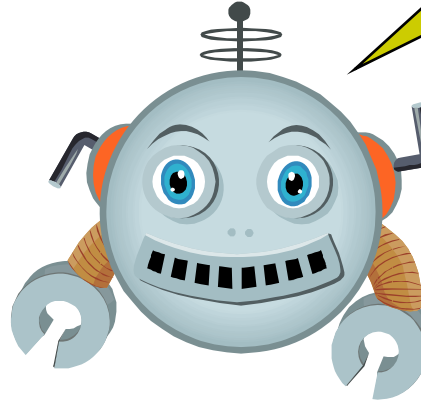
How?

CF

CF.Objective()

Code Generation

First Name is
Required



```
$("FirstName").val().length > 0
```

```
Len(getFirstName()) GT 0
```



Let's Talk Metadata

CF

CF.Objective()

Properties and Rules

```
<objectProperties>
  <property name="UserName" desc="Email Address">
    <rule type="required" contexts="Register,Profile" />
    <rule type="email" contexts="*"
      failureMessage="You call that an Email Address?" />
  </property>
</objectProperties>
```

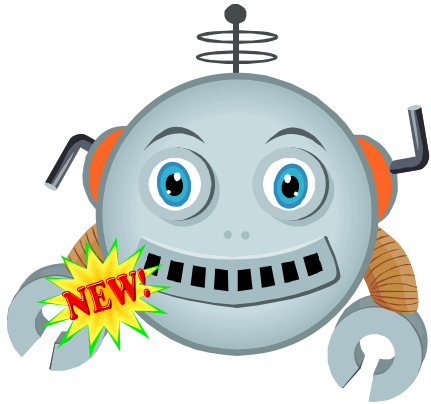
Rules with Parameters

```
<property name="UserPass" desc="Password">
  <rule type="rangelength">
    <param minlength="5" />
    <param maxlength="10" />
  </rule>
  <rule type="equalTo">
    <param ComparePropertyName="VerifyPassword" />
  </rule>
  <rule type="custom">
    <param methodname="checkPWHistory" />
  </rule>
</property>
```

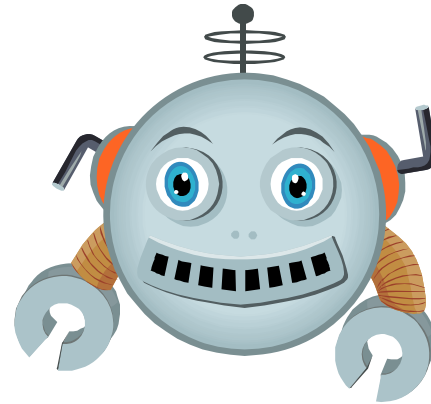
Conditional Rules

```
<property name="LastName" desc="Last Name">
  <rule type="required" contexts="Register">
    <param DependentPropertyName="FirstName" />
  </rule>
</property>
<property name="CommunicationMethod"
  desc="Communication Method">
  <rule type="required" contexts="*">
    <param DependentPropertyName="AllowCommunication" />
    <param DependentPropertyValue="1" />
  </rule>
</property>
```

Rules Can Belong to Contexts



Register



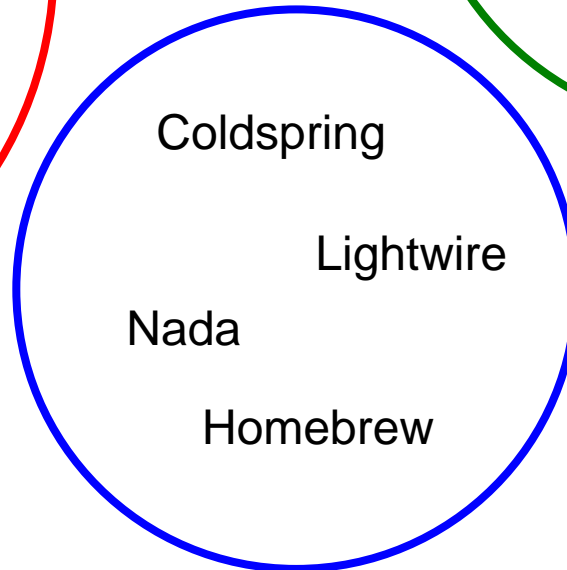
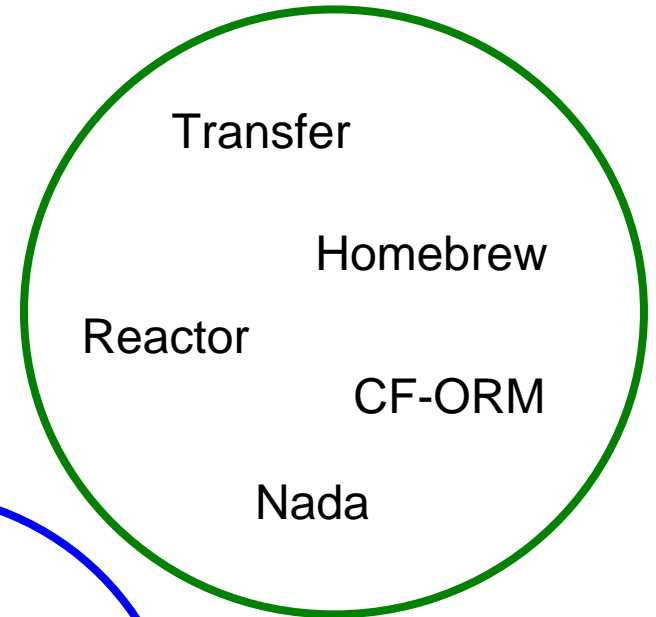
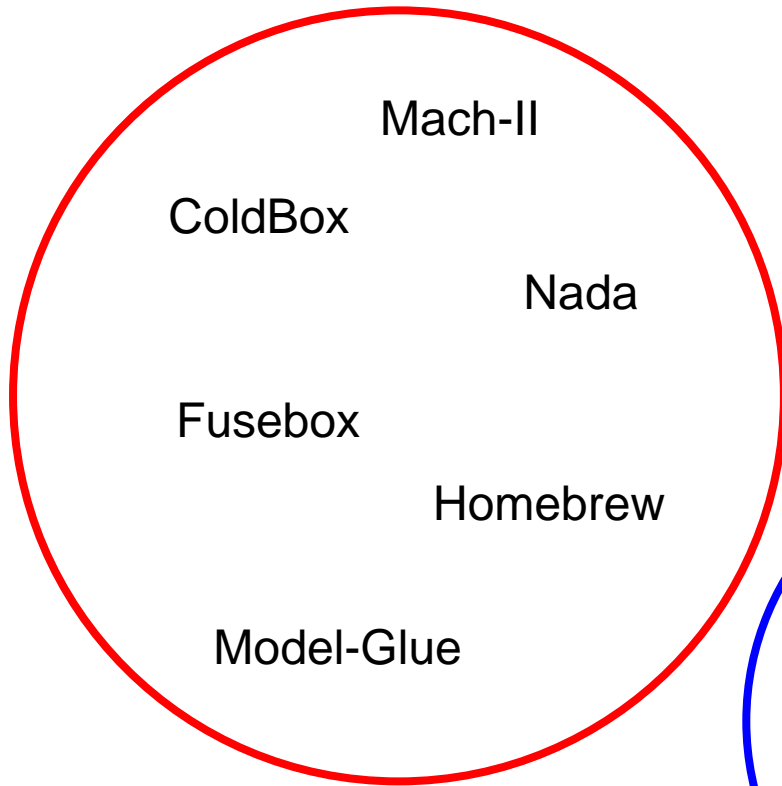
Profile

Yeah, but How?

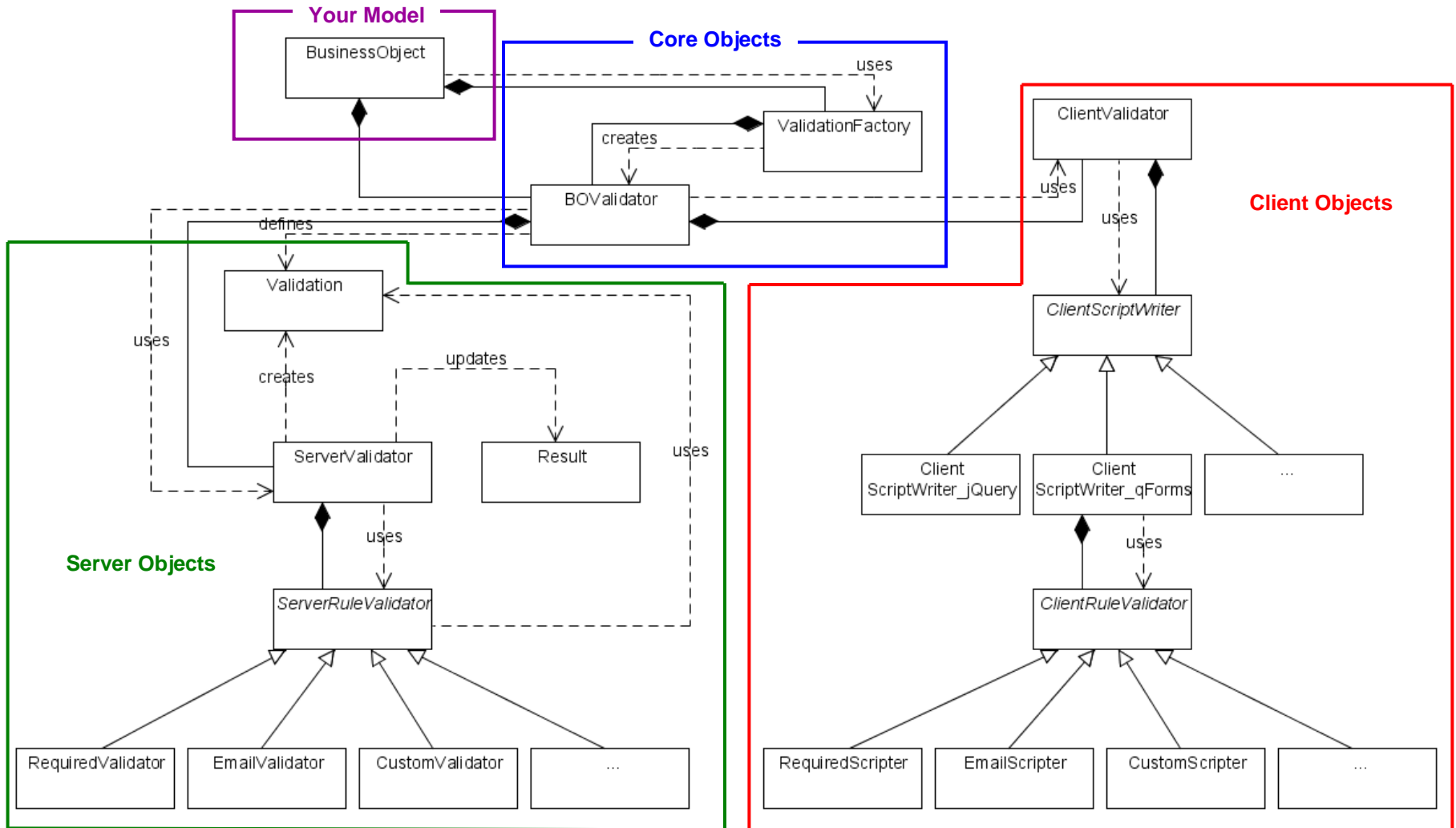
CF

CF.Objective()

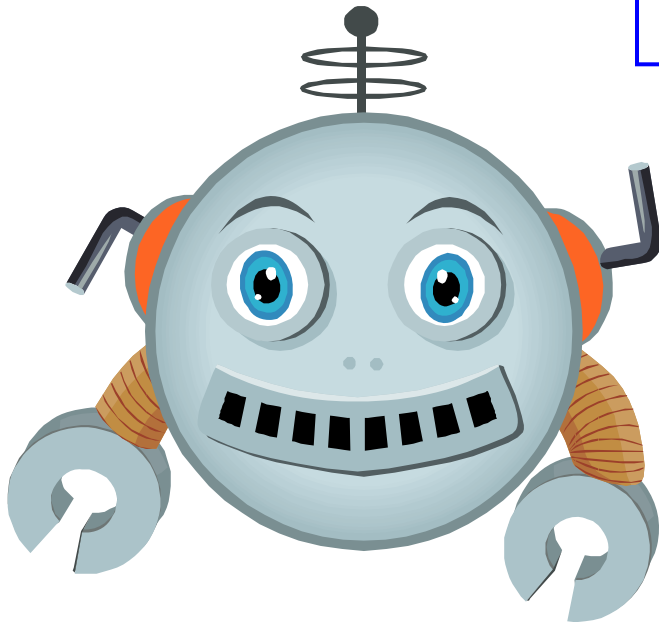
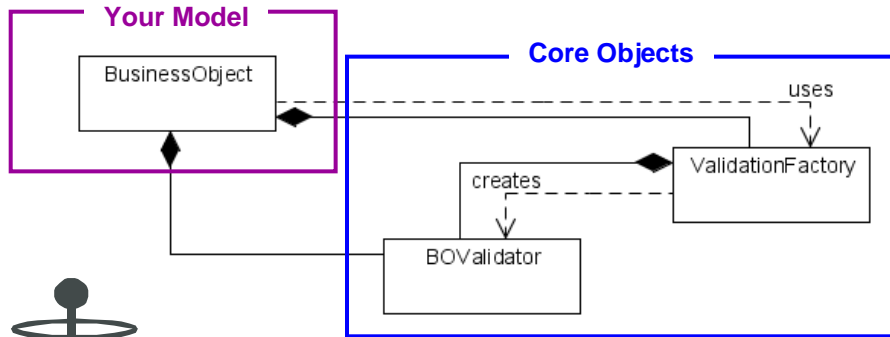
Framework Agnostic



Overall Architecture



Core Objects



Business Object



Business Object
Validator

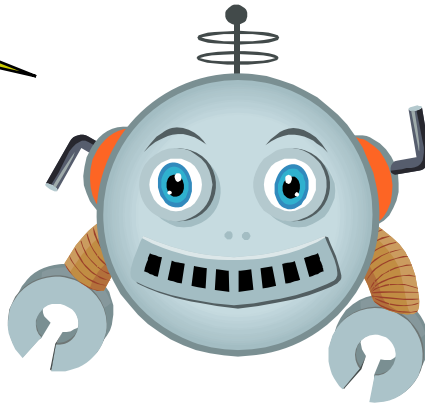


Validation Factory

How Does the BO Get Those Nifty Objects?

Here I am!

Hey factory, gimme a BO Validator!

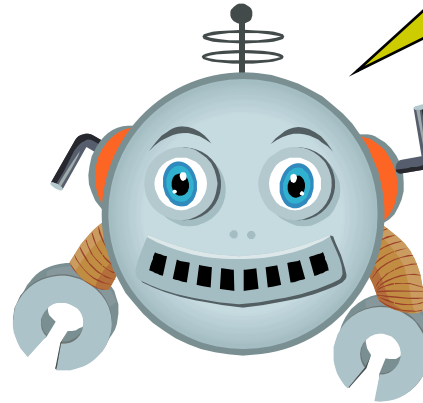


Validation Factory

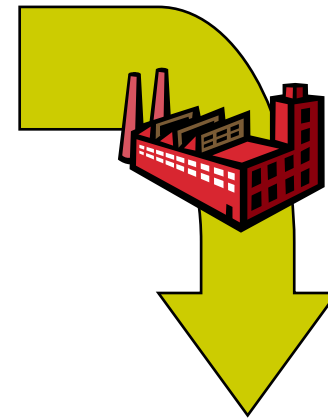


Business Object Validator

Code Generation



First Name is
Required



```
Len(getFirstName()) GT 0
```



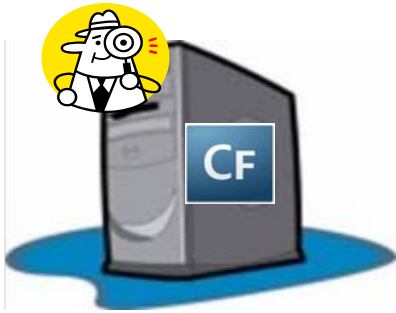
Server Objects

CF

CF.Objective()

Server Objects

Singletons



**Server
Validator**
“the manager”

Transients



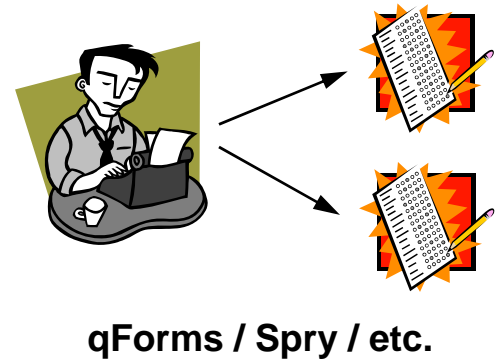
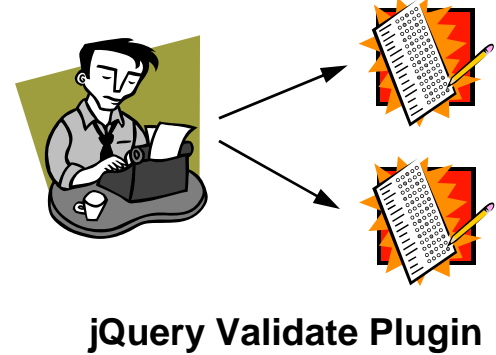
Validation
“the test”

Flexible Validations

Validation Types

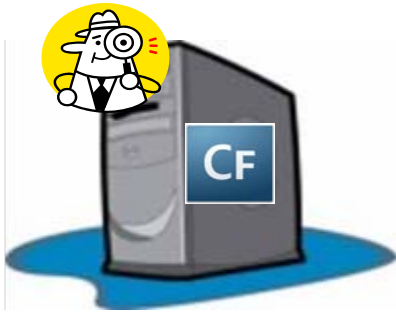


JS Implementations

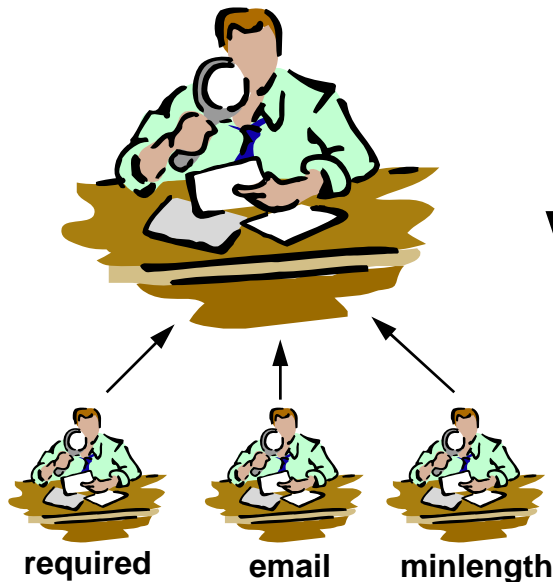


Server Objects

Singletons



**Server
Validator**
“the manager”



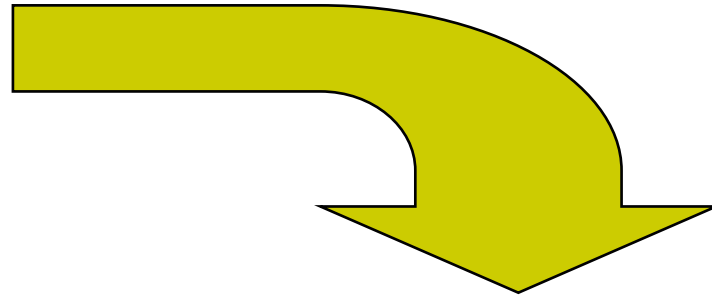
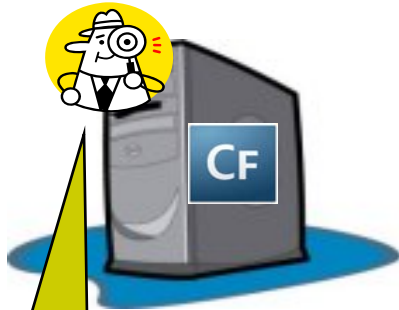
**Server
Rule
Validator**
“the tester”

Transients



Validation
“the test”

Flexible Feedback



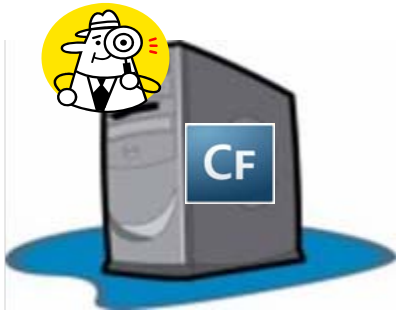
Rut Roh!



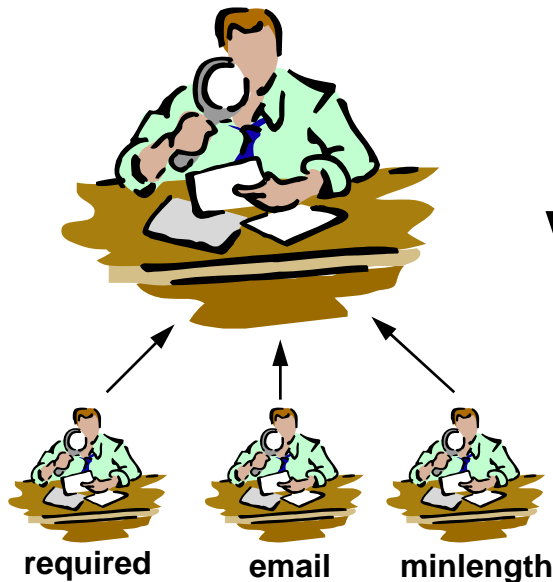
Type: Required
Field: UserName
Description: Email Address
Msg: The Email Address is Required.

Server Objects

Singletons



**Server
Validator**
“the manager”



Transients

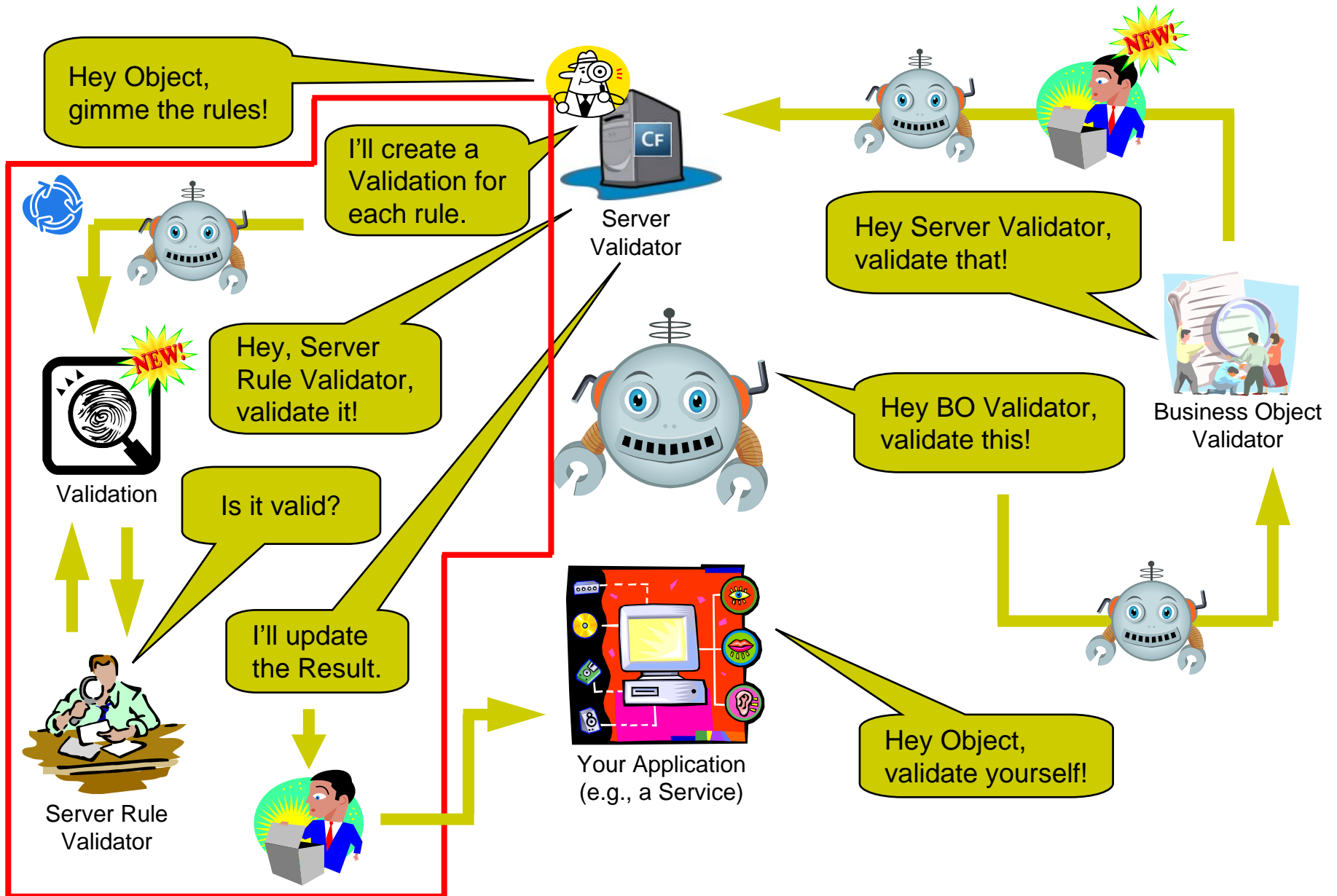


Validation
“the test”



Result
“the package”

Server Side Validations



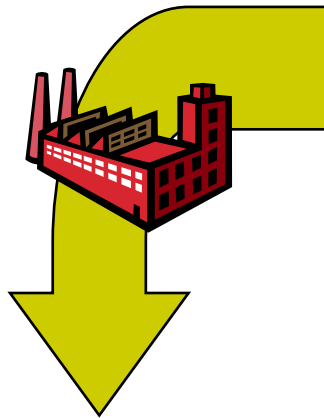
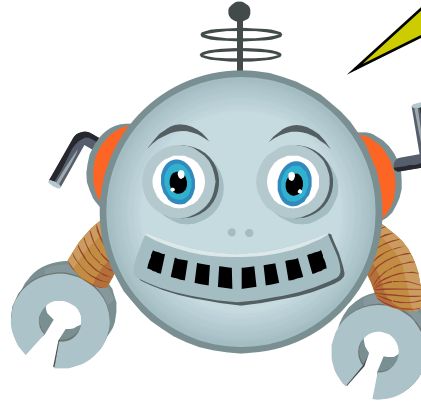
Client Objects

CF

CF.Objective()

Code Generation

First Name is
Required



```
$("FirstName").val().length > 0
```



Client Objects



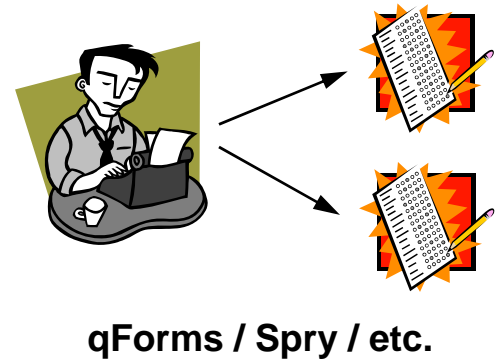
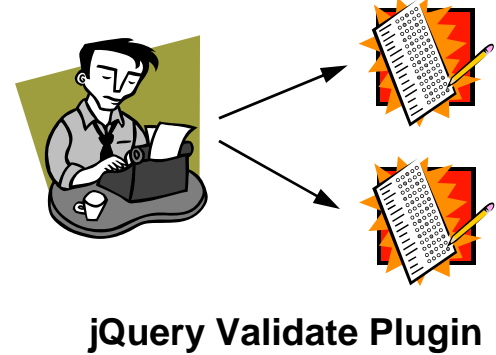
**Client
Validator**
“the manager”

Flexible Validations

Validation Types



JS Implementations



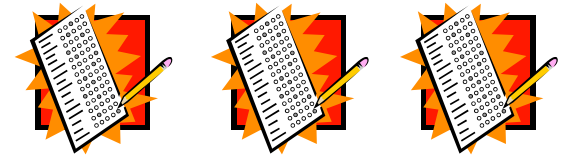
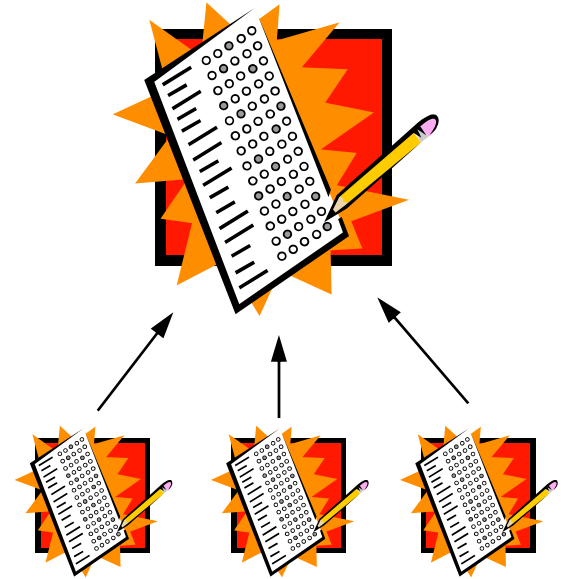
Client Objects



**Client
Validator**
“the manager”

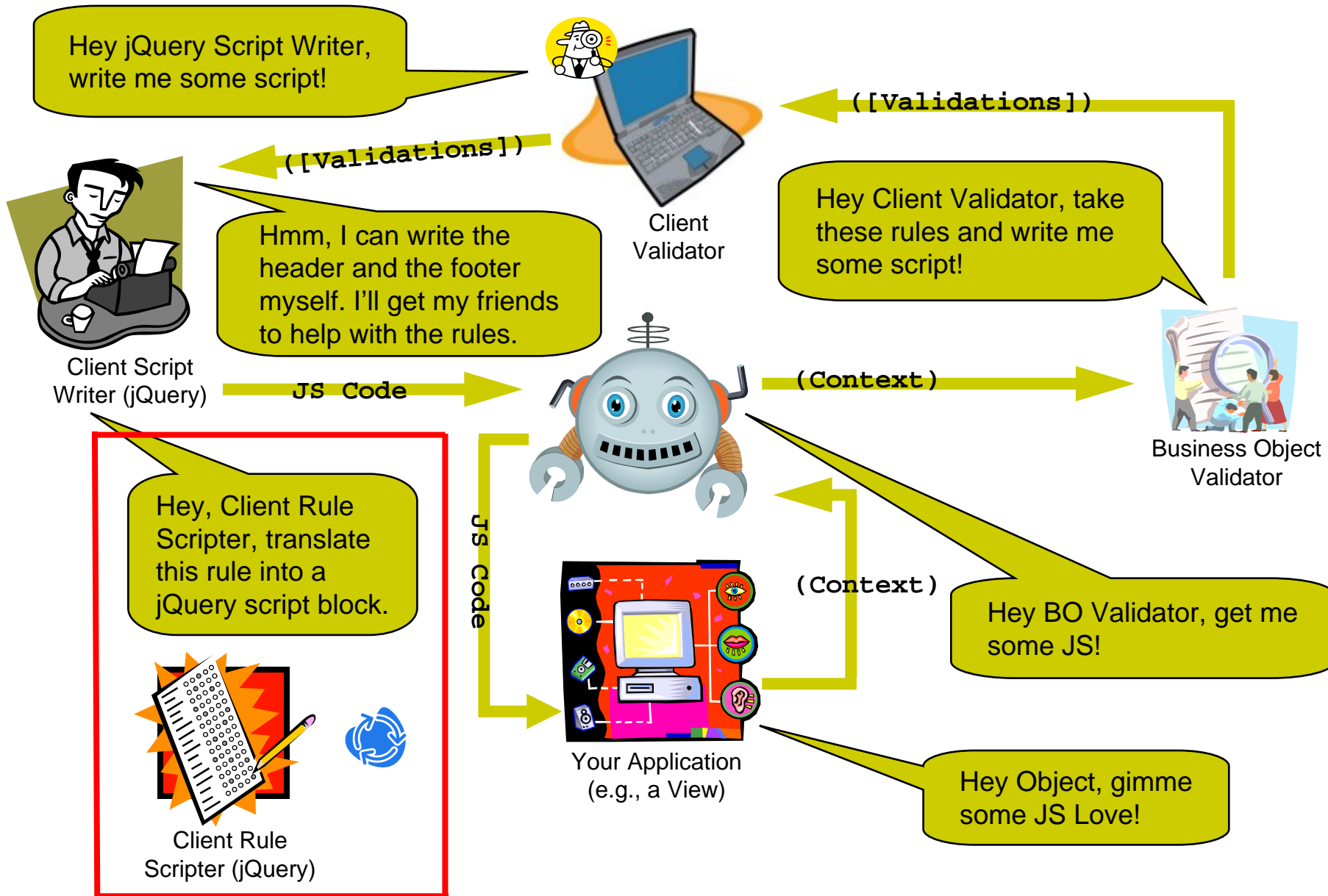


**Client
Script
Writer**
“the translator”

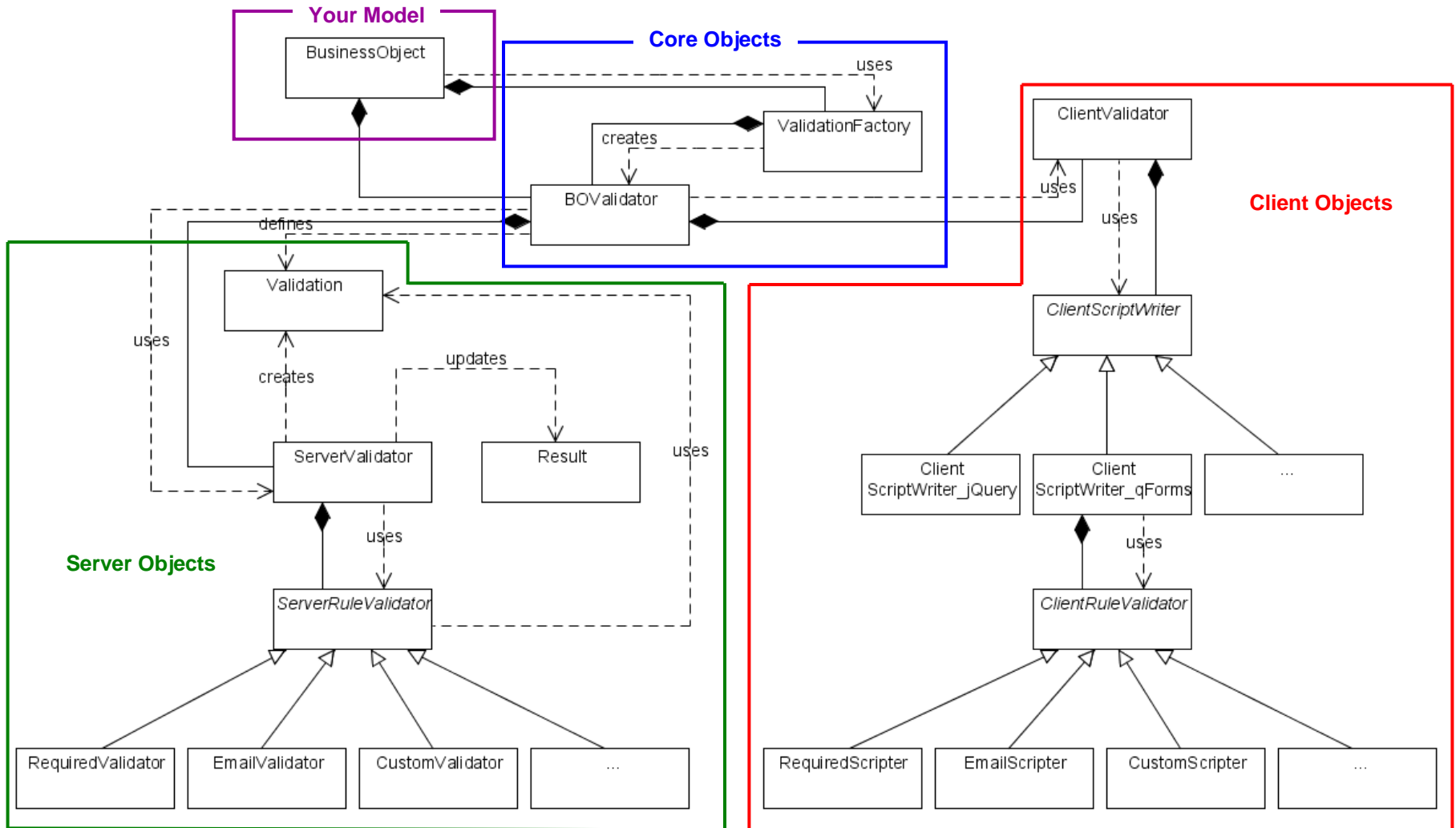


**Client
Rule
Scripter**
“the dictionary”

Client Side Validations



Overall Architecture



Resources

- validatethis.riaforge.org
- www.silverwareconsulting.com
- groups.google.com/group/validatethis

CF

CF.Objective()

Q & A

<http://www.cfobjective.com/surveys.cfm>

CF

CF.Objective()