INTER-Mediator
Simple and Extensible
Web Application Framework

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Who am I ? Masayuki Nii

Developer, Consultant and Trainer
- Independent (self-employed) based on Japan (close to Tokyo).
- iOS, OS X, OS X Server, Linux and Web.
- FileMaker, MySQL, PostgreSQL.
- Teaching at two universities (Keio and Senshu univ.).

Works about FileMaker
- Internationalized FX.php.
- Author of the Japanese book "Relational DB for FileMaker".
- Mainly web integration.
- NOT FBA (FM Japan doesn't allow it to self-employed people.)

Agenda

The Concept of INTER-Mediator

Demo of Development

The Key Features of INTER-Mediator

The Concept

Requires:
- Web server with PHP
- Modern Browser (NO Internet Explorer 6)
- FileMaker Server, MySQL, PostgreSQL, SQLite

Simplified Development:
- Almost no programming to bind the database and web page.
- Automatic updating to the database.
- Listing and paging of records are supported.
- Authentication supported.

Extensible Options:
- Extend the server side with PHP programming.
- Extend the client side with JavaScript programming.

Demo

Demo

Demo

Demo

Recap of the Demo

Basic Procedure:
- Create PHP file with the definitions of context (database access information).
- Create HTML file with "Binding" tags.

Page Generation:
- The field data are inserted into the tag element.
- Multiple-records repeat the row of the table.
- Paging feature is available.

Update Data:
- Text fields can be updated automatically.

Relationship
- Relationship works.

The Key Features

HTML Generation

Text Field
- Set data from a database
- Update when the data is modified.

Checkbox, Radio Buttons
- Synchronized with a numeric field.

Popup Menus
- Options can be from database.
- Conditional options available.

Other than form elements
- Set the data to attributes, styles and text node.
- Can be set to innerHTML property.
- Appending, Replacing and Scripting

Client-Side Script

JavaScript
- No conflicts with other libraries.

INTER-Mediator API
- Get the id of generated elements.
- Direct access to the database server.

Controlling Database Access
- Add query conditions and sort fields dynamically.

Calculation on the Client-Side
- ex. unit price x qty.
- Calculate just in time to modify the data.

Server-Side Script

Processing:
- Before database processing.
- After database processing.

For One single field data
- ex. Date and time format conversion

For Whole recordset
- Aggregation
- Sending email

Scripting
- PHP's method.
- Get the array as the recordset, and return as the array.

Authentication and Authorization

Activation

- Just settings, no program.
- User can change thier own password.
- Account Management web page is available.

Authentication Support

- Custom user/group table or db engine's users
- Challenge-Response way for custom account table.
- PKI encryption for db engine's user.

Authorization

- Set for each CRUD operations or ALL.

Other Features

Validation
- Set the JavaScript program for each text fields.

Browser Detection
- Possible to access with specific browsers, versions and platforms.

Batch Update
- Updating data on the page after clicking a button.

In the Future...

Media Support
- Images or anything media with authentication.
- File uploading.

Database Support
- Cloud: ex. Amazon SimpleDB
- Local: HTML5's local database
- Others: Hadoop.

Client-Side Caching

English Documentation

Target of INTER-Mediator

Custom Solutions
- Want to be a web application.
- Low budget.

For Small Organizations or Divisions
- Just start with mock HTML page.
- Should make a valid design about database.
- Bind with them.
- If you want to do other than binding, you should make programs with JavaScript/PHP.

Summary

You can make a web page just like FileMaker.

Binding a page to database without programming.

Extensible both client and server-side with some programming.

MIT License (it means mostly free!)

http://inter-mediator.info/

Q&A

INTER-Mediator Web Site

http://inter-mediator.info/

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