PowerSchool Customization #1 - Intro

Site Structure and Basic Concepts

PSUG
MIDDLE EAST

About the Trainer

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- Valley Christian Schools
  Southern California
- 1200+ students Preschool - 12
  PowerSchool since 2003

Localization

Custom Fields
Database Extensions

Custom Screens

Introduction

Custom Pages

Page Fragments

Plugins

HTML PSHTML CSS

The Languages of Customization

JavaScript/JQuery SQL Angular

Examples

The Best Thing about PowerSchool is that it is customizable

The Best Thing about PowerSchool is that it is customizable

The Worst Thing about PowerSchool is that it is customizable

Bob Cassidy - PSUG

Localization (LTK = Language Translation Toolkit)

English -> Spanish
Mother -> Madre

Localization (LTK = Language Translation Toolkit)

English -> Spanish
Mother -> Madre

English -> English
Mother -> Parent 1

Custom Fields

Legacy Custom Fields

Database Extensions

Legacy Custom Fields

- System - Custom Fields/Screens
- Only for Student, Staff (teachers table), Course and Section
- Only text fields
- One giant custom field
- Limit of 999 total fields for a given table (core + custom)

The Old Way. *With custom fields, all custom data is stored in a single field in the core table. They are all "Text" types.*

Students Table	
Last_Name	Adair
First_Name	Brandon
DCID	2
ID	5
CUSTOM	Medical Notes: Allergic to peanuts contact_1_email: contact1@email.com contact_2_email: contact2@email.com contact_1_employer: Wal Mart contact_2_employer: Lanham Law Offices parent_notes: Brandon is only allowed to be picked up from school on Wednesdays by his father.

Database Extensions

- System - Page and Data Management - Manage Database Extensions
- REAL tables and fields
- Migration options for legacy custom fields:
  - all-at-once (not recommended)
  - one-at-a-time
- One-to-one, one-to-many, standalone
- "Group" organization. (U_STUDENTS_EXTENSION)
  - U_VEX, U_ETX, U_FSH

Database Extensions - The New Way. *Faster, real tables and fields, multiple data types.*

Students	*Core Table "Parent"*		**U_Def_Ext_Students**	*New extended table "Child"*
Last_Name	Adair			
First_Name	Brandon		*This table "relates" to the Students table*	
DCID (*Primary Key*)	2	<->	StudentsDCID (*Foreign Key*)	2
ID	5		Contact1_Email	contact1@email.com
			Contact2_Email	contact2@email.com
			Contact1_Employer	Wal Mart
			Contact2_Employer	Lanham Law Offices
			Medical_Notes	Allergic to Peanuts

Using Custom Fields		
Functional Area	**Legacy Custom Fields**	**Database Extensions (one-to-one)**
In searches, lists, exports and wherever it asks for a "fieldname"	Fieldname Example: `DistrictID`	ExtensionGroupName.Fieldname Example: `U_Students_Extension.DistrictID`
Reports that use DATs	~(Fieldname) Example: `~(DistrictID)`	~(ExtensionGroupName.Field_Name) Example: `~(U_Students_Extension.DistrictID)`
Custom Pages (HTML)	[PrimaryTable]Fieldname Example: `[Students]DistrictID`	[PrimaryTable.ExtensionsGroupName]FieldName Example: `[Students.U_Students_Extension]DistrictID`

IT'S TIME TO MIGRATE

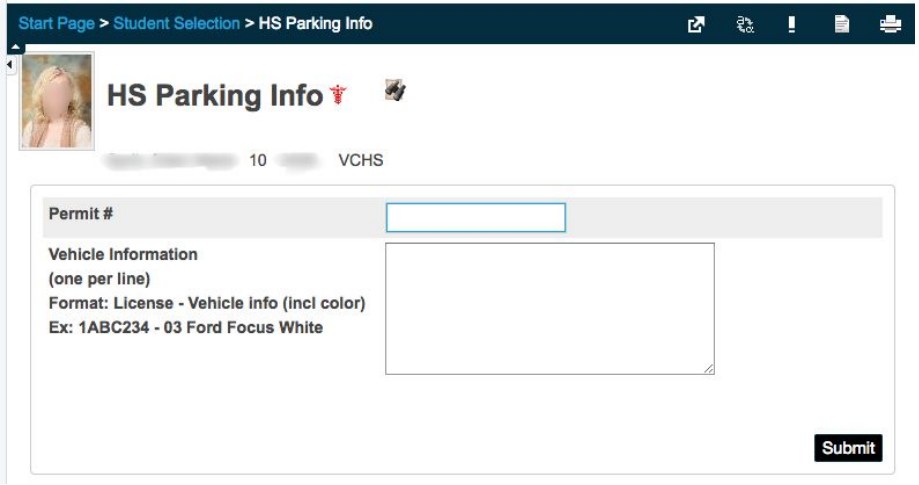
Legacy

Database Extensions

- Core and Core2
- State Reporting
- Activities
- User-created (still optional)

If user-created custom field migration has been performed on the server, you cannot create legacy custom fields

Custom Screens



Custom Student Screen Fields: HS Parking Info

New

Label	Field Name	Type	Sort Order
Permit #	permit	Entry field	1
Vehicle Information (one per line) Format: License - Vehicle info (incl color) Ex: 1ABC234 - 03 Ford Focus White	vehicle	Entry box	2

Edit Custom Student Screen Field: HS Parking Info

Option	Value
Label	Vehicle Information (one per line) I
Field Name (Fields)	vehicle
Sort Order	2
Input Type	Entry box
Width **(applies only to 'entry field' and 'entry box' types)**	40 (width in characters)
Height **(applies only to 'entry box' type)**	8 (height in lines)

HS Parking Info

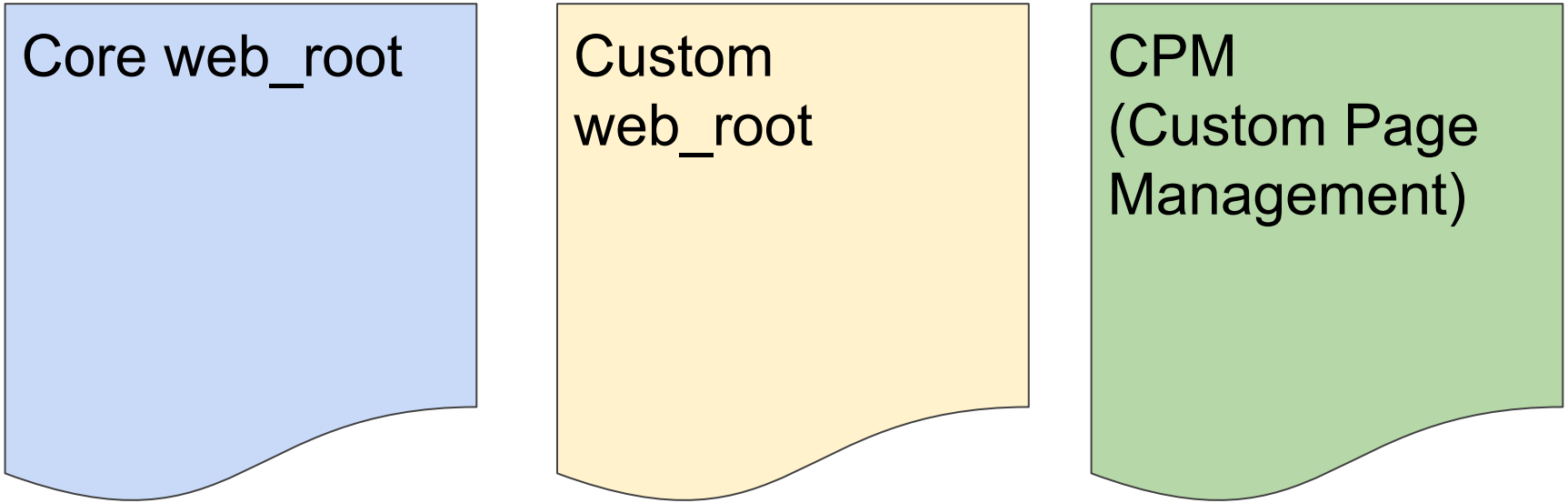
[redacted] 10 [redacted] VCHS

Permit #	
Vehicle Information **(one per line)** **Format: License - Vehicle info (incl color)** **Ex: 1ABC234 - 03 Ford Focus White**	

Submit

Custom Pages

Page Locations



Page Locations

Core web_root

This is the location where all the stock pages updated by PowerSchool are served from. No need to access and NOT advisable to modify

<PS Install Folder>\application\components\powerschool-core-<<version_number>>\system\server\resources\web_root

Page Locations

Custom web_root

Legacy location for custom pages. If using modern CPM the best practice is to make sure everything is migrated to CPM and removing files from this folder

<PS Install Folder>\data\custom\web_root

Page Locations

CPM
(Custom Page Management)

NOT a folder! CPM stores custom pages in the database and there is a web interface for working with them.

Before version 12.1

Start>PS Administrator>Custom Pages

- **Separate portal requiring separate account**

12.1 and later

Start>System>Page and Data Management>Custom Page Management

- **Within admin portal, no separate account required.**
- **Must setup permissions**

Page Locations

CPM
(Custom Page Management)

The "What's New in PowerSchool 12.1" presentation has screenshots of how to enable the new CPM

- **"What's New in PowerSchool 12.1" on PowerSource at https://support.powerschool.com/exchange/view.action?download.id=958**
- **Presented on the PowerSchool Insider Episode 54**

Page Locations

CPM
(Custom Page Management)

A great alternative CPM editor created by a power user:
"Blue Steel CPM"
(Exchange ID 749)
- Upload multiple files
- Search for files
- Filter by plugin names

Blue Steel Custom Page Management (CPM)

[b]PowerSchool 12.1 Users[/b] Make sure you have access to the stock CPM before using. A new more functional version of Custom Page Management (CPM). This was created to have a better interface to CPM and make it easier to customize. [ul] [*]Ctrl+S or Command+S to save [*]Multiple file upload [*]Search [*]Show Customizations only [*]Snippets - ability to create your own reuseable pieces of code to insert [*]Templates - ability to ... [View More]

Categories:

Custom Web Pages

Products:

PowerSchool 12.x,
PowerSchool 9.x,
PowerSchool 8.x,
PowerSchool 10.x,
PowerSchool 11.x

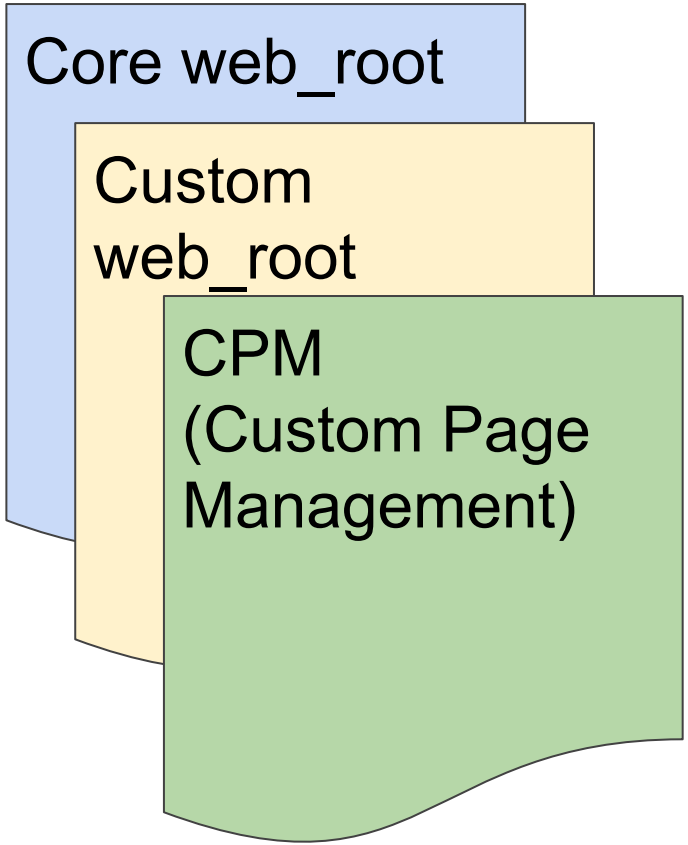
Additional Details:

2258 downloads

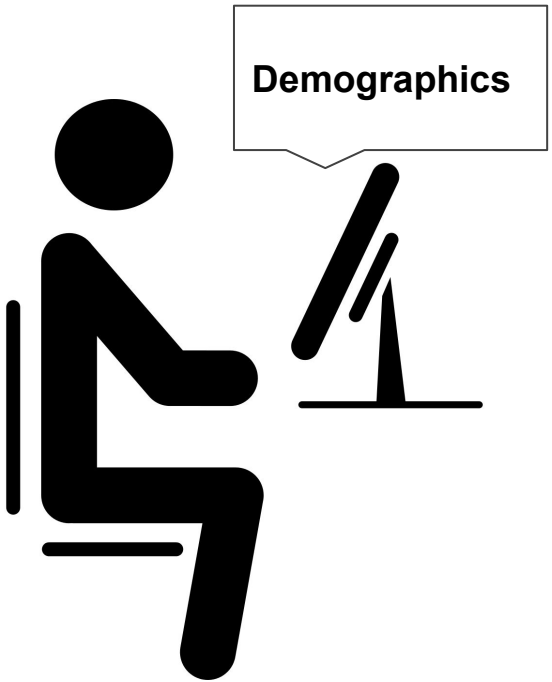
+97 votes

Modified: 1/7/2019
Size: 2.18 MB

Page Locations



Page Locations



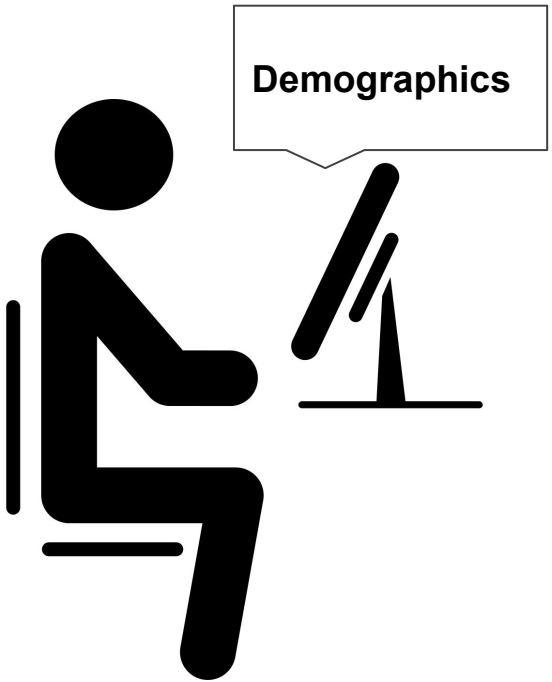
Core web_root

Custom web_root

CPM (Custom Page Management)

?

Page Locations

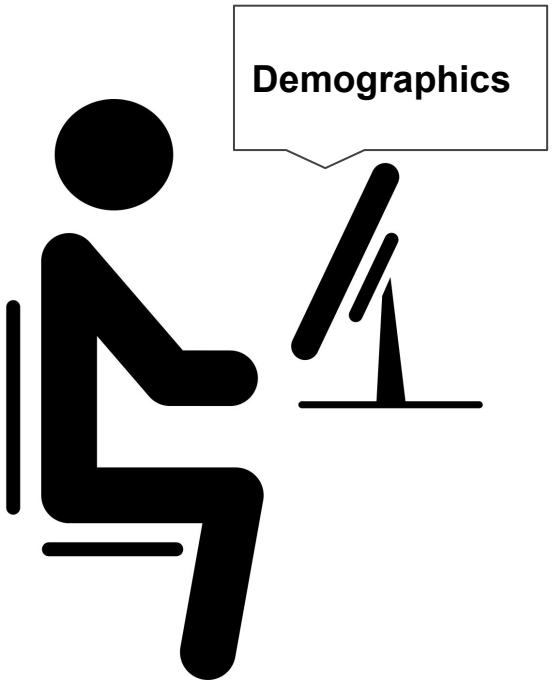


Core web_root

Custom web_root

?

Page Locations

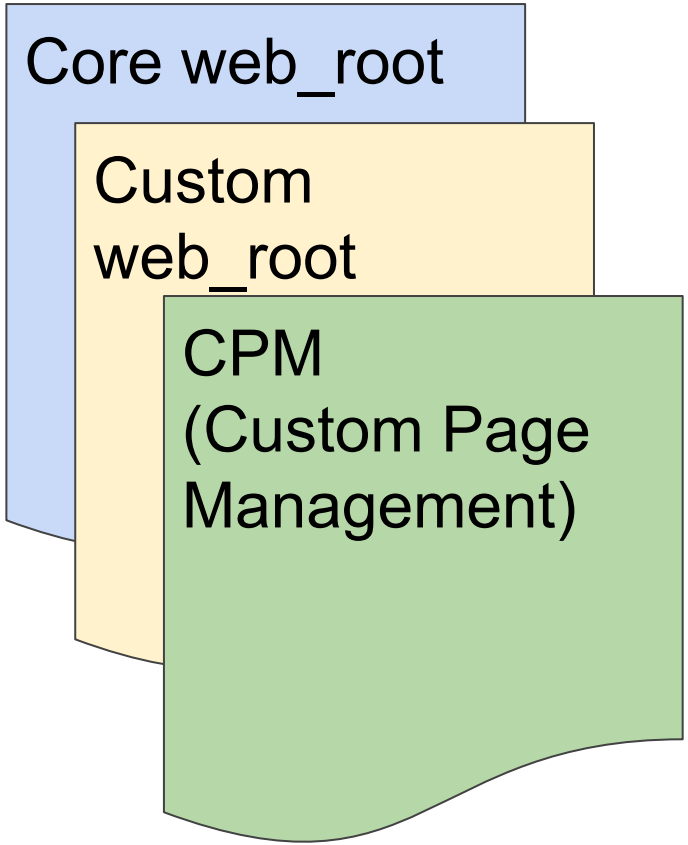


Core web_root

Demographics - YES

Page Locations

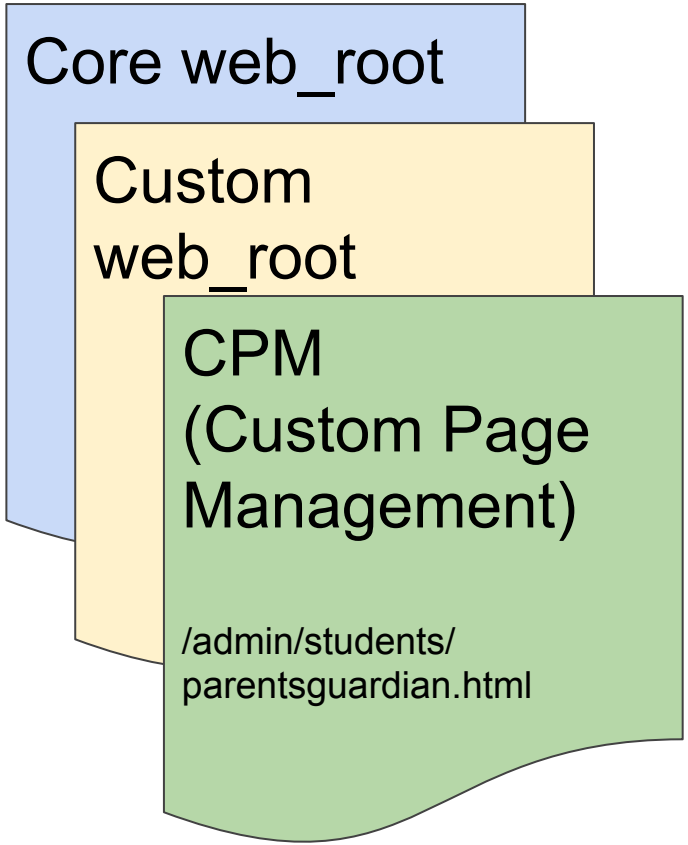
"Stuck Customization"



Page Locations

"Stuck Customization"

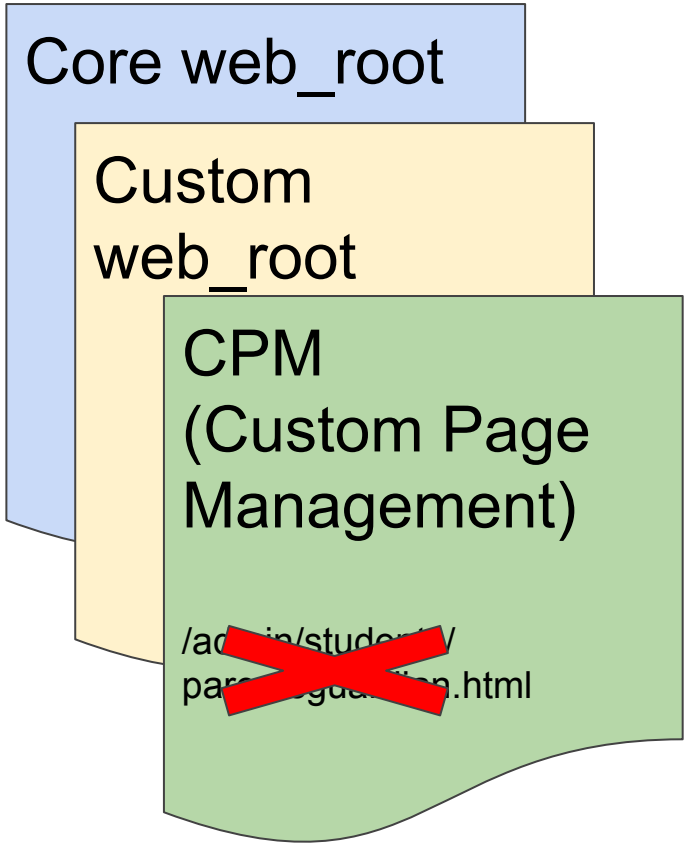
/admin/students/
parentsguardian.html



Page Locations

"Stuck Customization"

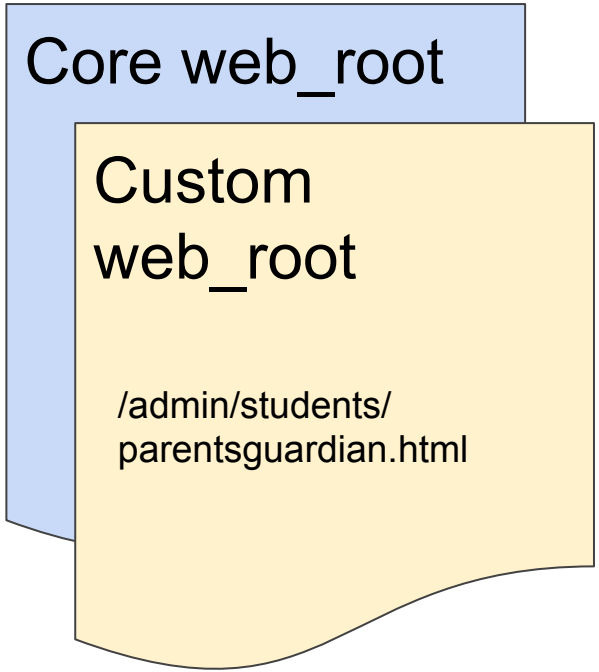
/admin/students/
parentsguardian.html



Page Locations

"Stuck Customization"

/admin/students/
parentsguardian.html



Page Locations

"Stuck Customization"

/admin/students/
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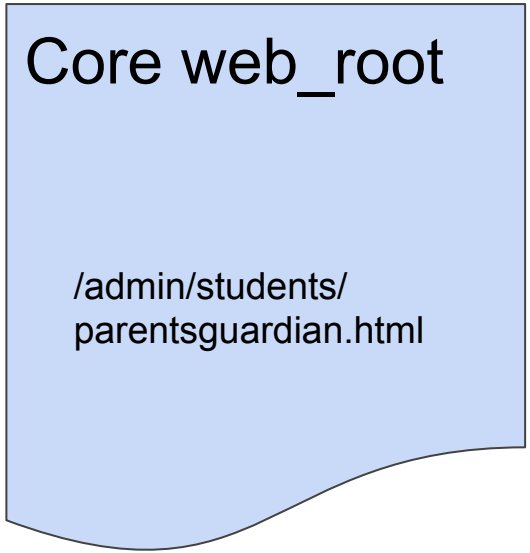
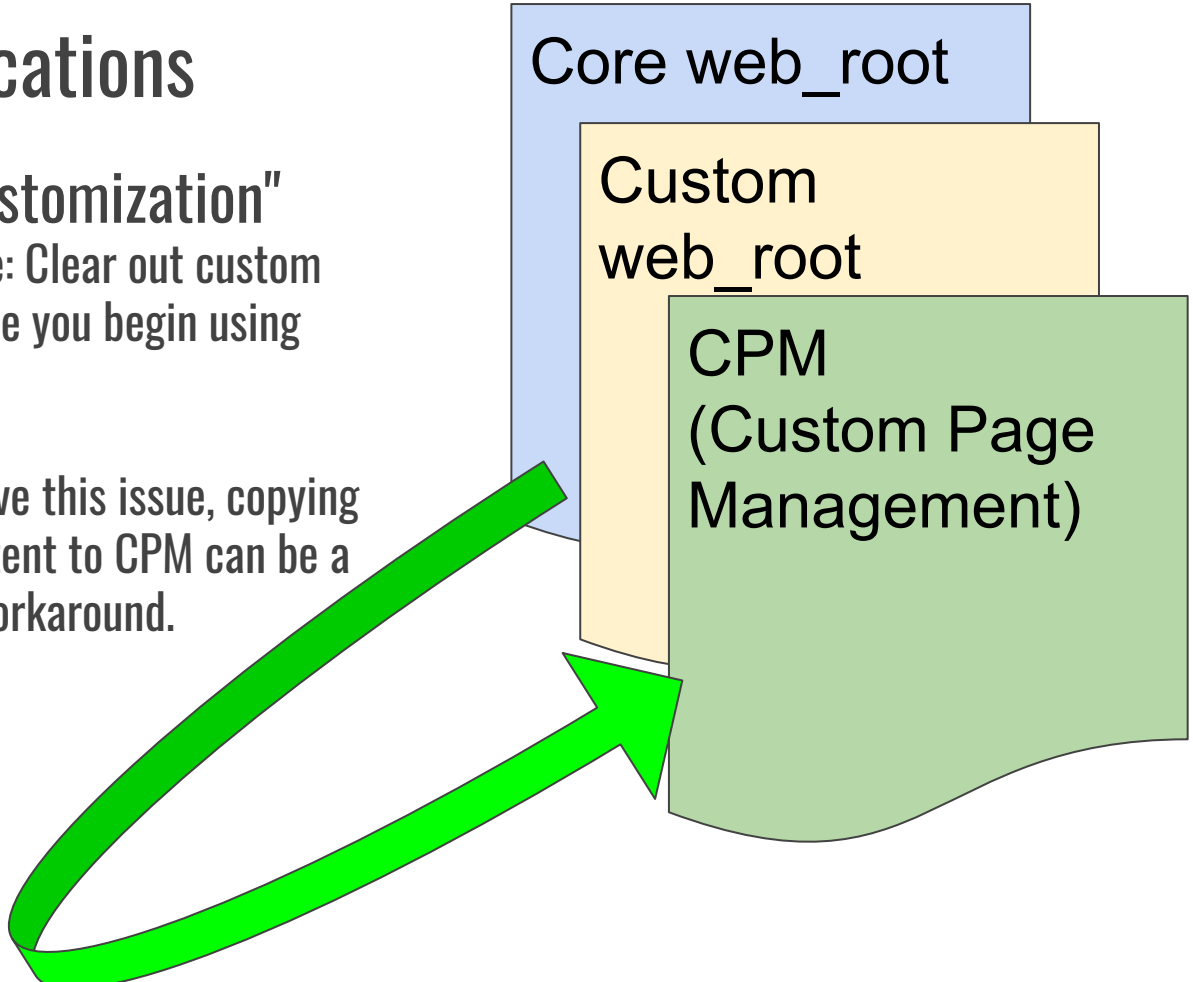


Page Locations

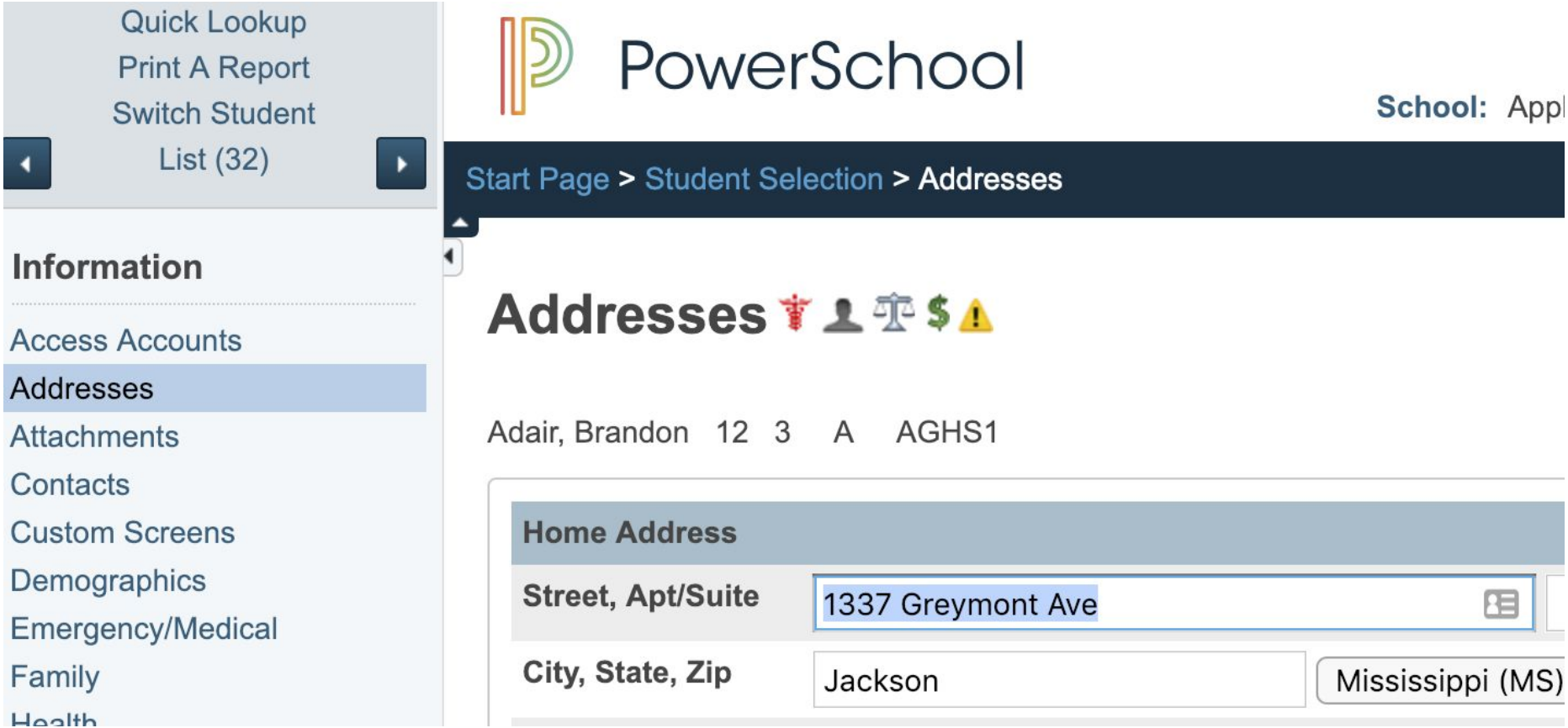
"Stuck Customization"

Best Practice: Clear out custom web_root once you begin using CPM.

But if you have this issue, copying the core content to CPM can be a temporary workaround.



Basics of Server/Client Web Applications



Basics of Server/Client Web Applications

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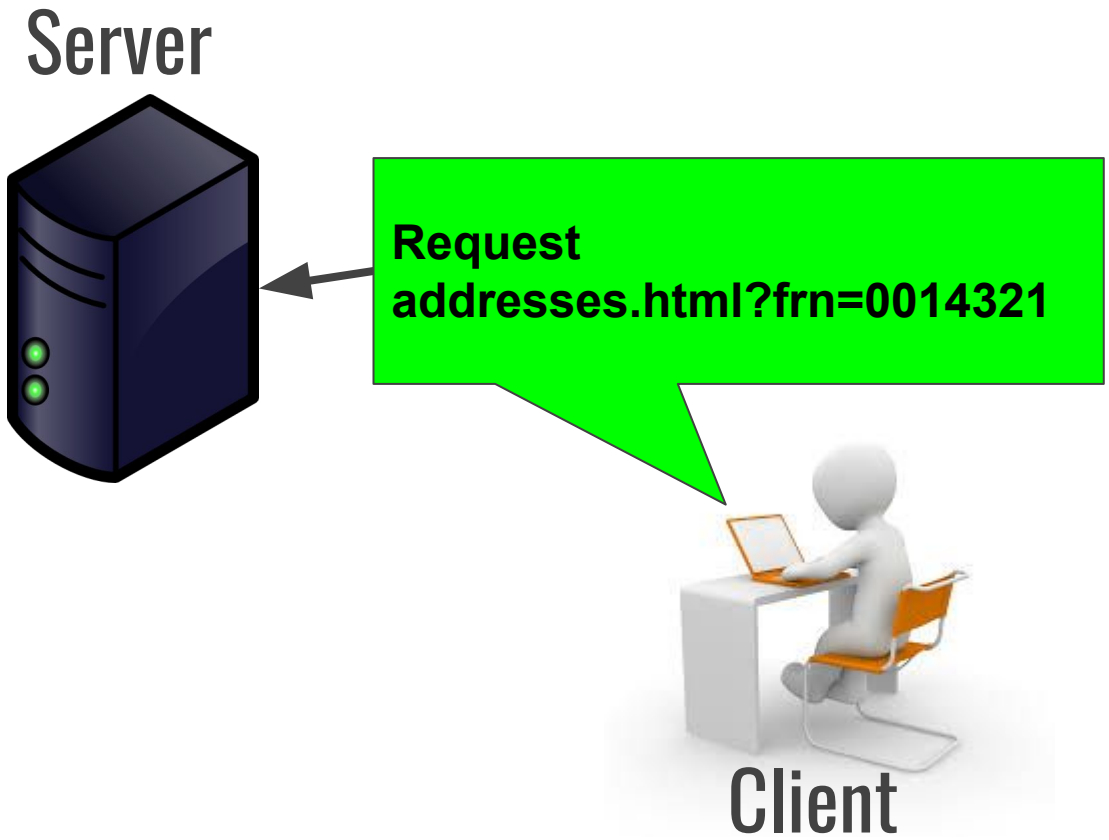
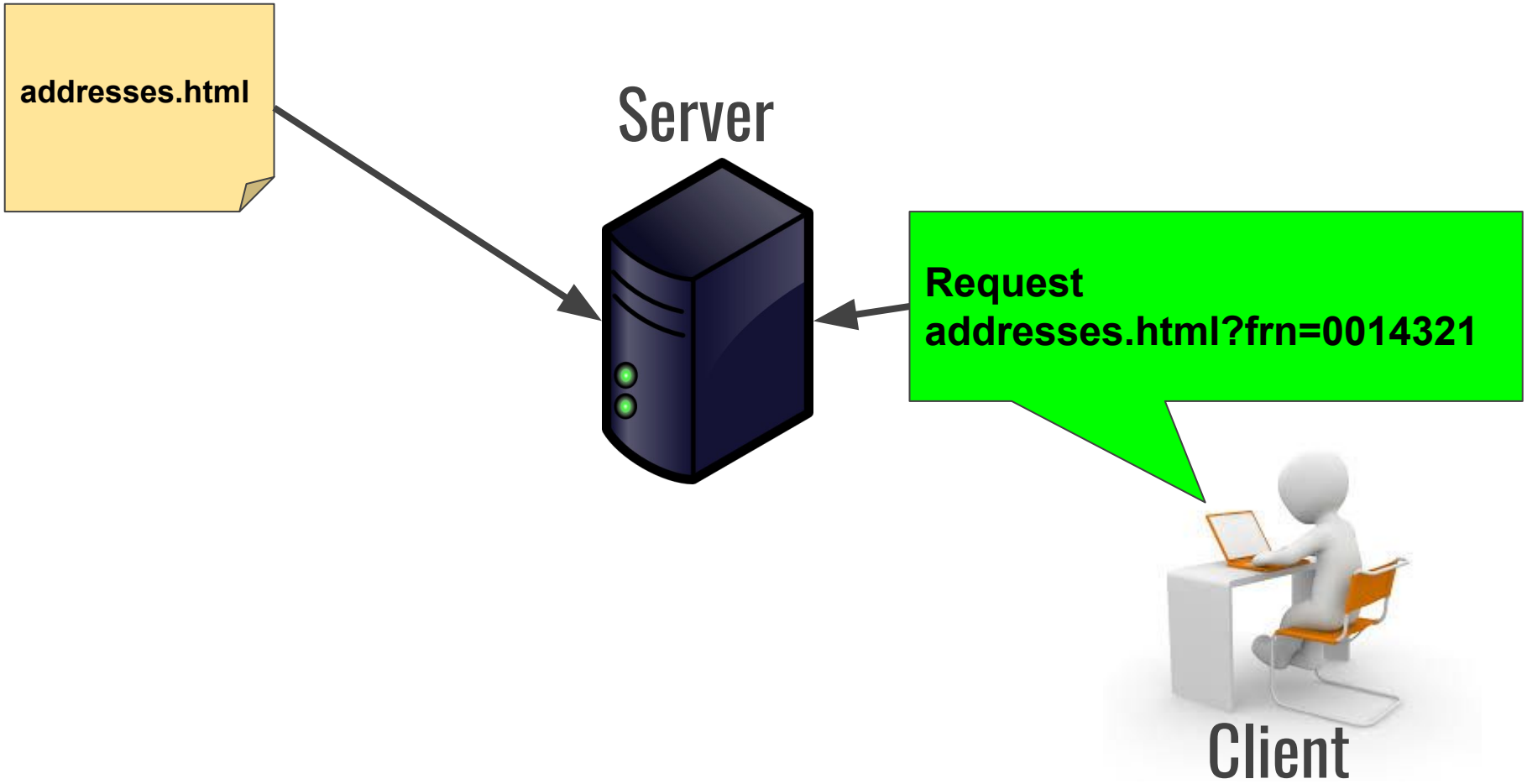
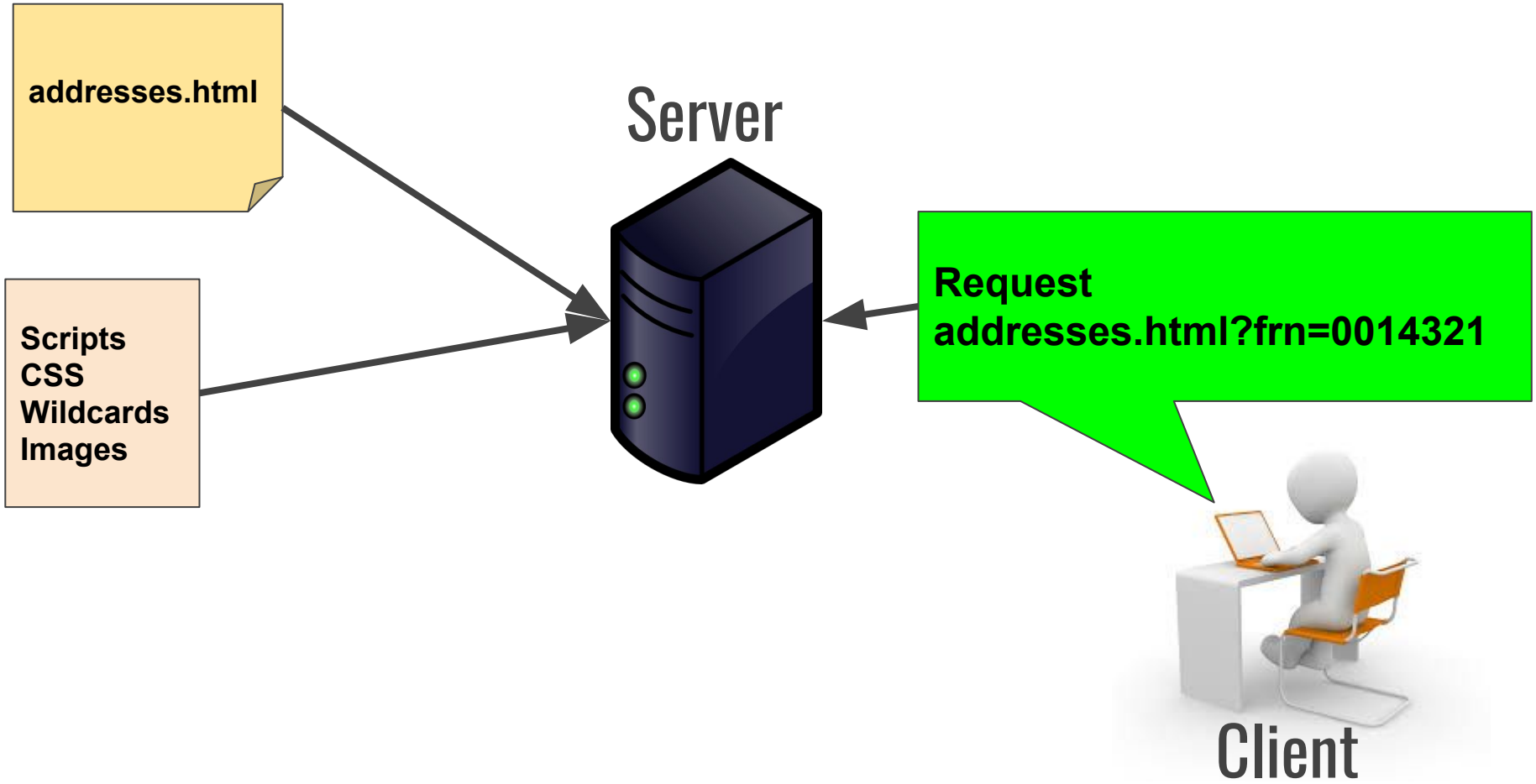
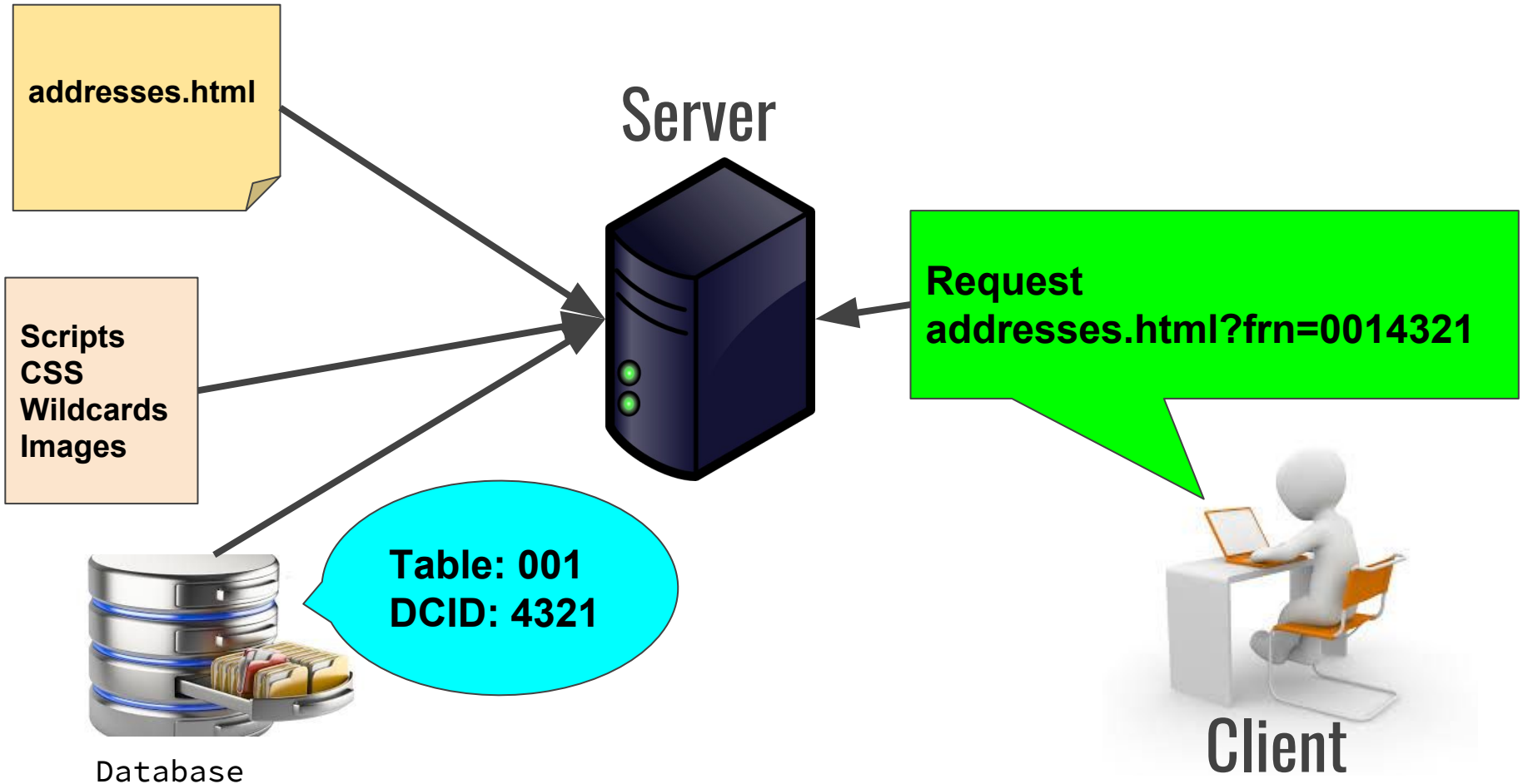
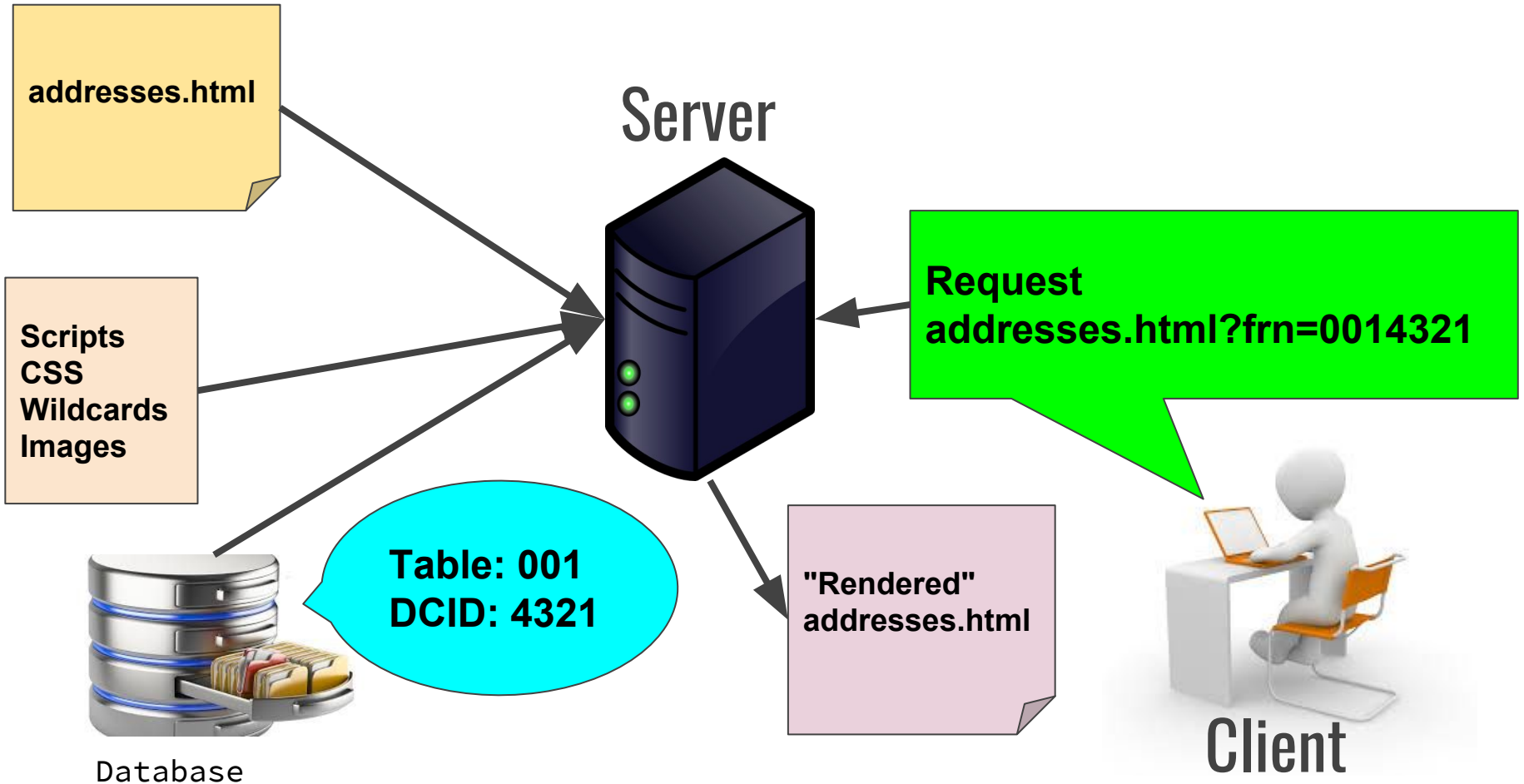
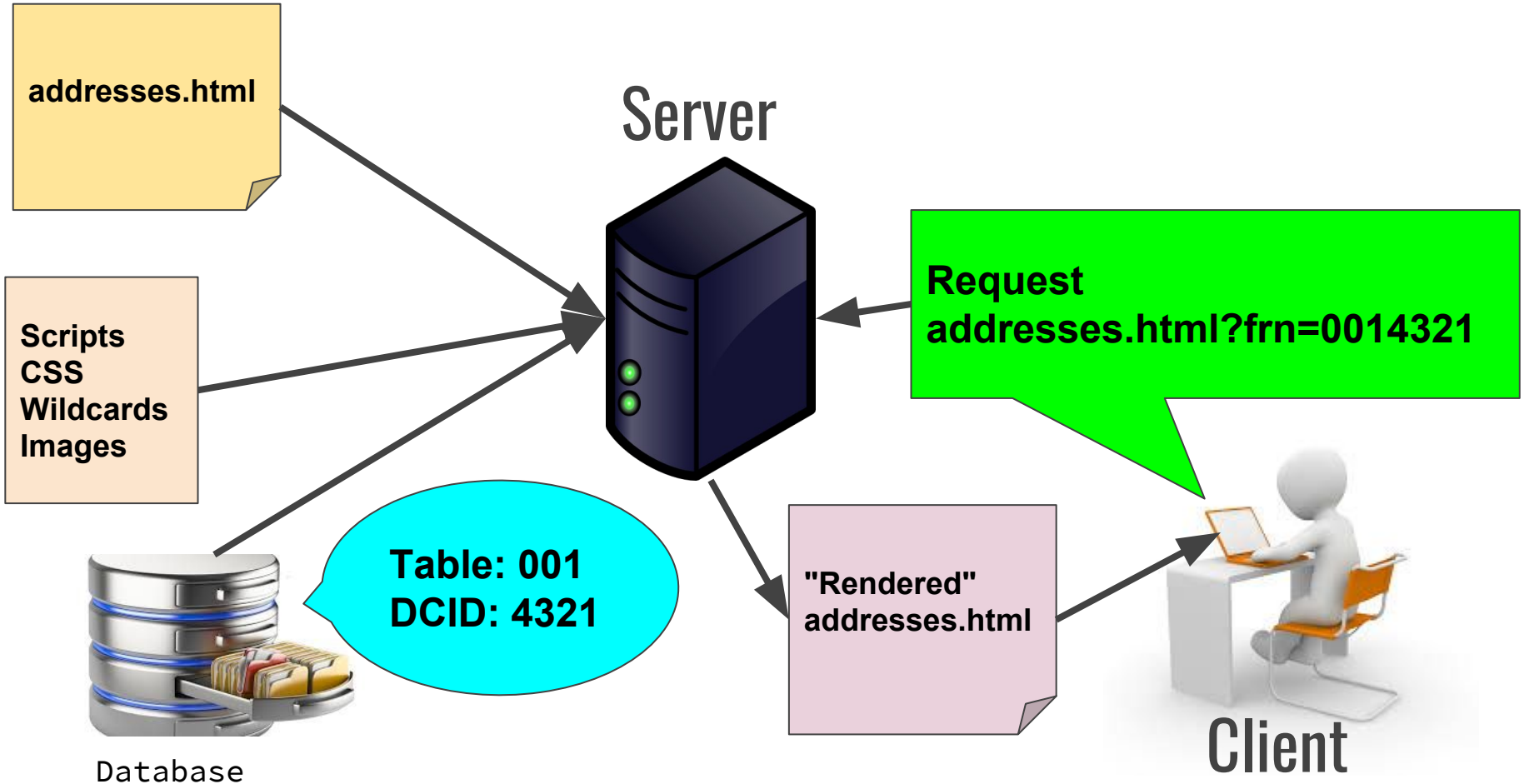

Server
Request
addresses.html?frn=0014321
Client


addresses.html
Server
Request
addresses.html?frn=0014321
Client


addresses.html
Server
Scripts
CSS
Wildcards
Images
Request
addresses.html?frn=0014321
Client


addresses.html
Server
Scripts
CSS
Wildcards
Images
Request
addresses.html?frn=0014321
Table: 001
DCID: 4321
Database
Client


addresses.html
Server
Scripts
CSS
Wildcards
Images
Request
addresses.html?frn=0014321
Table: 001
DCID: 4321
"Rendered"
addresses.html
Database
Client

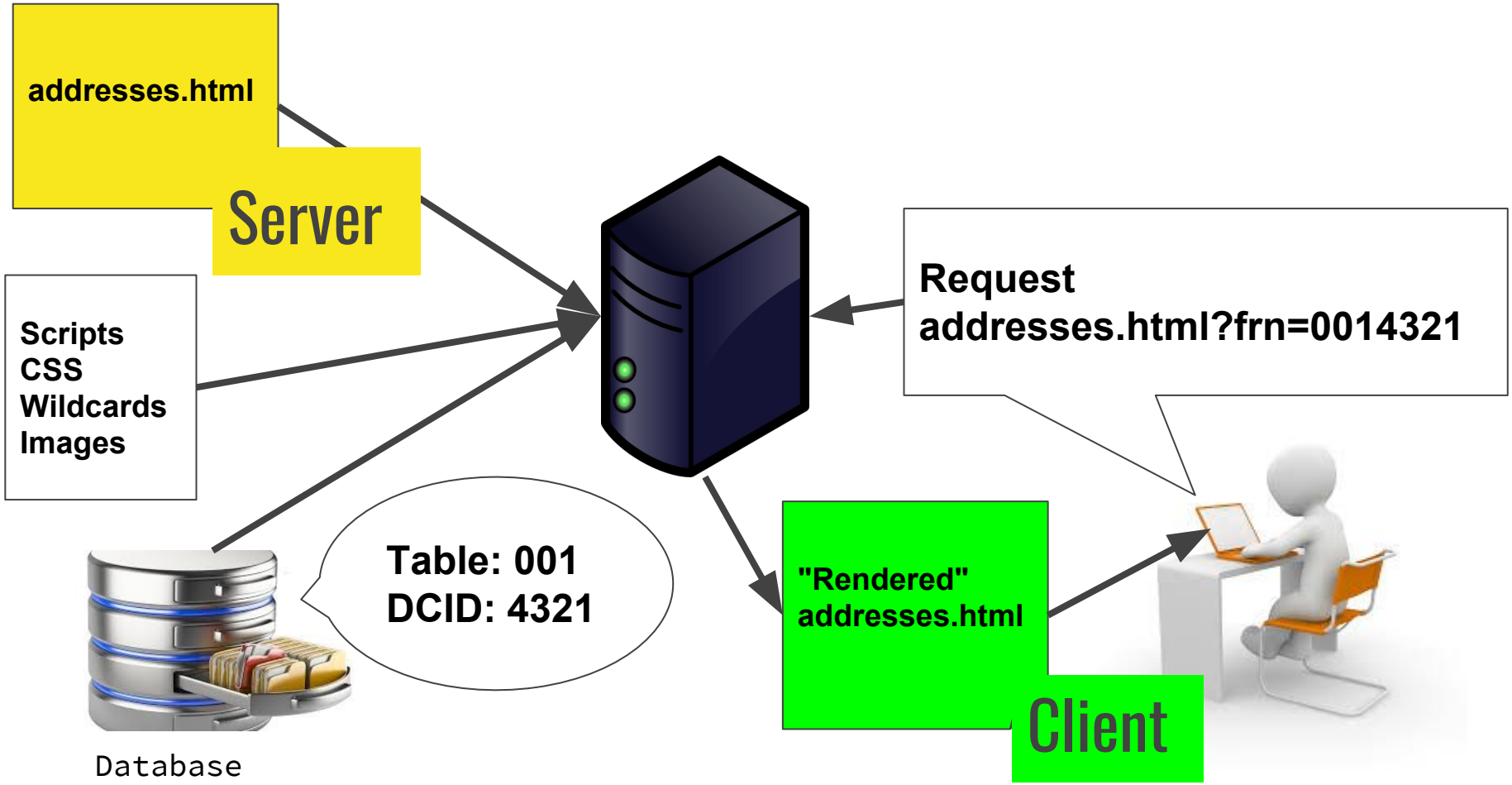

addresses.html
Server
Scripts
CSS
Wildcards
Images
Request
addresses.html?frn=0014321
Table: 001
DCID: 4321
"Rendered"
addresses.html
Database
Client

Role of FRN = "File Reference Number"

addresses.html?frn=0014321

Database

Table: 001
DCID: 4321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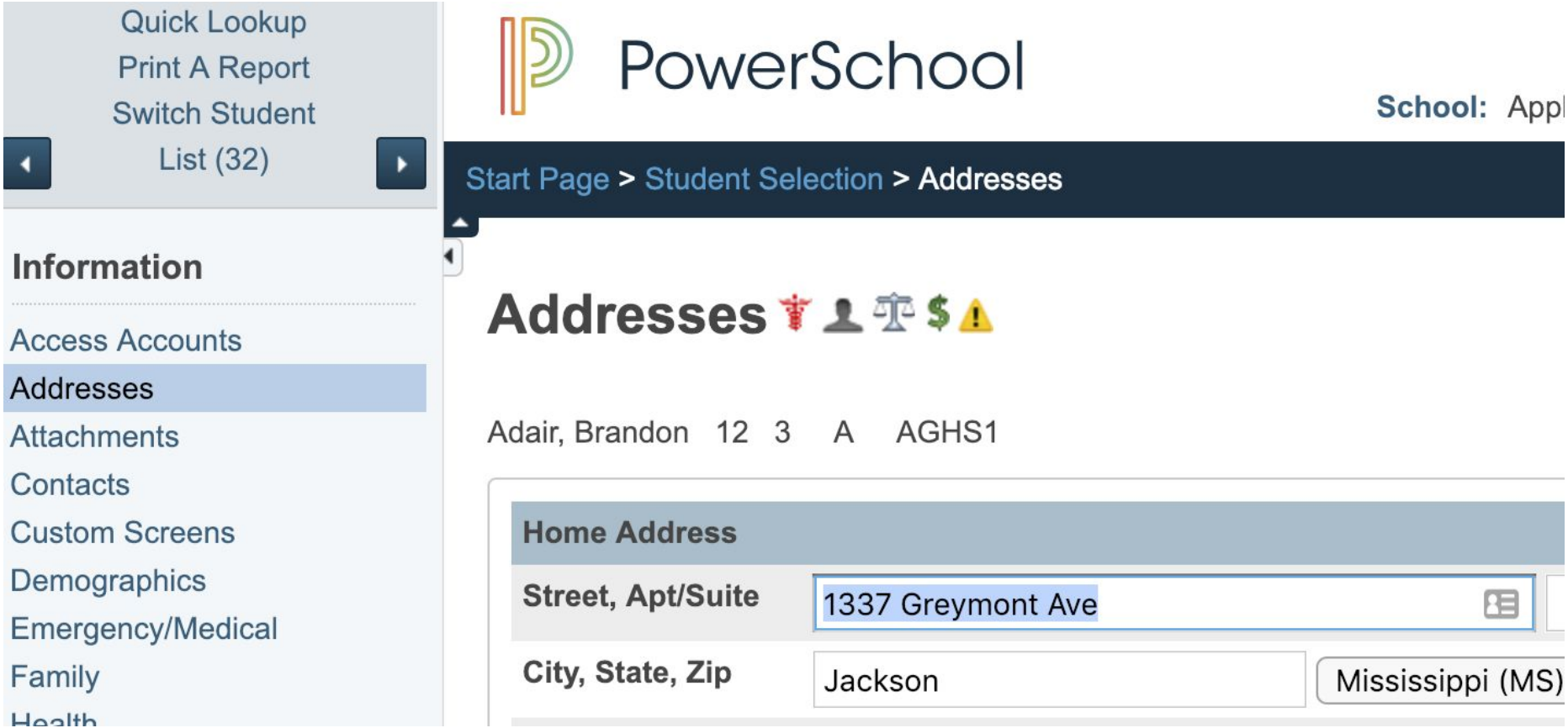
Basics of Server/Client Web Applications



Server Page - addresses.html

```
<html><head><title>~[text:psx.html.admin_students.addresses.addresses]</title>
~[wc:UI_js_includes]
~[wc:commonscripts]
<script src="/admin/javascript/student_copyAddress.js"></script>
<link href="/images/css/screen.css" rel="stylesheet" media="screen">
<link href="/images/css/print.css" rel="stylesheet" media="print">
</head>

<form action="/admin/changesrecorded.white.html" method="POST" ...>

<table ...>
<tr>
<td class="bold">~[text:psx.html.admin_students.addresses.street_aptsuite]</td>
<td><input type="text" name="[01]street" size="45" id="pstreet" value=""></td>
</tr>
```

Client Page - addresses.html

```
<html lang="en"><head><title>Addresses</title>

<link rel="stylesheet" type="text/css" href="/scripts/yui/container/assets/skins/sam/container.css" />
<link rel="stylesheet" type="text/css" href="/scripts/yui/button/assets/skins/sam/button.css">
<script src="/scripts/yui/utilities/utilities.js"></script>
<script src="/scripts/yui/container/container-min.js"></script>
<script src="/scripts/yui/button/button-min.js"></script>

<form action="/admin/changesrecorded.white.html" method="POST" ...>
<table ...>
LINE 675
<tr><td colspan="2" class="bold">Home Address</td></tr>
<tr><td class="bold">Street, Apt/Suite</td><td>
<input type="text" name="UF-0010222" size="45" id="pstreet"
    value="1337 Greymont Ave"
    data-validation='{"maxlength":"60","type":"text","key":"students.street"}'>
</td>
</tr>
```

Client Page - addresses.html

```
e>~[text:psx.html.admin_students.addresses.addresses]</
```

```
<html lang="en"><head><title>Addresses</title>
```

Client Page - addresses.html

```
~[wc:UI_js_includes]
~[wc:commonscripts]
```

```
<link rel="stylesheet" type="text/css"
href="/scripts/yui/container/assets/skins/sam/container.css" />
<link rel="stylesheet" type="text/css"
href="/scripts/yui/button/assets/skins/sam/button.css">
<script src="/scripts/yui/utilities/utilities.js"></script>
<script src="/scripts/yui/container/container-min.js"></script>
<script src="/scripts/yui/button/button-min.js"></script>
```

Client Page - addresses.html

```
<td class="bold">~[text:psx.html.admin_students.addresses.street_aptsuite]</td
```

```
<tr><td class="bold">Street, Apt/Suite</td><td>
```

Client Page - addresses.html

```
<input type="text" name="[01]street" size="45" id="pstreet" value="">
>
```

```
<input type="text" name="UF-0010222" size="45" id="pstreet"
    value="1337 Greymont Ave"
    data-validation='{"maxlength":"60","type":"text","key":"students.street"}'>
</td>
</tr>
```

Dissecting a PowerSchool Page

Tip: Student pages are in "frames". To use these special extensions right-click (ctrl-click) on the link to them and "Open link in new tab"

Special Page extensions

.htmlr

Render the page in the browser but do not process special PowerSchool tags.

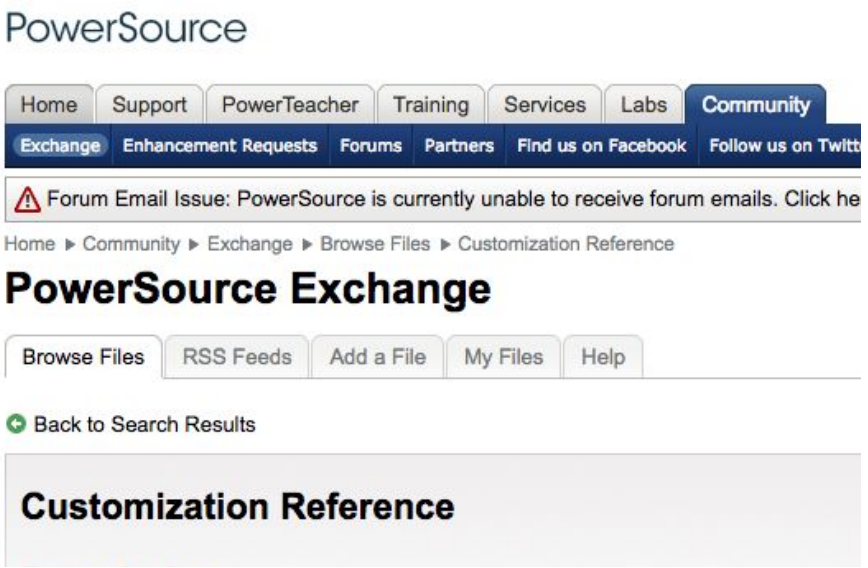
.htmlt

View the unrendered (server-side) page code in the browser window

Right-click (Windows) or Control-click (Mac) on a PowerSchool page and choose "Inspect" or "View Page Source" to see the rendered (client-side) code.

Recommended Plugin

"Customization Reference" by Eric Schaitel at Marcia Brenner Associates



PowerSource

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Forum Email Issue: PowerSource is currently unable to receive forum emails. Click here for additional details.

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PowerSource Exchange

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Customization Reference

Description:

This PowerSchool plugin puts a powerful customization reference right on your PowerSchool server. Topics include the following.

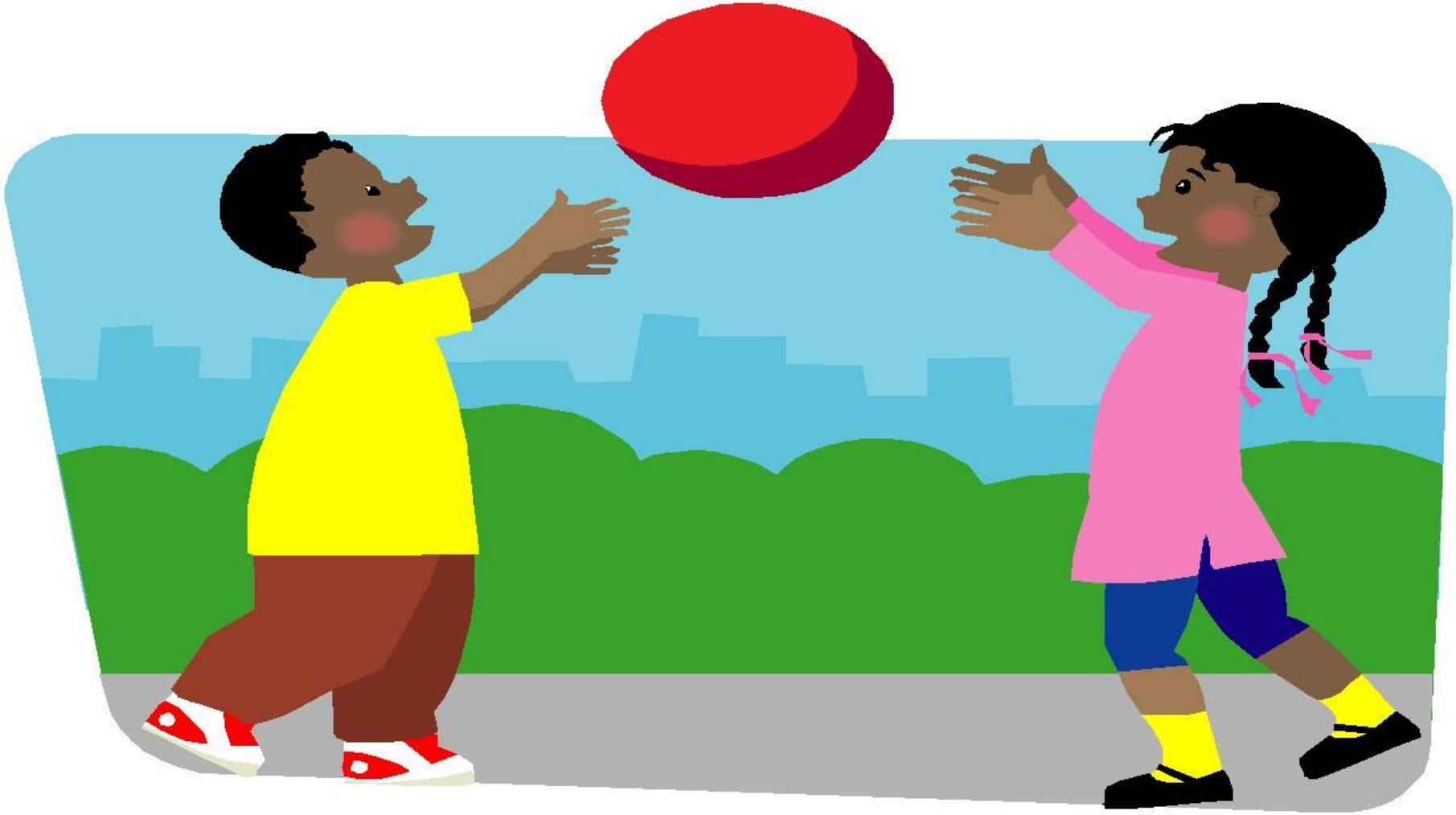
- HTML/CSS
- JavaScript / jQuery
- PSHTML (PowerSchool Custom Codes)
- tlist_sql

ID 772

Download

+77 votes

Screenshots

Click To Enlarge

Additional Details