



IBM Software Group

DB2 Express-C 9 overview course

Optimizing for PHP & Ruby on Rails

DB2 Information Management Software

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ON DEMAND BUSINESS™

What is PHP?

PHP is the most popular Web language in the world today:

70% of the UNIX-based, Apache Web platform market... 40% + of the overall market



PHP – Getting Started

welcome.php

```
<?php
$name = $_GET["first"] . ' ' . $_GET["last"];
?>

<h1>Hello <?php echo($name); ?></h1>
```

URL:

`http://localhost/welcome.php?first=Grant&last=Hutchison`

Output:



DB2 Connection options for PHP

- No single abstract data access interface
 - ▶ ODBC/JDBC

- PHP Drivers for DB2
 - ▶ **Recommended one:**
 - Extension for DB2 (ibm_db2)
 - ▶ **New Object Oriented database abstraction layer**
 - PHP Data Objects (PDO)
 - PDO_ODBC – Can be used with DB2 and other databases

- PHP drivers are offered under open-source licenses
 - ▶ <http://www.php.net>



Connecting to an uncatalogued database

```
$host = 'localhost';  
$port = 50000;  
$DSN = "DRIVER={IBM DB2 ODBC DRIVER};PORT=$port;  
        HOSTNAME=$host;DATABASE=$database;PROTOCOL=TCPIP;  
        USER=$user;PWD=$password";
```

ibm_db2

```
$uconn = db2_connect($DSN, null, null);
```

PDO_ODBC

```
try {  
    $uconn = new PDO("odbc:$DSN", null, null);  
}  
catch (PDOException $e) { print $e->errormsg(); }
```



Your first ibm_db2 application

```
<?php
$sql = "SELECT name, breed FROM ANIMALS
      WHERE weight < ?";
$conn = db2_connect($database, $user, $password);
$stmt = db2_prepare($conn, $sql);
$res = db2_execute($stmt, array(10));
while ($row = db2_fetch_assoc($stmt)) {
    print "{$row['NAME']} is a {$row['BREED']}.\\n";
}
?>
```



Configuring PHP for ibm_db2

- Modify php.ini (Linux / UNIX):
 extension=ibm_db2.so
 ibm_db2.instance_name=db2inst1
- Modify php.ini (Windows):
 extension=php_ibm_db2.dll
- Or Check out **Zend Core for IBM**



What is Zend Core?

Zend Core is:

A seamless out-of-the-box supported PHP development and production environment

For:

Business-critical web applications

Delivering:

Reliability, Productivity and **Flexibility**
needed for running PHP applications

Free download:

<http://ibm.com/software/data/info/zendcore/>



What is Ruby?

- Purely object oriented
- dynamic, scripting, open, cross platform
- rapid development, rich library
- simple & fun oriented programming
- Invented by Yukihiro Matsumoto (“Matz”) - 1995



What is Rails?

- Full-stack framework for database-backed web application
 - ▶ implements the model-view-control (MVC) architecture
 - ▶ Written in Ruby
 - ▶ incredibly productive, easy to use, conventions over configuration
 - ▶ one of the fastest emerging web framework since 2004
- Invented by David Heinemeier Hansson, late 2004
 - ▶ Rails 1.0 ships December 24, 2005
 - ▶ Rails 1.1 ships 3 months later



Startup Toolkit for DB2 on Rails

- ▶ Available on IBM alphaWorks
<http://www.alphaworks.ibm.com/tech/db2onrails>
- ▶ Integrated installer that creates a complete DB2 Ruby on Rails development environment on Windows
- ▶ Source code available for you to do your own builds on other platforms

