

1. What is PHP?

- PHP is an embedded scripting language for web pages
- PHP is free, multi-platform, and very widely used
- PHP specializes in talking to databases
- PHP is a full programming language with many low-level features

Support for PHP must be enabled on the web server.

PHP resources can all be located from www.php.net (including pointers to various excellent books).

2. PHP and databases

PHP has support for the following databases * Adabas D, * Direct MS-SQL, * Empress, * FilePro (read-only), * FrontBase, * IBM DB2, * Informix, * Ingres, * InterBase, * MySQL, * mSQL, * ODBC, * Oracle (OCI7 and OCI8), * PostgreSQL, * Solid, * Sybase, * Unix dbm, * Velocis, and * dBase.

It is probably most commonly used with MySQL and Postgres.

PHP also has support for talking to other services using protocols such as IMAP, SNMP, NNTP, POP3, HTTP etc

3. Apart from databases?

- Creating and manipulating images
- HTTP authentication
- Cookies
- Handling file uploads
- Using remote files
- Processing XML

4. Embedding PHP in HTML

- `<? echo ("this is the simplest, an SGML processing instruction\n"); ?>`
- `<?php echo("if you want to serve XML documents, do like this\n"); ?>`
- `<script language="php"> echo ("some editors (like FrontPage) don't like processing instructions"); </script>`
- `<% echo ("You may optionally use ASP-style tags"); %> <%= $variable; # This is a shortcut for "<?echo .." %>`

5. Simple example

```
<html>
<body>

<?php
echo "<b>hello world";
?>
```

```

</body>
</html>

```

6. Accessing variables and builtin functions

```

<html>
<body>
<p>This page was requested by

<?php
echo $HTTP_USER_AGENT
?> </p>

<p>on
<?php
echo date("l dS of F Y h:i:s A")
?>.</p>

</body>
</html>

```

7. Conditional execution

```

<html>
<body>
<p>This page was requested by

<?php
if (strstr($HTTP_USER_AGENT,"Mozilla")) {
?>
a Netscape browser

<?php
} else {
?>
a non-Netscape browser

<?php
}
?>
</p>

</body>

</html>

```

8. HTML form which calls PHP

```

<html>
<body>

<form action="test5.php"
method="post"

```

```

>
<textarea type="textarea"
  rows="1"
  cols="75"
  name="sql"
>
</textarea>

<input type="submit"
  ></input>

</form>

</body>

</html>

```

9. PHP responds to form and accesses database

```

<html>
<body>
<h1>Results</h1>

<?php
$connection=pg_connect("dbname=cem port=5432 user=wwwrun");
print "<p>Query was " . stripslashes($sql) . "\n";
$result = pg_exec($connection,stripslashes($sql). " ");
pg_close($connection);

print "<p>There are " . pg_numrows($result) . " rows returned\n";

print "<table border=3>";
for ($i=0; $i < pg_Numrows($result); $i++) {
  $row = pg_fetch_array($result, $i);
  print "<tr>";
  for ($j=0; $j < pg_Numfields($result); $j++) {
    {print "<td>$row[$j]</td>"; }
  }
print "</tr>\n"; }
print "</table>";

?>
</body>

</html>

```

10. PHP constructs form after database access

```

<html>
<body>
<p>Choose a name from the following list:
<form action="test7.php"
  method="post"
  >
<select name="who"
  size="10"

```

```

>

<?php
$connection=pg_connect("dbname=cem port=5432 user=wwwrun");
$result = pg_exec($connection,
    "select distinct surname from persons order by surname;");
pg_close($connection);

    for ($i=0; $i < pg_Numrows($result); $i++) {
        $row = pg_fetch_array($result, $i);
        print "<option>";
        print $row[0];
        print "</option>"; }

?>
</select>

<input type="submit"
></input>

</form>

</p>

</body>

</html>

```

11. Display of database information

```

<body bgcolor="white"
>

<?php
echo "<h1>Results for name $who</h1>\n";
$connection=pg_connect("dbname=cem port=5432 user=wwwrun");
$query="select * from persons where surname='" . $who . "'";
$result = pg_exec($connection,$query);
pg_close($connection);

print "<p>There are " . pg_numrows($result) .
" rows returned for query $query\n";
print "<table border=2>\n";
for ($i=0; $i < pg_Numrows($result); $i++) {
    $row = pg_fetch_array($result, $i);
    echo "<tr>";
    print "<td>" . trim($row["fname"]) ;
    print " <b>" . trim($row["surname"]) . "</b></td>";
    print "<td>" . $row["age"] . "</td>";
    print "<td>" . $row["died"] . "</td>";
    print "\n";
}
print "</table>\n";

?>
</body>

```

12. PHP result contains links which call PHP again

```

<html>
<body>
<h1>Results</h1>

<?php
$connection=pg_connect("dbname=cem port=5432 user=wwwrun");
print "<p>Query was " . stripslashes($sql) . "\n";
$result = pg_exec($connection,stripslashes($sql). "");
pg_close($connection);

print "<p>There are " . pg_numrows($result) . " rows returned\n";

print "<table border=3>";
for ($i=0; $i < pg_Numrows($result); $i++) {
    $row = pg_fetch_array($result, $i);
    print "<tr>";
    for ($j=0; $j < pg_Numfields($result); $j++) {
        print "<td>";
        if (pg_fieldname($result,$j) == 'surname')
            {
                $thisname=$row[$j];
print "<a href=\"test7.php?who=$thisname\">$thisname</a></td>"; }
            else
                { print $row[$j]; }
        print "</td>";
    }
    print "</tr>\n"; }
print "</table>";

?>
</body>

</html>

```

13. PHP: conclusions

If you want to *generate* complex web pages from a variety of sources, especially SQL databases, PHP is powerful and effective. But this is traditional computer programming, and you should not enter into it lightly. As with all programming, you have to *plan*, *structure*, and *document* your code.