Sessions

```
<html>
<head>
<title>Session Entry</title>
</head>
<body>
<form action="sessionOutput.php" method="POST">
   Your Name: <input type="text" name="name">
<input type="submit">
</form>
</body>
</html>
```

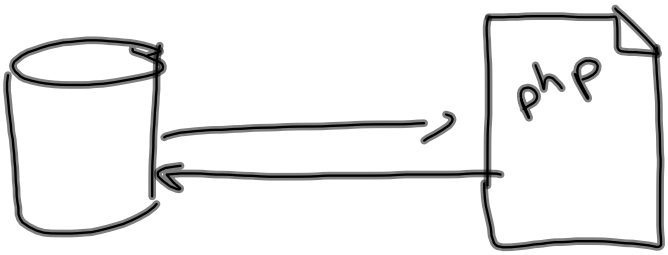
```
<?php
session_start();
?>
<html>
<head>
<title>Session Usage</title>
</head>
<body>
<?php
if(isset($_POST['name'])){
  echo "Hello " . $_POST['name'];
  $_SESSION['name']  = $_POST['name'];
}
else {
  echo "You have not signed in.";
}
?>
<a href="sessionTwo.php">Go to next page.</a>
</body>
</html>
```

```
<?php
session_start();
if(!isset($_SESSION['name'])){
  //go back to the login screen
  //must be done before ANY output
  header('Location: http://cs.gettysburg.edu/~cpresser/phpTest/sessionForm.php');
}
?>
<html>
<head>
<title>Session Two</title>
</head>
<body>
<?php
  echo "Hello again " . $_SESSION['name'];
?>
<a href="logout.php">Log out</a>
</body>
</html>
```

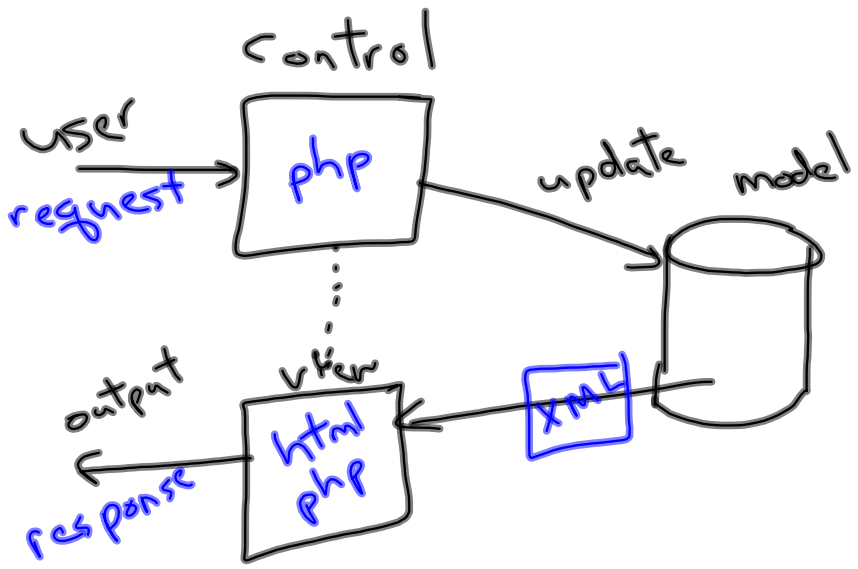
```
<?php
session_start();
session_destroy();
?>
<html>
<head>
<title></title>
</head>
<body>
Goodbye!
</body>
</html>
```

Model - View

↳ data ↳ interface



Model - View - Controller



Relational Algebra

Relation?

- set of tuples
- each element of the tuple is from a domain.

Relation R over domains A, B, C

R is a subset of $A \times B \times C$

operations

select $\sigma_{cond}(R)$

$\sigma_{salary>20000}(Employee)$

project $\pi_{attrib.}(R)$

$\pi_{FName,LName}(Employee)$

rename $\rho_{S(att1,att2..)}(R)$

relation attributes

$\rho_{Loc(Dnum,Location)}(DEPT\_LOCATIONS)$

Loc

Dnum	Location

$$HIGH\_SAL \leftarrow \sigma_{salary > 250000}(Employee)$$

$$\pi_{FNAME, LName}(HIGH\_SAL)$$

$\cap, \cup, -$

$\times$

A: a_1, a_2, a_3

B: b_1, b_2

$A \times B$

(a_1, b_1)
(a_1, b_2)
(a_2, b_1)
(a_2, b_2)
(a_3, b_1)
(a_3, b_2)

Join of R, S

$$\sigma_{r_i = s_j}(R \times S)$$

$$R \bowtie_{r_i = s_j} S$$