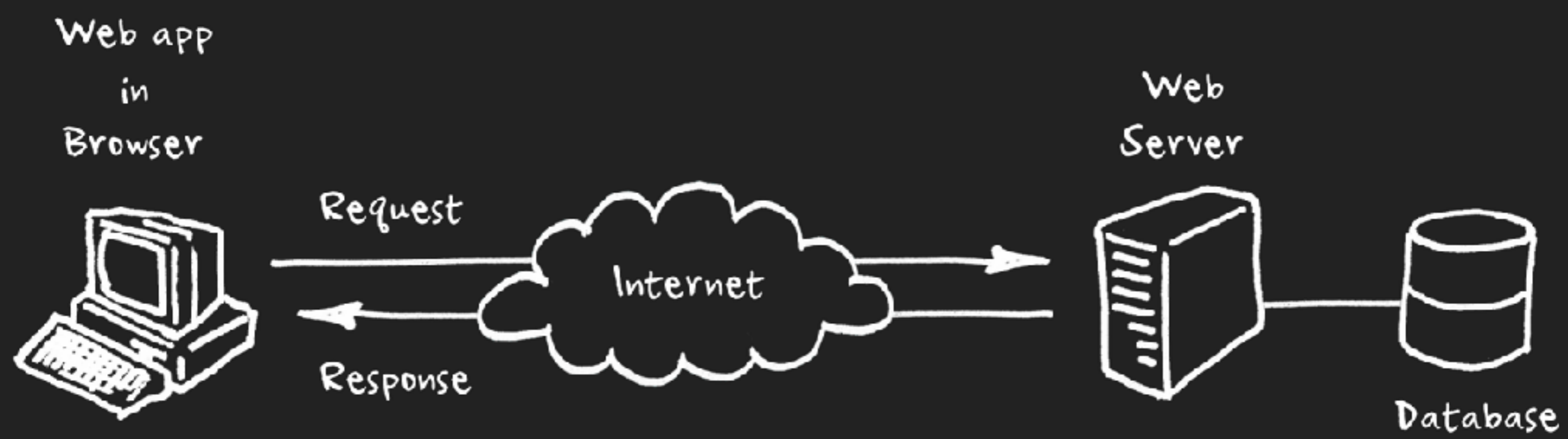


# Client/Server



# Document Object Model (DOM)

```
<html>

  <head>
    <title> Simple Web Page </title>
  </head>

  <body>
    <p> This is a simple web page with a form </p>

    <form>
      <!-- some HTML code -->
    </form>

    <script>
      // some Javascript code
      // . . .
    </script>

  </body>

</html>
```

# Document Object Model (DOM)

```
<html>
```

```
  <head>
```

```
    <title> Simple Web Page </title>
```

```
  </head>
```

```
  <body>
```

```
    <p> This is a simple web page with a form </p>
```

```
    <form>
```

```
      <!-- some HTML code -->
```

```
    </form>
```

```
    <script>
```

```
      // some Javascript code
```

```
      // . . .
```

```
    </script>
```

```
  </body>
```

```
</html>
```

# Document Object Model (DOM)

```
<html>

  <head>
    <title> Simple Web Page </title>
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  <body>
    <p> This is a simple web page with a form </p>

    <form>
      <!-- some HTML code -->
    </form>

    <script>
      // some Javascript code
      // . . .
    </script>

  </body>

</html>
```

# Document Object Model (DOM)

```
<html>
```

```
  <head>
```

```
    <title> Simple Web Page </title>
```

```
  </head>
```

```
  <body>
```

```
    <p> This is a simple web page with a form </p>
```

```
    <form>
```

```
      <!-- some HTML code -->
```

```
    </form>
```

```
    <script>
```

```
      // some Javascript code
```

```
      // . . .
```

```
    </script>
```

```
  </body>
```

```
</html>
```

# Document Object Model (DOM)

```
<html>

  <head>
    <title> Simple Web Page </title>
  </head>

  <body>
    <p> This is a simple web page with a form </p>

    <form>
      <!-- some HTML code -->
    </form>

    <script>
      // some Javascript code
      // . . .
    </script>

  </body>

</html>
```

# Document Object Model (DOM)

```
<html>

  <head>
    <title> Simple Web Page </title>
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  <body>
    <p> This is a simple web page with a form </p>

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      // some Javascript code
      // . . .
    </script>

  </body>

</html>
```

# Document Object Model (DOM)

```
<html>

  <head>
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  <body>
    <p> This is a simple web page with a form </p>

    <form>
      <!-- some HTML code -->
    </form>

    <script>
      // some Javascript code
      // . . .
    </script>

  </body>

</html>
```



# A meeting room reservation form

Your name: \*

Your email address: \*

Department: \*

- select -



Which room would you like to reserve: \*

- Room A
- Room B
- Room C

Extra requirements:

- Flipchart and pens
- Plasma TV screen
- Coffee, tea and mineral water

Reservation date \*



▶ Date format is YYYY-MM-DD

Reservation time :

09



00



Submit

# Forms (checkbox input)



```
i 1 <form>  
  2     <input type="checkbox"> (a checkbox)  
  3 </form>
```

# Forms (checkbox input)



```
i 1 <form>  
  2 <input type="checkbox"> (a checkbox)  
  3 </form>
```

# Forms (checkbox input)



```
i 1 <form>  
   2   <input type="checkbox"> (a checkbox)  
   3 </form>
```

# Forms (checkbox input)



```
i 1 <form>  
  2     <input type="checkbox"> (a checkbox)  
  3 </form>
```

(a checkbox)

# Forms (checkbox input)



```
i 1 <form>  
  2     <input type="checkbox"> (a checkbox)  
  3 </form>
```

(a checkbox)

# Forms (text input)



```
i 1 <form>  
  2     <input type="text" size="30" value="default text">  
  3 </form>
```

default text

# Forms (text input)



```
i 1 <form>  
2     <input type="text" size="30" value="default text">  
3 </form>
```

default text



# Forms (password input)



```
i 1 <form>  
  2     <input type="password" size="30">  
  3 </form>
```

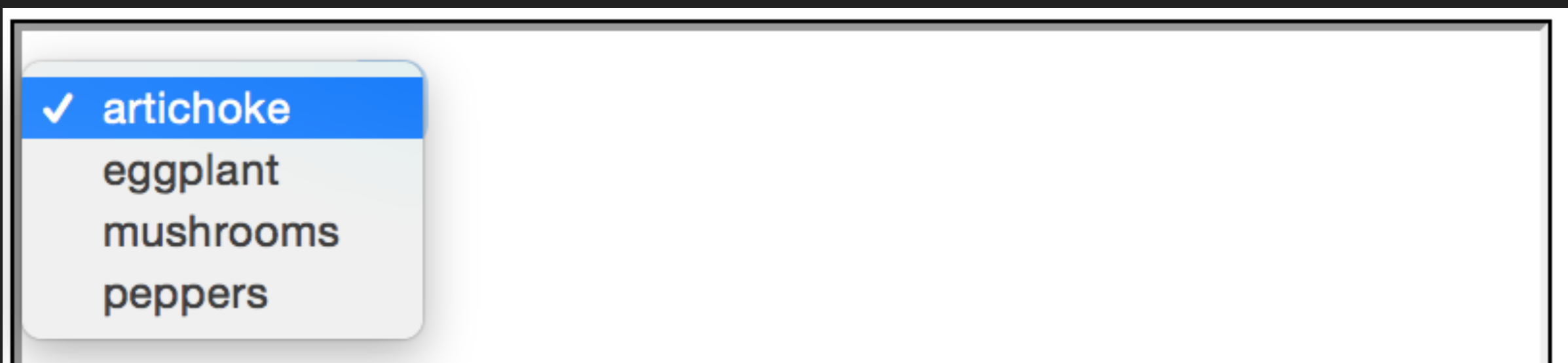
# Forms (file upload)

```
▶  
i 1 <form>  
  2   <input type="file">  
  3 </form>
```

no file selected

# Forms (select input)

```
▶  
1 <form>  
2   <select>  
3     <option>artichoke</option>  
4     <option>eggplant</option>  
5     <option>mushrooms</option>  
6     <option>peppers</option>  
7   </select>  
8 </form>
```



✓ artichoke  
eggplant  
mushrooms  
peppers

# Forms (file upload)



```
i 1 <button onClick="console.log('OK')">OK</button>
```

OK

# Forms (file upload)



```
i 1 <button onclick="console.log('OK')">OK</button>
```

OK

callback

# Forms (file upload)

The image shows a web browser's developer console. On the left, the code editor displays the following HTML snippet:

```
1 <button onclick="console.log('OK')">OK</button>
```

On the right, a preview of the button is shown with a mouse cursor hovering over it. The browser's developer tools interface is visible below the code editor, including the console, elements, network, and other panels. The console shows a log entry:

```
OK
```

The console also shows the source of the event: `onclick — lecture07.html:1`. The browser's address bar shows `Main Frame`.

# Submitting forms (client-side)



```
i 1 <form>
  2   Name: <input type="text" name="name"> <br>
  3   Password: <input type="password" name="password"> <br>
  4 </form>
```

Name:

Password:

# Submitting forms (client-side)



```
i 1 <form>
  2   Name: <input type="text" name="name"> <br>
  3   Password: <input type="password" name="password"> <br>
  4 </form>
```

Name:

Password:

name (server) vs. id (client)



# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
3   Password: <input type="password" name="password"> <br>  
4   <button type="submit">Log in</button>  
5 </form>
```

# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
3   Password: <input type="password" name="password"> <br>  
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5 </form>
```

# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">
  2   Name: <input type="text" name="name"> <br>
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  4   <button type="submit">Log in</button>
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```

# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
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# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
3   Password: <input type="password" name="password"> <br>  
4   <button type="submit">Log in</button>  
5 </form>
```

Name:

Password:

Log in

# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
3   Password: <input type="password" name="password"> <br>  
4   <button type="submit">Log in</button>  
5 </form>
```

Name:

Password:  




# Submitting forms (client-side)



```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
3   Password: <input type="password" name="password"> <br>  
4   <button type="submit">Log in</button>  
5 </form>
```

Name:

Password:  



# Submitting forms (client-side)

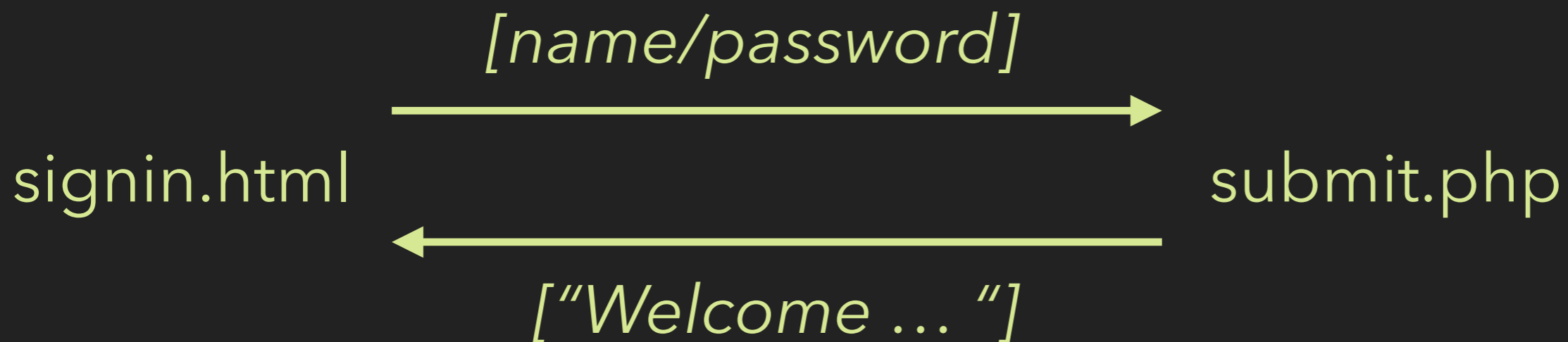
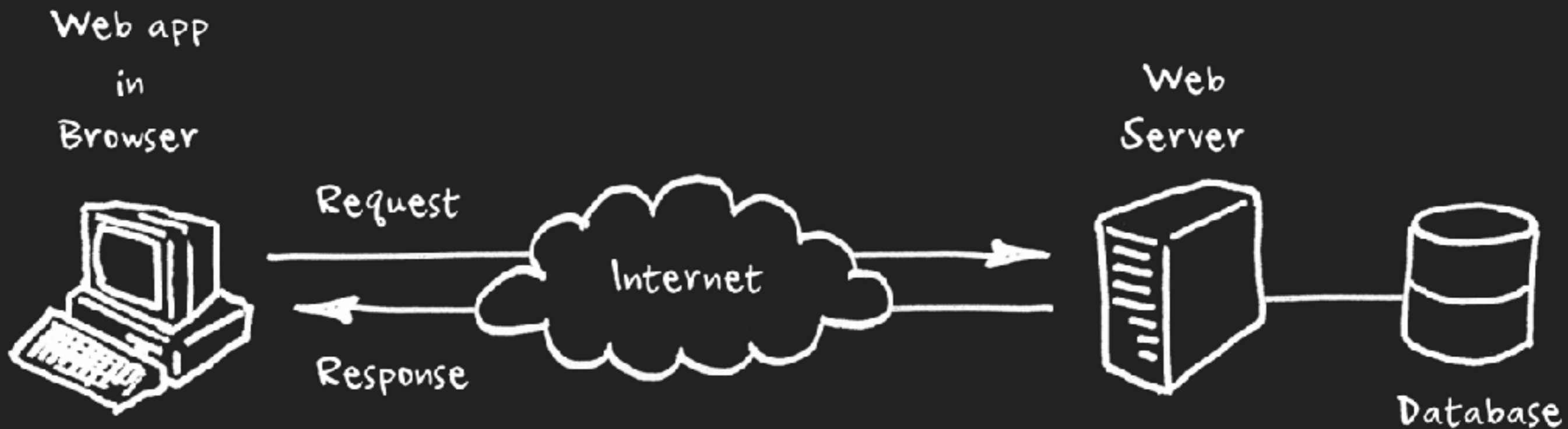


```
i 1 <form action="submit.php" method="POST">  
2   Name: <input type="text" name="name"> <br>  
3   Password: <input type="password" name="password"> <br>  
4   <button type="submit">Log in</button>  
5 </form>
```


Welcome hanyfarid, your password has 12 characters



# Client/Server



# Submitting forms (server-side)



```
1 <?php
2
3 print "Welcome " . $_POST["name"];
4 print ", your password has " . strlen($_POST["password"]) . " characters";
5
6 ?>
```

submit.php

# Submitting forms (server-side)



```
1 <?php
2
3 print "Welcome " . $_POST["name"];
4 print ", your password has " . strlen($_POST["password"]) . " characters";
5
6 ?>
```

submit.php

# Submitting forms (server-side)

```
▶  
1 <?php  
2  
3 print "Welcome " . $_POST["name"];  
4 print ", your password has " . strlen($_POST["password"]) . " characters";  
5  
6 ?>
```

submit.php

# Submitting forms (server-side)



```
1 <?php
2
3 print "Welcome " . $_POST["name"];
4 print ", your password has " . strlen($_POST["password"]) . " characters";
5
6 ?>
```

submit.php

# Submitting forms (server-side)

```
i 1 <form action="submit.php" method="POST">  
  2   Name: <input type="text" name="name"> <br>  
  3   Password: <input type="password" name="password"> <br>  
  4   <button type="submit">Log in</button>  
  5 </form>
```

```
1 <?php  
2  
3 print "Welcome " . $_POST["name"];  
4 print ", your password has " . strlen($_POST["password"]) . " characters";  
5  
6 ?>
```

submit.php

# Submitting forms (server-side)

```
i 1 <form action="submit.php" method="POST">  
  2   Name: <input type="text" name="name"> <br>  
  3   Password: <input type="password" name="password"> <br>  
  4   <button type="submit">Log in</button>  
  5 </form>
```

```
1 <?php  
2  
3 print "Welcome " . $_POST["name"];  
4 print ", your password has " . strlen($_POST["password"]) . " characters";  
5  
6 ?>
```

submit.php

# Exercise

<http://www.cs.dartmouth.edu/~dsa/exercise/html.html>

Select an option:

no file selected

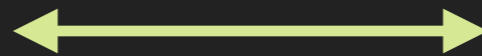
DEMO



# Exercise

<http://www.cs.dartmouth.edu/~dsa/exercise/html.html>

`type="radio"; name="option"; value="1"..."5"`



Select an option:

no file selected



`name="fileToUpload"`

`<form action="upload.php" method="post" enctype="multipart/form-data">`

```
<!DOCTYPE html>
<html>
  <body>
    <form action="upload.php" method="post"
      enctype="multipart/form-data">
      Select an option:
      <input type="radio" value="1" name="option" checked>
      <input type="radio" value="2" name="option">
      <input type="radio" value="3" name="option">
      <input type="radio" value="4" name="option">
      <input type="radio" value="5" name="option">

      <p> </p>

      <input type="file" name="fileToUpload">
      <input type="submit" value="Upload Image">
    </form>
  </body>
</html>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<form action="upload.php" method="post"  
  enctype="multipart/form-data">
```

Select an option:

```
<input type="radio" value="1" name="option" checked>
```

```
<input type="radio" value="2" name="option">
```

```
<input type="radio" value="3" name="option">
```

```
<input type="radio" value="4" name="option">
```

```
<input type="radio" value="5" name="option">
```

```
<p> </p>
```

```
<input type="file" name="fileToUpload">
```

```
<input type="submit" value="Upload Image">
```

```
</form>
```

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<form action="upload.php" method="post"  
  enctype="multipart/form-data">
```

```
Select an option:
```

```
<input type="radio" value="1" name="option" checked>
```

```
<input type="radio" value="2" name="option">
```

```
<input type="radio" value="3" name="option">
```

```
<input type="radio" value="4" name="option">
```

```
<input type="radio" value="5" name="option">
```

```
<p> </p>
```

```
<input type="file" name="fileToUpload">
```

```
<input type="submit" value="Upload Image">
```

```
</form>
```

```
</body>
```

```
</html>
```

```
<!DOCTYPE html>
<html>
  <body>
    <form action="upload.php" method="post"
      enctype="multipart/form-data">
      Select an option:
      <input type="radio" value="1" name="option" checked>
      <input type="radio" value="2" name="option">
      <input type="radio" value="3" name="option">
      <input type="radio" value="4" name="option">
      <input type="radio" value="5" name="option">

      <p> </p>

      <input type="file" name="fileToUpload">
      <input type="submit" value="Upload Image">
    </form>
  </body>
</html>
```

```
<!DOCTYPE html>
<html>
  <body>
    <form action="upload.php" method="post"
      enctype="multipart/form-data">
      Select an option:
      <input type="radio" value="1" name="option" checked>
      <input type="radio" value="2" name="option">
      <input type="radio" value="3" name="option">
      <input type="radio" value="4" name="option">
      <input type="radio" value="5" name="option">

      <p> </p>

      <input type="file" name="fileToUpload">
      <input type="submit" value="Upload Image">
    </form>
  </body>
</html>
```

```
<?php
$option = $_POST['option'];
$target_dir = "uploads/";
$target_file = $target_dir . basename($_FILES["fileToUpload"]["name"]);
$imageFileType = pathinfo($target_file,PATHINFO_EXTENSION);

// error checking...

$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
?>
```

upload.php

```
<?php
$option = $_POST['option'];
$target_dir = "uploads/";
$target_file = $target_dir . basename($_FILES["fileToUpload"]["name"]);
$imageFileType = pathinfo($target_file,PATHINFO_EXTENSION);

// error checking...

$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
?>
```

upload.php



```
<?php
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$target_dir = "uploads/";
$target_file = $target_dir . basename($_FILES["fileToUpload"]["name"]);
$imageFileType = pathinfo($target_file,PATHINFO_EXTENSION);

// error checking...

$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
?>
```

upload.php

```
<?php
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$target_dir = "uploads/";
$target_file = $target_dir . basename($_FILES["fileToUpload"]["name"]);
$imageFileType = pathinfo($target_file,PATHINFO_EXTENSION);

// error checking...

$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
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upload.php

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$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
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upload.php

```
<?php
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$target_dir = "uploads/";
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$imageFileType = pathinfo($target_file,PATHINFO_EXTENSION);

// error checking...

$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
?>
```

upload.php

```
<?php
$option = $_POST['option'];
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if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
?>
```

upload.php

```
<?php
$option = $_POST['option'];
$target_dir = "uploads/";
$target_file = $target_dir . basename($_FILES["fileToUpload"]["name"]);
$imageFileType = pathinfo($target_file,PATHINFO_EXTENSION);

// error checking...

$target_file = $target_dir . basename($_FILES["fileToUpload"]["tmp_name"]) . ".jpg";

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $target_file)) {
    if( $option == "1" ) {
        shell_exec( "convert " . $target_file . " -background white -flip " . $target_file . "_warp.jpg" );
    } elseif( $option == "2" ) {
        shell_exec( "convert " . $target_file . " -background white -wave 10x64 " . $target_file . "_warp.jpg" );
    } elseif( $option == "3" ) {
        shell_exec( "convert " . $target_file . " -background white -implode 0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "4" ) {
        shell_exec( "convert " . $target_file . " -background white -implode -0.6 " . $target_file . "_warp.jpg" );
    } elseif( $option == "5" ) {
        shell_exec( "convert " . $target_file . " -background white -swirl 180 " . $target_file . "_warp.jpg" );
    }
    echo "";
?>
```

upload.php