Online Experiments!
Why Online Experiments?

- Convenient
- Quick
- Cheap
- Easy participation
- Heterogeneous pool
- Large N
  - http://testmybrain.org/
  - implicit.harvard.edu
- Geographically dispersed population
- Special populations
  - expertise.psy.vanderbilt.edu
Disadvantages

• Participants can easily to quit
• Apparatus choice
• Hardware variability
  • Crump, McDonnell, & Gureckis, 2013
  • Simcox & Fiez, 2014
<table>
<thead>
<tr>
<th></th>
<th>In-Lab Experiment</th>
<th>Web-Based Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>recruitment</td>
<td>local participant</td>
<td>worldwide</td>
</tr>
<tr>
<td>experiment hardware</td>
<td>consistent, high quality</td>
<td>varying</td>
</tr>
<tr>
<td>participant engagement</td>
<td>good (relatively)</td>
<td>varying (overall bad)</td>
</tr>
<tr>
<td>apparatus choice (e.g. EEG)</td>
<td>abundant</td>
<td>limited</td>
</tr>
</tbody>
</table>
In-Lab Experiment

Experiment is run through a desktop application such as Matlab

Results are stored directly on lab computer
Web-based Experiment

Program is stored remotely on another machine.

Experiment is accessed via an address and run in a browser such as Chrome.

*Cannot just use Matlab* (Details to come!)
Experiments of Perceptual Expertise

Welcome. Here we have created tests of visual recognition and memory to understand what makes expert perceivers experts. Our current focus is on birds of all levels of experience, from new beginners to renowned experts.

New Participants: Register
Returning Participants: Log In
(forgot your login? Click Here)

Logged In: Go to the Experiments (User Panel)
(you must be logged in)

Feel free to check out who we are and the plans for this website and our research.

Finally, thanks to our sponsors:
Experiments of Perceptual Expertise

Questionnaire

Please fill out the information below. In order to be entered into the drawings for gift certificates or memberships after completing experiments, please enter your mailing address below. (* denotes required field. Please be assured that your information remains confidential with us. These information are only used in research analysis.)

Contact Information

<table>
<thead>
<tr>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Email</td>
</tr>
<tr>
<td>Secondary Email</td>
</tr>
</tbody>
</table>

Demographic Information

Year of birth [e.g., 1975] __________

Select gender: □ Female □ Male □ Other

Do you have any neurological condition that might affect your vision, hearing, memory, or thinking? □ Yes □ No □ Refuse to answer

Birding Experience

Do you consider yourself a birdwatcher? Are you interested in birds? Answer yes if you're someone who merely enjoys identifying birds at your bird feeder or on a hike, someone who regularly does birding as a hobby, or are a professional with expertise in bird identification or ornithology. If yes, answer the remaining questions:

[ ] Yes

At what age did you first develop an interest in birds?

[ ]

At what age did you first start birding relatively seriously (e.g., spending time learning bird identifications, going on planned bird walks, joining local Audubon or ornithological societies, etc.)?
User Panel

All experiments available to you are listed below. You can find out more about an experiment by clicking on the "More Details" button. You can also participate in an experiment by clicking on the "Continue Experiment" button. If you have started an experiment and wish to continue, click on the "Continue Experiment" button for that experiment.

MATCHING AND MEMORY EXPERIMENT
The drawing is now closed, but you still can participate in this experiment! The first part of this experiment will test your ability to match pictures of cars and birds as fast as you can. The second part of the experiment will test your memory using bird and car images.

SIMILARITY JUDGMENT
Drawing still open
Beauty lies in the eyes of the beholder. What about similarity? Do pairs of birds look similar to you to the same extent as every other birder? Help us find out. The drawing is now closed, but you can still participate.

BIRD EXPERTISE TEST 2014
This is a test of your bird identification skill. You will identify a series of birds. On each trial, you are given an image of the bird and four options to choose from. There are 94 trials that vary in difficulty. The test should take about 15 minutes. (Recommended browser: Google Chrome)

IDENTIFY THAT BIRD
Drawing still open
This is a test of your bird identification skill with a select set of Warblers and Sparrows. The test should take about 15 minutes. (Recommended browser: Google Chrome)

SEQUENTIAL MATCHING
Drawing still open
In this experiment, you make pairs of different images for two populations.
Experiments of 
Perceptual Expertise

Informed Consent: Similarity Judgment

Before participating in this experiment, please read the following informed consent document completely and understand that the material contained in it has been understood. If you agree to the terms of this consent document, signify your agreement to participate and whether you want to be entered into the drawing for this experiment at the bottom of this page. A PDF copy of the consent document is available for download.

Vanderbilt University Institutional Review Board
Informed Consent Document for Research

Principal Investigator: Thomas J. Palmer, Ph.D.
Study Title: Studies of Expertise
Institution/Hospital: Vanderbilt University
Revision Date: May 29, 2015
Date of IRB Approval: March 14, 2016
Date of IRB Expiration: March 13, 2017

SINGLE SESSION CONSENT FORM

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully and feel free to ask any questions you may have about this study and the information given below. You will be given an opportunity to ask questions, and your questions will be answered. Also, you will be given a copy of this consent form.

Your participation in this research study is voluntary. You are also free to withdraw from this study at any time. In the event new information becomes available that may affect the risks or benefits associated with this research study or your willingness to participate in it, you will be notified so that you can make an informed decision whether or not to continue your participation in this study.

1. Purpose of the study:
   The purpose of the study is to understand how people perceive, identify, and recognize birds, other animals, and objects. The specific goals will be explained in the instructions accompanying the web-based experiment.

   You are being asked to participate in a research study because you have an interest in bird watching or ornithology.

2. Procedure to be followed and approximate duration of the study:
   Participation in this experiment will involve identifying, remembering, or recognizing birds, other animals, or objects presented on a computer monitor. Before you begin your first experiment with us, we will ask for some demographic information and for some information about your experience identifying birds and other animals and objects.

   The exact procedures will be described online before you start the experiment. But to give you a sense of the kind of tasks you might be asked to participate in, here are a few examples: You might be asked to quickly judge whether a picture of a bird depicted a House Sparrow or a Chipping Sparrow or whether a picture of a dog depicted a Dalmatian or a Rottweiler. You might be asked to view a picture of a bird (or a dog or face) flashed briefly and then be asked to say whether a new picture seen later was the same as different.
Free access to Birds of North American Online (bna.birds.conell.edu) ($40 value), or a one-year online electronic subscription to the Cornell Lab ($15 value). The odds of winning are approximately 1/125.

7. Circumstances under which the Principal Investigator may withdraw you from study participation:
The only reason why the PI might ask you to withdraw from the study would be gross failure to follow the instructions provided by the experimenters.

8. What happens if you choose to withdraw from study participation:
You have the right to discontinue participation in the study at any time. You can withdraw by simply exiting your web browser.

9. Contact Information:
If you have any question about this research study or possible injury, please feel free to contact Thomas Palmer at 615-343-7506 or thomas.j.palmer@vanderbilt.edu.

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the Vanderbilt University Institutional Review Board Office at (615) 322-2918 or toll free at (866) 224-8275.

10. Confidentiality:
All efforts, within reason, will be made to keep your personal information in your research record confidential but total confidentiality cannot be guaranteed. Your information may be shared with institutional and/or governmental authorities, such as the Vanderbilt University Institutional Review Board if you or someone else is in danger or if we are required to do so by law.

☐ I freely and voluntarily choose to participate.

Do you want to be entered into a drawing to win an Amazon gift card.
☐ Yes ☐ No

Continue
Welcome!

In this experiment, you will be asked to judge the similarity of bird species. You will be presented with two bird images at a time and a slider scale from "Most dissimilar" to "Most similar".

Please make your judgment based on how similar the two bird species are. Ignore superficial characteristics like image sizes or bird orientations.

Note that we remove the pictures after 3 seconds, so you can focus on the species, rather than the pictures themselves.

Click "Next" to see a few examples. Enjoy!
1/5 completed. Great job!

Please see below a distribution of the choices you have made so far.
In this experiment, you will try to match pictures of cars and birds as fast as you can. On each trial, you will first see a picture of a bird which will disappear after 1 second, and be followed by an irrelevant scrambled image that you can ignore. A second bird will then appear.

You should press "S" if the second image is the SAME as the first. Press the "D" key if the second image is DIFFERENT from the first.

You should try to make as few mistakes as possible, but you should always try to respond as fast as you can.

Press any key to continue
Press S if this bird is the same species as the first. Press D if they are different.
Welcome!

The following is a test of your bird knowledge. In this test, you will identify many different bird species. An image of a bird will be presented along with 4 species names. Your task is to choose the correct species name for the bird presented in the image. The choice options are labeled 1, 2, 3, and 4. You will make your responses by pressing the corresponding key on the keyboard.

At the end of the test, you will be provided a bird expertness score. This task is difficult and we expect that even the best bird experts will not get all the multiple-choice questions correct.

The entire test lasts approximately 10 minutes. Click below to begin.
keep participants engaged

• Because it is so easy to exit the online experiment, it is especially important in online experiments to keep participants engaged

• clear instructions (including demo if necessary)
• aesthetics
• feedback
• progress bar
• Include frequent breaks
• must not be overly difficult
• cannot be too lengthy
Test my brain

https://testmybrain.org/
Online recruitment methods

• SONA participants can be recruited and sent to online experiment instead of having them come into the lab
## Study Information

<table>
<thead>
<tr>
<th>Study Name</th>
<th>speeded categorization of birds, dogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Type</td>
<td>Web Study</td>
</tr>
<tr>
<td></td>
<td>This is an online study. Participants are not given the study URL until after they sign up.</td>
</tr>
<tr>
<td>Study Status</td>
<td>Not visible to participants: Not Approved</td>
</tr>
<tr>
<td></td>
<td>Inactive study: Does not appear on list of available studies</td>
</tr>
<tr>
<td></td>
<td>Online (web) study: Administered outside the system</td>
</tr>
<tr>
<td>Duration</td>
<td>60 minutes</td>
</tr>
<tr>
<td>Credits</td>
<td>2 Credits</td>
</tr>
<tr>
<td>Website</td>
<td><img src="#" alt="View Study Website" /></td>
</tr>
<tr>
<td></td>
<td><img src="#" alt="Sample Link with Embedded ID Code" /></td>
</tr>
<tr>
<td></td>
<td>Completion URLs:</td>
</tr>
<tr>
<td></td>
<td><a href="https://vanderbilt.sona-systems.com/webstudy_credit.asp">https://vanderbilt.sona-systems.com/webstudy_credit.asp</a> (client-side)</td>
</tr>
<tr>
<td></td>
<td><a href="https://vanderbilt.sona-systems.com/services/SonaAPI.svc">https://vanderbilt.sona-systems.com/services/SonaAPI.svc</a> (server-side)</td>
</tr>
</tbody>
</table>

## Restrictions

<table>
<thead>
<tr>
<th>Sign-Up Restrictions</th>
<th>Must NOT have signed up or completed ANY of these studies:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- dog, bird categorization</td>
</tr>
<tr>
<td></td>
<td>- dog, bird categorization II - Part 1</td>
</tr>
<tr>
<td></td>
<td>- dog, bird categorization II - Part 2</td>
</tr>
<tr>
<td>Prescreen Restrictions</td>
<td>YES</td>
</tr>
</tbody>
</table>

## Additional Study Information

<table>
<thead>
<tr>
<th>Timeslot Usage Limit</th>
<th>0 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic Credit Granting</td>
<td>Credit will be automatically granted to participants where no action was taken, after the participation deadline (timeslot) is more than 24 hours old. Automatic credit grant is done once per day.</td>
</tr>
<tr>
<td>Participant Sign-Up Deadline</td>
<td>0 hours before the study is to occur</td>
</tr>
<tr>
<td>Participant Deadlines</td>
<td>0 hours before the study is to occur</td>
</tr>
</tbody>
</table>
Online Recruitment Methods

• Can use social media and websites with special communities to recruit participants
  • E.g. bird and car experts have websites that can be used to recruit participants using email lists and website advertisements
Recruitment Platforms

• Amazon Mechanical Turk (AMT)
  • Most popular platform
  • “Requesters” post ads for Human Intelligence Tasks (HITs) and “workers” complete HITs in exchange for payment
  • Can restrict access to people from certain regions
  • Can restrict access to workers who have poor ratings from other requesters
Mechanical Turk is a marketplace for work.
We give businesses and developers access to an on-demand, scalable workforce.
Workers select from thousands of tasks and work whenever it's convenient.

415,911 HITs available. View them now.

Make Money by working on HITs
HITs - Human Intelligence Tasks - are individual tasks that you work on. Find HITs Now.

As a Mechanical Turk Worker you:
• Can work from home
• Choose your own work hours
• Get paid for doing good work

Get Results from Mechanical Turk Workers
Ask workers to complete HITs - Human Intelligence Tasks - and get results using Mechanical Turk. Get Started.

As a Mechanical Turk Requester you:
• Have access to a global, on-demand, 24 x 7 workforce
• Get thousands of HITs completed in minutes
• Pay only when you're satisfied with the results

Find your account. Lose your tasks. Get results.
### Add additional information to your profile:

Provide information to enable Requesters to make more relevant Tasks available. Click [here](#) to find and complete Profile Tasks.

### All HITs

#### 1-10 of 3283 Results

<table>
<thead>
<tr>
<th>Requester</th>
<th>HIT Expiration Date</th>
<th>Reward</th>
<th>Time Allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td>amturk</td>
<td>Nov 30, 2017 (52 weeks)</td>
<td>$0.00</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Chris Callison-Burch</td>
<td>Sep 26, 2017 (42 weeks 5 days)</td>
<td>$0.04</td>
<td>60 minutes</td>
</tr>
<tr>
<td>Chris Callison-Burch</td>
<td>Sep 19, 2017 (41 weeks 6 days)</td>
<td>$0.04</td>
<td>60 minutes</td>
</tr>
<tr>
<td>ScoutIt</td>
<td>Dec 7, 2016 (6 days 23 hours)</td>
<td>$0.01</td>
<td>2 hours</td>
</tr>
</tbody>
</table>

#### More HITs...

- Order English to Chinese - Simplified translations by their quality.
- Order Hungarian to English translations by their quality.
- Extract purchased items from a shopping receipt (1-2 items)
- Help build a knowledge base: Are these facts true for most objects?
Running Platforms

• simple (e.g., survey)
  • redcap
  • surveyMonkey
  • Qualtrics
  • mTurk

• sophisticated (e.g., RT experiment)
  • your server
  • domain (mTurk API, web hosting)
simple experiments (survey)

New Bird Questions Survey

Our laboratory is trying to establish a valid and reliable test of birding skill for a research project on the development of expertise. You may have completed the current version of the test on our website (http://expertise psy.vanderbilt.edu). To assess a broader range of birding skill, we are looking to add some more difficult questions to our current test. To achieve this goal, we came up with 35 new bird identification questions that we need to evaluate. If you have a few minutes, we would appreciate your feedback on these new items.

If you have any questions or suggestions, please contact Dr. Thomas Palmeri (thomas_palmeri@vanderbilt.edu) at Vanderbilt University.

Thank you for your time. Your participation is greatly appreciated!

1. Please identify the bird.
   - Hoary Redpoll
   - Pine Siskin
   - Cassin’s Finch
   - Common Redpoll
   - * must produce result
PSYCHOLOGY (A&S) Travel Pre-Authorization Request

TRAVEL TERMS AND CONDITIONS

University travelers are responsible for ensuring that they have the necessary approval to take a trip prior to committing any university funds (including research funds, charity funds, and contract and grant funds) or incurring expenses. Additionally, within Arts and Science, travelers are responsible for coordinating with the department chair/program director (or designee) to ensure that funds are available to pay for the travel and that scheduled travel does not interfere with teaching and mentoring responsibilities.

Vanderbilt Travel Policy


Department of Psychology Receipt Requirements

Itemized receipts are required for all expenditures no matter the amount. This includes meal receipts.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traveler’s Name</td>
<td>* must provide value</td>
</tr>
<tr>
<td>Status</td>
<td>* must provide value</td>
</tr>
<tr>
<td>Departure Date</td>
<td>* must provide value, M-D-Y</td>
</tr>
<tr>
<td>Return Date</td>
<td>* must provide value, M-D-Y</td>
</tr>
<tr>
<td>Trip To</td>
<td>* must provide value, e.g. name of organization, conference, institution, etc</td>
</tr>
<tr>
<td>Location</td>
<td>* must provide value, city, state, country</td>
</tr>
</tbody>
</table>
### Extract purchased items from a shopping receipt (1-2 items)

**Hit Reward:** $0.01 per item + Bonus: $0.01 for every 4 items.

**Important Note:** Whole Foods receipts are tricky. View the example receipt to ensure you earn reward for this HIT.

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Qty</th>
<th>Item Description</th>
<th>Price</th>
<th>Per Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Item</td>
<td>1</td>
<td>Example Description</td>
<td>25.97</td>
<td>6.50</td>
</tr>
<tr>
<td>2</td>
<td>Item</td>
<td>1</td>
<td>Example Description</td>
<td>12.99</td>
<td>6.50</td>
</tr>
</tbody>
</table>

What is the transaction date & time on the receipt?

- **Transaction Date:** 11/28/2016
- **Time:** HH : MM

**Subtotal:**

**Sales Tax:**

**Total:** 1.00
sophisticated experiments

• your server
  • details to come

• mTurk API
  • https://aws.amazon.com/documentation/mturk/

• Web hosting
  • https://www.digitalocean.com/

• Psiturk!
  • psiturk.org
THE CROWD

VIEWS

YOUR EXPERIMENT AD

SERVES

POST

PSITURK

YOUR EXPERIMENT

PSITURK
$ pip install psiturk

[psiTurk server: on mode: sdbx #HITs:0]$ hit create
number of participants? 10
reward per HIT? 1.00
duration of hit (in hours)? 24

[psiTurk server: on mode: sdbx #HITs:0]$ hit list --active

[psiTurk server: on mode: sdbx #HITs:0]$ worker approve --hit 28K4SME3ZZ2M3I004SETTXTTTTAG44LT
psiTurk

• Advantages
  • No need to set up server
  • Makes payment automatic

• Disadvantages
  • Relies on psiturk cloud services which have been known to go down occasionally
  • Only available for Mac and Linux, but not Windows
TurkGate

• Advantages
  • Keeps track of participation across experiments
  • Makes payment automatic

• Disadvantages
  • Requires a server to be set up
Section 2 – Web/Server Architecture
Web-based Experiment

1. A request is made for a webpage

2. The server runs code to generate the web page

3. The browser displays the web page
What is a server?

A server is just a computer with a web server program running on it.
Web Server Architecture
Getting Dedicated IP/DNS Addresses

http://it.vanderbilt.edu/services/catalog/
https://it.vanderbilt.edu/services/dns/policy/index.php
Getting Dedicated Hosting Services
Section 3 – Web Programming
Web Browsers Compatibility
Hello World!
HTML

```html
<!DOCTYPE html>
<html>
<body>
<img src="hello_world.jpg" style="width:300px;height:50px;"/>
</body>
</html>
```
Cascading Style Sheets

```html
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" type="text/css" href="hello_world.css">
</head>
<body>
  Hello World!
</body>
</html>
```
HTML Forms

Text
Password
Radio Button
  - Male
  - Female
Checkbox
  - breakfast
  - lunch
  - dinner
Text Area

Submit  Reset  Send  Cancel
HTML Forms

```html
<!DOCTYPE html>
<html>
<body>
<form action="new_page_to_go_to.html">
  Name:<br>
  <input type="text" name="text_name_1"><br>
  Password:<br>
  <input type="password" value="password_value_1"><br><br>
  <input type="submit" value="Send">
</form>
</body>
</html>
```
SQL Databases
**SQL Databases**

### SubjectID, QuestionID, Response, Time

<table>
<thead>
<tr>
<th>SubjectID</th>
<th>QuestionID</th>
<th>Response</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>One</td>
<td></td>
<td>00:00:01.05</td>
</tr>
<tr>
<td>2</td>
<td>One</td>
<td></td>
<td>00:00:03.04</td>
</tr>
<tr>
<td>3</td>
<td>One</td>
<td></td>
<td>00:00:03.25</td>
</tr>
<tr>
<td>2</td>
<td>Two</td>
<td></td>
<td>00:00:25.09</td>
</tr>
<tr>
<td>1</td>
<td>Two</td>
<td></td>
<td>00:00:31.41</td>
</tr>
</tbody>
</table>

### QuestionID, Question Text, Display Information, HTML

<table>
<thead>
<tr>
<th>QuestionID</th>
<th>Question Text</th>
<th>Display Information</th>
<th>HTML</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Apples or Oranges?</td>
<td>🍎 🍊</td>
<td>&lt;html&gt;...&lt;/html&gt;</td>
</tr>
<tr>
<td>Two</td>
<td>Would you like a banana?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SQL Databases

```
CREATE table developer (display_name VARCHAR(50), first_name VARCHAR(50), last_name VARCHAR(50), location VARCHAR(50),
fathers_name VARCHAR(50), mobile BIGINT, address_line1 VARCHAR(50), address_line2 VARCHAR(50));

-- Adding multiple records into developer table using SQL INSERT
INSERT INTO developer(display_name, first_name, last_name, location, fathers_name, mobile, address_line1, address_line2)
VALUES('neo', 'developer', 'duke', 'HYD', 'awesome', 99999999999, 'enrichstreet', 'dukeneo'),
('developer', 'developer', 'duke', 'HYD', 'awesome', 11111111111, 'enrichstreet', 'dukeneo'),
('awesome', 'developer', 'duke', 'HYD', 'awesome', 22222222222, 'enrichstreet', 'dukeneo'),
('duke', 'developer', 'duke', 'HYD', 'awesome', 33333333333, 'enrichstreet', 'dukeneo'),
('enrich', 'developer', 'duke', 'HYD', 'awesome', 55555555555, 'enrichstreet', 'dukeneo'),
('designer', 'developer', 'duke', 'HYD', 'awesome', 66666666666, 'enrichstreet', 'dukeneo'),
('dukeneo', 'developer', 'duke', 'HYD', 'awesome', 77777777777, 'enrichstreet', 'dukeneo'),
('neo', 'developer', 'duke', 'HYD', 'awesome', 88888888888, 'enrichstreet', 'dukeneo');

SELECT * FROM developer;
```
Server-Side Scripting

Client Request

Server Response

[script.file]

script.file

<html>

script.file

php

python

Rails

ASP.net

Perl
Server-Side Scripting – PHP

```html
<?php
// Your PHP Code embedded in HTML
// ...
// ...
?>
</body>
</html>
```
Server-Side Scripting – PHP

```php
<?php
$servername = "localhost"; $username = "username"; $password = "password"; $dbname = "myDB";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

$sql = "SELECT id, firstname, lastname FROM MyGuests";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    // output data of each row
    while($row = $result->fetch_assoc()) {
        echo "id: " . $row["id"] . " - Name: " . $row["firstname"] . " " . $row["lastname"] . "<br>";
    } else {
        echo "0 results";
    }
}$conn->close(); ?>
```
Server-Side Scripting – Python

#!/usr/bin/env python

print "Content-type: text/html\n\n"
print "<html>Hello world!</html>"
Client-Side Scripting

Diagram showing a computer (client-side) communicating with a server (server-side) through a webpage and script.js file.
Server-Side Scripting – Javascript

```html
<!DOCTYPE html>
<html>
<body>

<!--Click the button to trigger a function that will output "Hello World" in a paragraph with id="demo".-->

<button onclick="myFunction()">Click me</button>

<p id="demo"></p>

<script>
function myFunction() {
    document.getElementById("demo").innerHTML = "Hello World";
}
</script>

</body>
</html>
```
Section 4 – Putting it all together
Setting up a Server
Where does it execute?
Where does stuff go?

www.yoursite.com/somefolder

SQL