



# NODE.JS

WEEK 9 – 10/21/2019



## ANNOUNCEMENTS

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Homework 2 has been posted. Please get started ASAP.

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This week's lab is on Node.js

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Please make sure Postgres is installed on your computer.

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Lab manuals have more information. Please click on those buttons for examples similar to the problem at hand

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Canvas isn't calculating grades according to grade breakdown. Please don't freak out!

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Project Presentations are going to begin the week after the break. Please be prepared to sign up for slots in a couple of weeks.

# MIDTERM ISSUES



## Wi-Fi issues: Poor connectivity in Fleming 155

### Solution:

- No more exams in Fleming
- No exam room will have more than 60 students



## Grade too low

### Solution 1:

- Make-up final exam
- Complete syllabus
- Week 16 – TBD
- Will replace the lower of the 2 midterm scores

### Solution 2:

- Do all the extra credit questions going forward
- Invest time in the project



## Questions taking too long to load:

### Solution:

- I will make sure the questions are all on the same page instead of 1 question per page

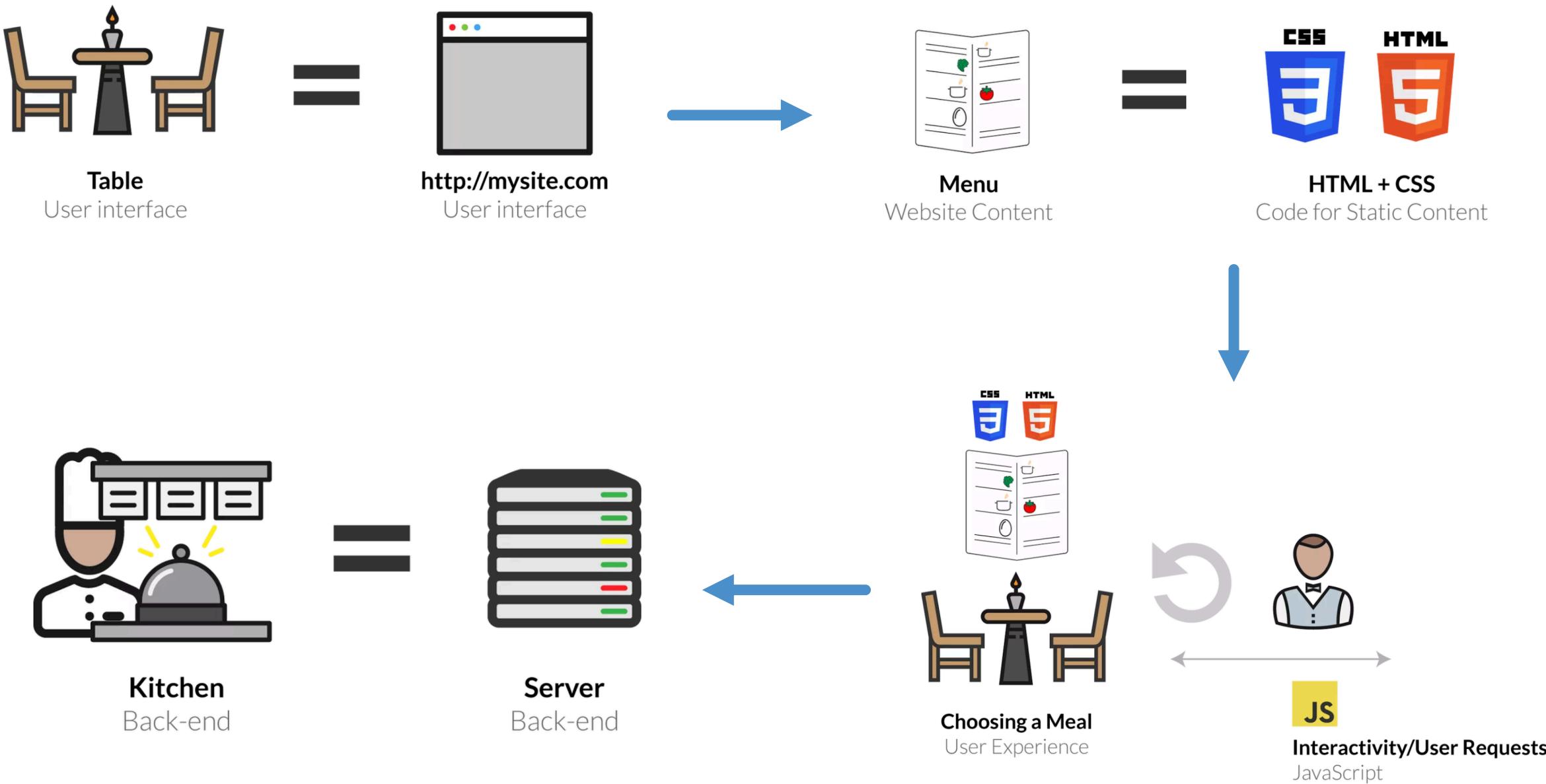
## POINTERS FOR NEXT MIDTERM

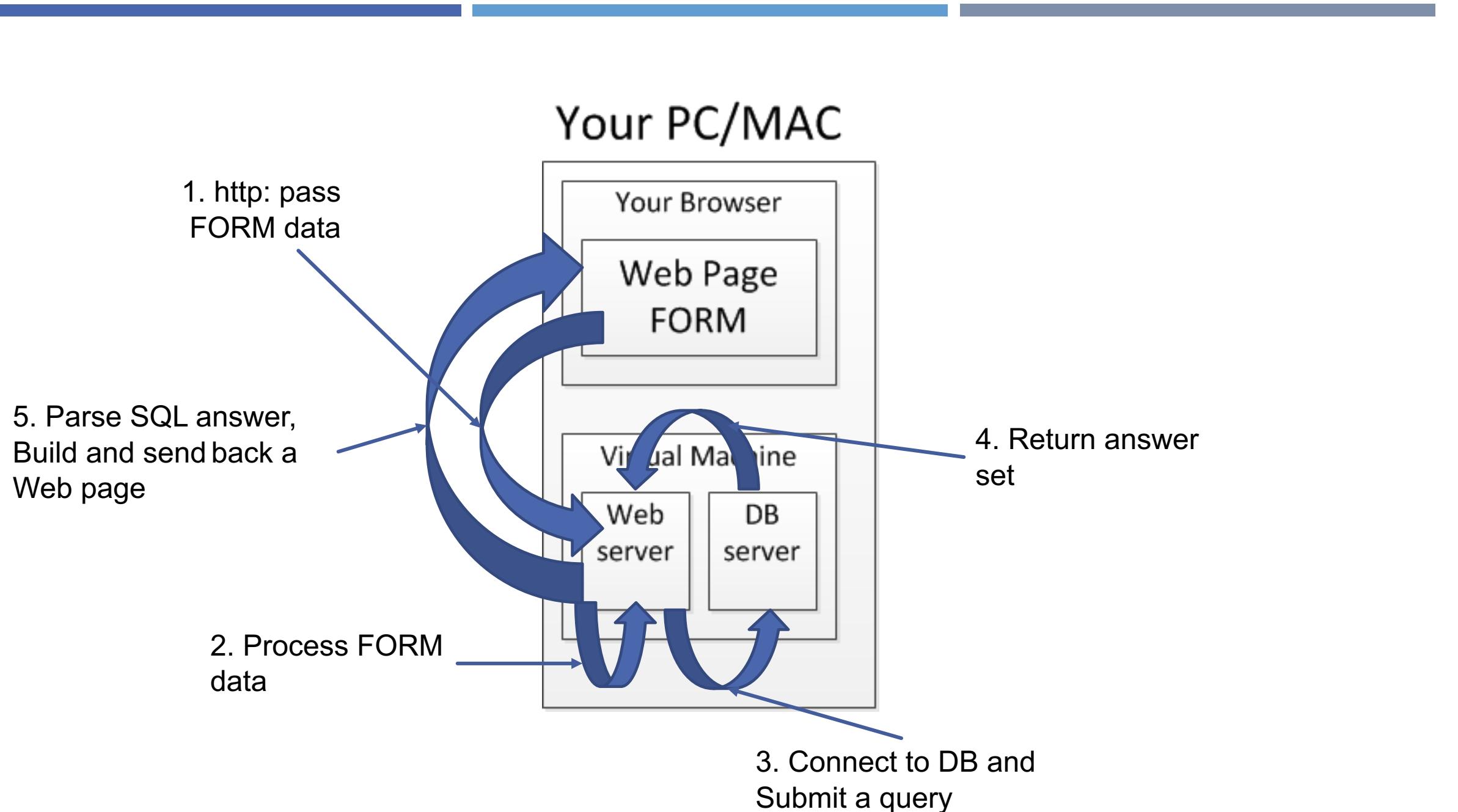
- If you have a doubt about the question, please ASK the proctor in the room.
  - I will ensure they know that helping out with questions about the question on the quiz is fair game
- If you have Wi-Fi issues, please LET THE PROCTOR KNOW ASAP
- Do not get lost looking for answers in lecture notes or other material (It's a rabbit hole)
- Ensure you keep an eye out for the timer on the top of your page
- Read the questions and options carefully! The difference between the options might be very minute
- PLEASE SIGN THE ATTENDANCE SHEET IF YOU WANT YOUR QUIZ SCORE TO BE COUNTED!

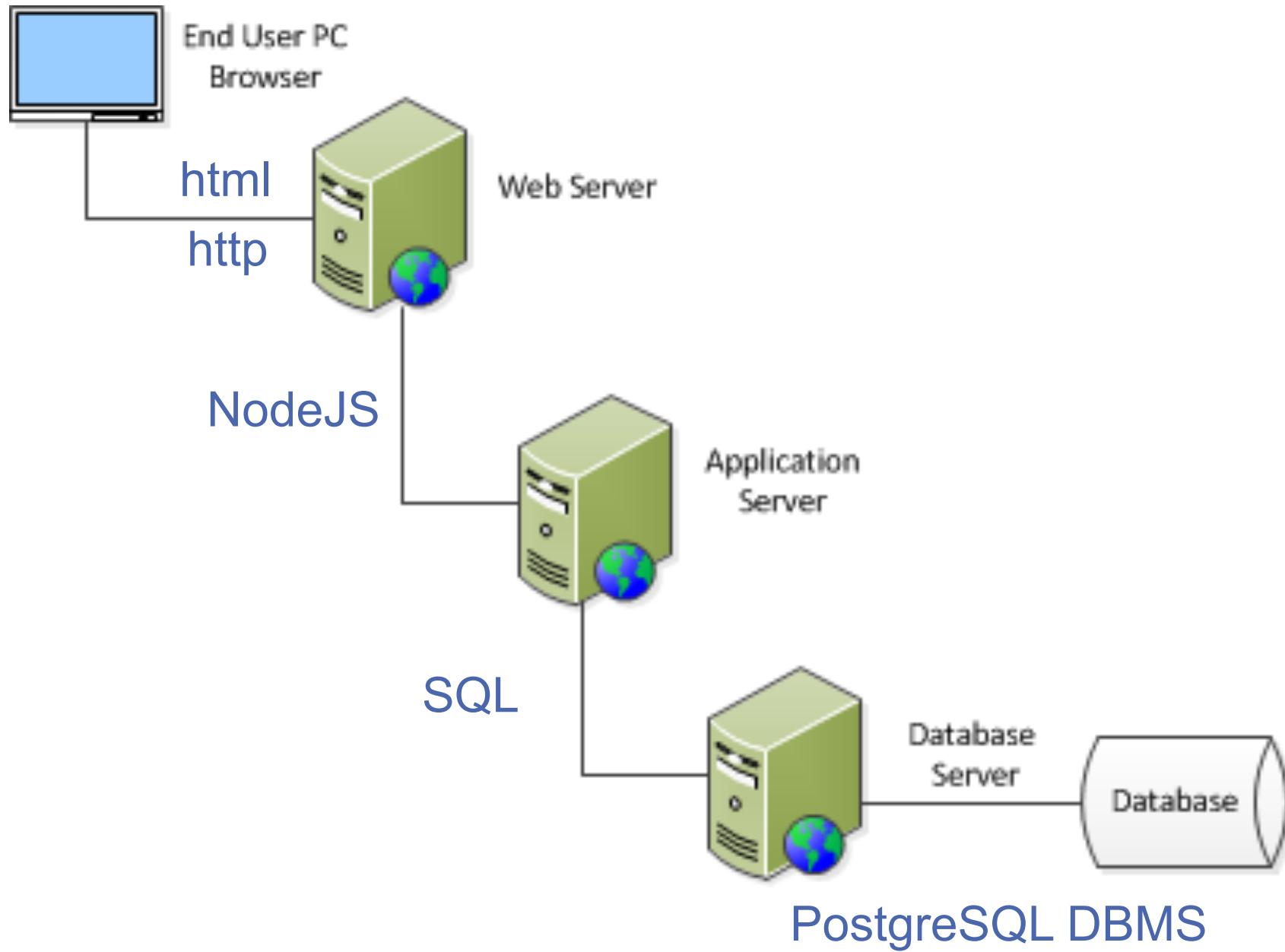
# FEEDBACK

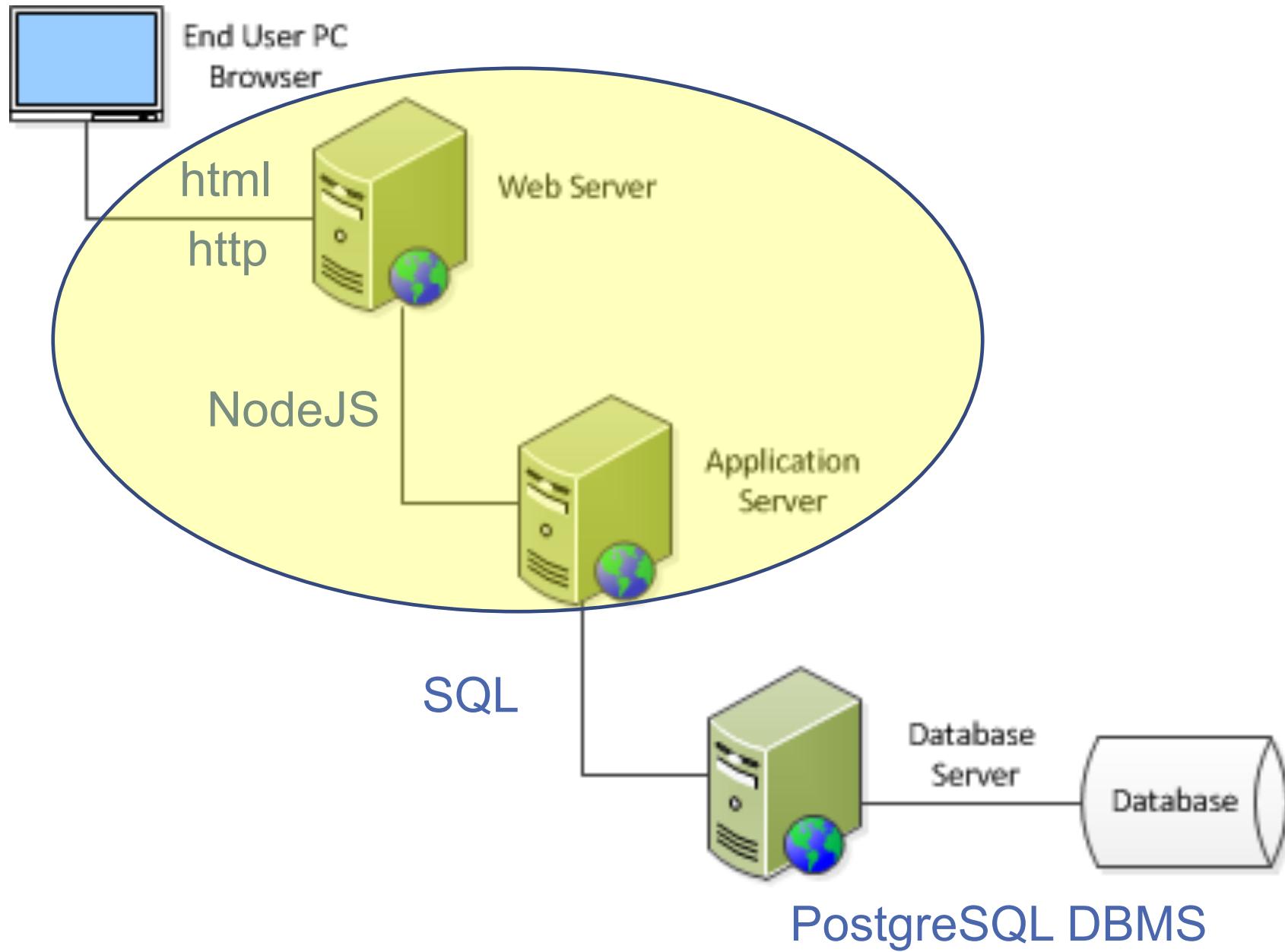
- <https://forms.gle/6zyqnwoGxSwXBUQk9>

# COMMUNICATION ACROSS THE STACK









## NODE JS BASICS

**NodeJS is a multi-purpose server-side processing engine.**

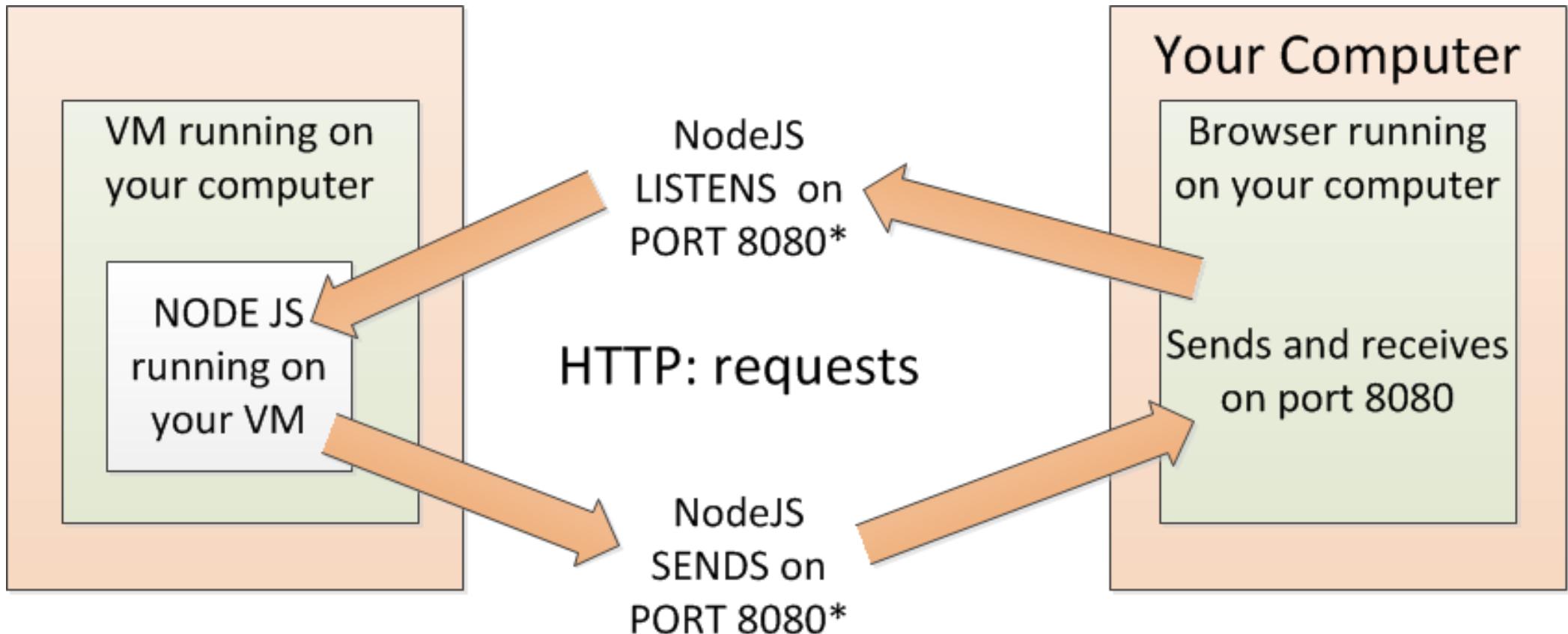
- It is Open-Source (GPL – Gnu Public License)
- It is FREE
- It runs anywhere (Windows, Linux, Unix, Mac OS X)
- It uses the Java Script programming language – the “default” language for most web-based applications.
- It looks good on your resume.

## NODE JS BASICS

### **NodeJS can process HTTP requests from your browser:**

- Node.js code can generate dynamic page content – it *creates* the HTML on the fly
- Node.js code can create, open, read, write, delete, and close files on the server
- Node.js code can collect and process form data from an HTML page
- Node.js code can read, add, change, delete data in your database

# NODE.JS ARCHITECTURE



\* or similar port

# HTML FORMS

## ■ How are they used?

- Use the browser's window as a data entry screen
- Collect information from the user
- Pass it to the web server via http
- Invoke a server-side script
- Passes **form data** as input to the script
- Script on server parses out the form data

# HTML FORMS

- <form> tag has several attributes – two are required
  - ACTION
    - <form action="http://URL"> name of a program on the web server
    - URL specifies the location of the executable file on the web server
    - <form action="mailto:mailrecipient"> sends an email
  - METHOD
    - <form method="POST" > or <form method="GET">
    - **POST** when you have large amount of data being sent, encryption available, a two-step process
    - **GET** for small amounts, no security – all in one step
- <form enctype=
- multipart/form-data (default)
  - text/plain (used only for mailto)

## UPCOMING LAB

- Next week (October 28 – Nov 1) is Lab 8
  - Also counts for Milestone # 3
  - Group Interviews during Recitation
  - **Attendance is MANDATORY – Do NOT miss !!**
  - Expect to remain in your recitation room for the duration of the recitation period
  - When your team is not being interviewed by your TA, you can use this time for work on your project
  - Come Prepared !

## UPCOMING LAB

- Lab 8 - Preparation
  - You will be asked several questions in the interview:
    - Application concept, design and architecture?
    - What have you accomplished so far?
    - What will you be working on next?
    - Individual task assignments
    - Live DEMO of working components
      - Front-End Screens
      - Back-End Database Design

## LINK TO PROJECT MILESTONE 3

- <https://sreeshanath.github.io/Project%20Milestones/Project%20Milestone%203/index.html>