

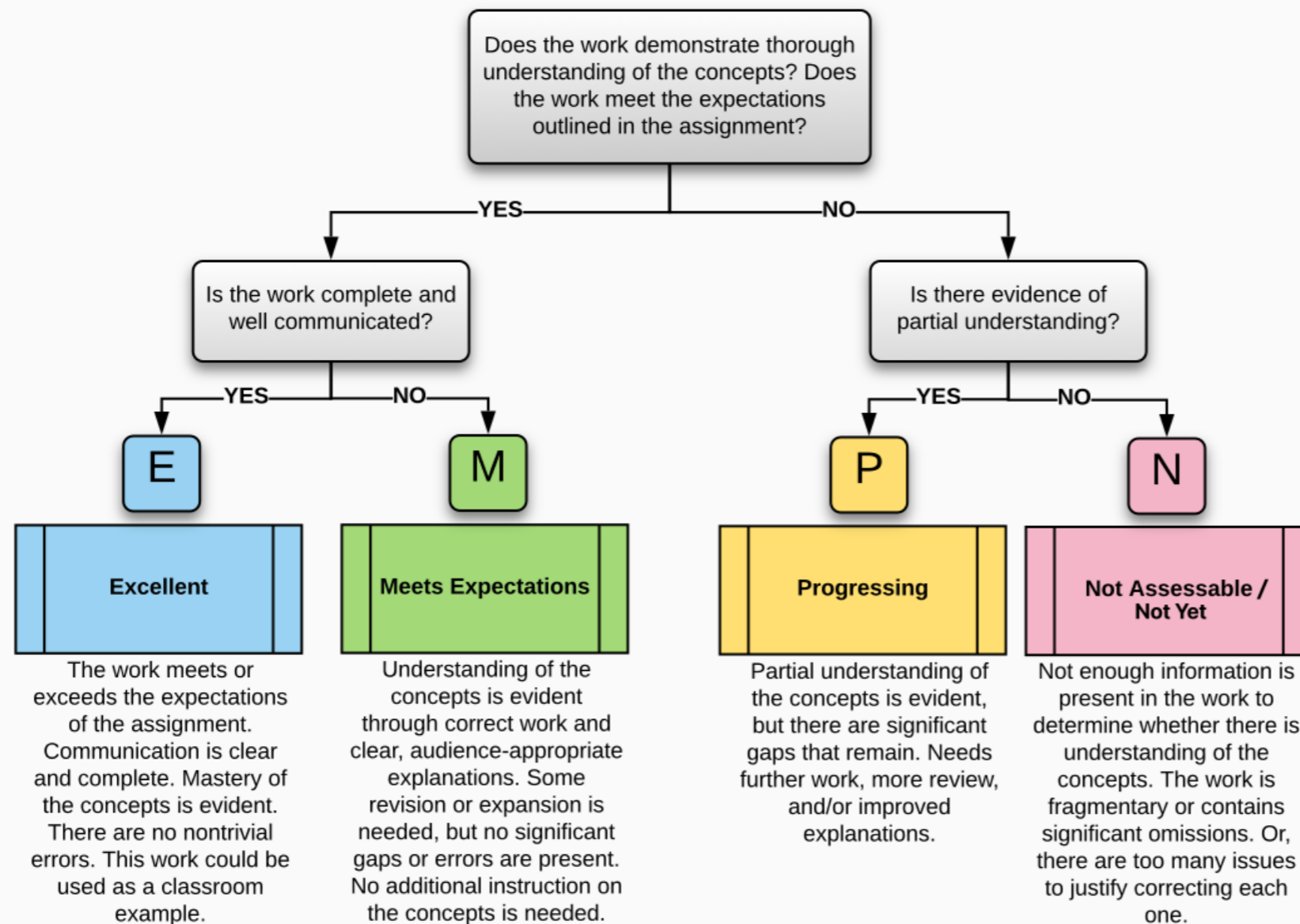
CIS 658  
WEB  
ARCHITECTURES  
Winter 2024

# ROOM AND CONTACT INFO

- **Room:** DCIH 120
- **Prerequisites:** CIS 500, CIS 511, CIS 512, ability to program “fluently”
- **Office Hours:**
  - 2:30 pm – 4 pm Monday and Wednesday (DCIH 530G)
  - By appointment Tuesday and Thursday (MAK C-2-316)
  - If my office door is open, you are welcome to come in and ask questions
    - (email before making a special trip to Allendale)
- **Email:** [kurmasz@gvsu.edu](mailto:kurmasz@gvsu.edu)
- **Web Page:** [kurmasgvsu.github.io](http://kurmasgvsu.github.io)
- **Blackboard:** Blackboard sucks. Use the course web page (above) and Piazza.

# GRADING

- **Homework/Quizzes:** “EMPN” metric
  - Revise homework until it meets expectations





# GRADING

- **Midterm Exam:** Scored as a percentage
- **Semester Project:** Scored with a letter grade
- **Late Days:** Accumulate over all assignments
- **Final Grade:** Specifications (i.e, “table”) based.

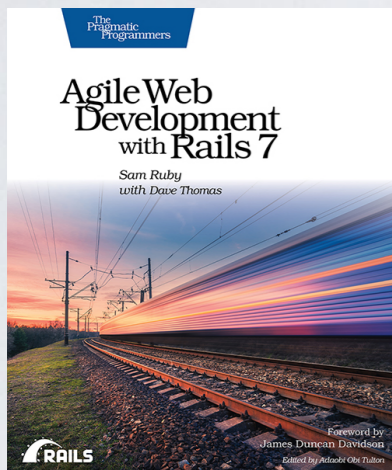
Not an average

- See table on the syllabus

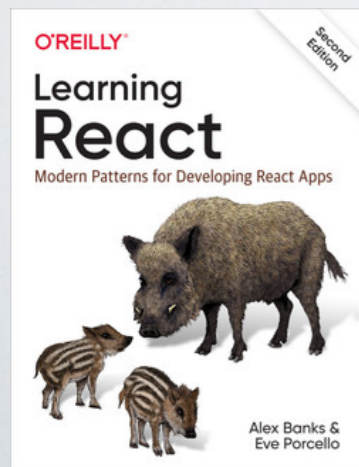
# COURSE TEXTS



- Client-Side Web Development by Joel Ross and Mike Freeman
  - <https://info340.github.io/>



- Agile Web Development with Rails 7 by Ruby, and Thomas.
  - Available online free through GVSU library



- Learning React, 2nd Edition by Banks and Porcello
  - Available online free through GVSU library



# CATALOG DESCRIPTION

- Current and emerging web-based technologies, protocols, system architectures, development frameworks, and languages.

# GOALS

- An in-depth understanding of the HTTP protocol.
- Construct web pages with HTML 5 and CSS 3.
- Discuss how dynamic content is delivered by web servers.

# GOALS

- Illustrate how a web browser requests resources from a server and interprets the results.
- Create dynamic web pages using Javascript.
- Understand the mechanisms behind responsive web apps.
- Compare / evaluate web application frameworks.
- Create a full three-tier web application.



# WHY SHOULD I TAKE THIS COURSE?

- You can watch YouTube to learn the “magic words”; but,
  - When the magic words don’t work, your only recourse is to go back to YouTube for different “magic words”
  - You technically don’t need to know how a car engine works in order to drive, it isn’t a bad idea to learn the basics.
  - A little bit of knowledge can help you diagnose and solve a lot of problems.
- I found it much easier to memorize physics formulas when I understood how they were derived.
  - Likewise, I found it much easier to learn frameworks when I understood how they were implemented.
  - The implementation details provide a mental model into which I can fit the framework, which makes it feel less arbitrary.

# THE “SWEET SPOT”

- Not enough time to become an expert but:
- Help you learn new web development frameworks faster.
- Help you to make better use of web dev frameworks, more scalable web apps, etc..
- Help you make better choices with regard to framework selection.
  - When your only tool is a hammer, everything begins to look like a nail.
  - I want to make sure you have more than a hammer.

# ACADEMIC HONESTY

- You are expected to read, understand, and follow the department's Academic Honesty Policy which can be found at <http://www.cis.gvsu.edu/academic-honesty/>



# DISABILITY SUPPORT

- If there is any student in this class who has special needs because of a learning, physical or other disability, please contact me and Disability Support Services (DSS) at 616.331.2490. Furthermore, if you have a disability and think you will need assistance evacuating this classroom and/or building in an emergency situation, please make me aware so I can develop a plan to assist you.

# COURSE PROJECT

- Start thinking about the course project now.
- Needs to be more innovative than a couple of "CRUD" pages.
- Needs to be more innovative than simply taking an existing idea and applying it to a different domain.
  - I don't want to see "Twitter for ...", "Instagram for ...", etc.
- Feel free to discuss your ideas in office hours.
  - Don't just write off an idea if you don't see how to make it fit the rubric.



# GOOGLE CLOUD

- It can be difficult to configure Ruby and Rails on Windows
- Several options
  - Use the Linux subsystem (WSL)
  - Use a separate Linux box
  - Use a linux VM in the cloud
  - Google Cloud
    - (I have codes for student credits)
    - Be sure to suspend VM when not in use.



# ORIGINS OF THE WEB

- Read the two articles linked on the timeline and be prepared to discuss next week.
  - Plan for a quiz
  - Quiz may be canceled if discussion is lively.