Welcome to CSC309!

Programming on the Web

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today

- course outline (bird's-eye view)
  - survey 1
  - what this course is about
- logistics
  - course organization, information sheet
  - project, assignments, grading scheme, *etc.*
- introduction to
  - web application design

survey 1

- in survey 1, you provide us with:
  - your UTorID,
  - your GitHub username, and
  - your familiarity with technologies related to this course
- before completing the survey
  - make sure you have a GitHub username,
    - *if you don't, sign up here: https://github.com/join*
  - *and, get a student developer pack here: https://education.github.com/pack*
- if you have the GitHub username and UTorID
  - complete the survey here: *https://goo.gl/forms/1sovPcFA1dLEo1k42* **(deadline: Jan 09)**

what is this course about?

- developing a ***fully-fledged*** web application
  - from *definition* to *implementation* to *demonstration*

jan 20 …feb … march… march 31

what is this course about?

- developing a ***fully-fledged*** web application
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APRIL 05

what is this course about?

- in this journey, you work
  - in team of 4 members on the **project** **35%**
  - individually on **2 assignments** **20%**
  - individually on **10 quizzes** **15%**
  - individually on **final exam** **30%**
- to learn about
  - **web development process**
    - from frontend to backend (**full stack**)
- via tools/technologies, such as
    - html, css, javascript, jquery, node, json, rest, etc.

what would you need to do well?

- official prerequisite: CSC209
  - technically, good programming skills
- database knowledge and skills
  - make sure at least one member in your team has the database expertise
- **passion, passion, passion**
  - pick a project that you think is really cool
  - be ready to solve problems, individually
  - be ready to learn details, individually
  - perform a great team working and time management

what would you need to do well?

- pay attention to concepts (in lectures)
- practice the concepts and skills (in labs)
- master your skills by assignments
- put all your learning together in the project
- start early the assignments and project phases
- lectures and labs are limited
  - but for your deep learning, sky's is the limit
- final exam: deep concepts

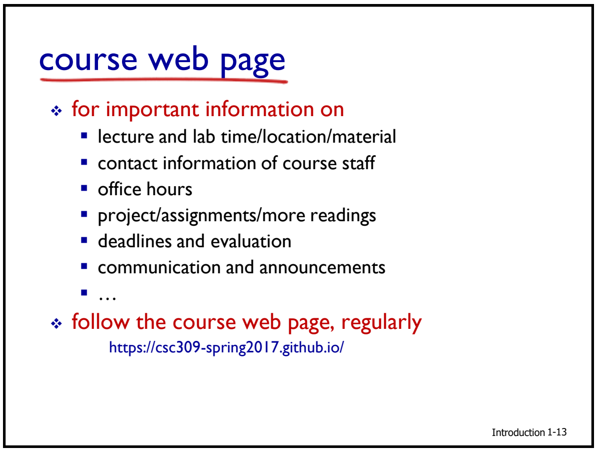
is this course for you?

is this course for you?

- have you developed a web application?
- interested in
  - developing a mobile app?
  - learning specific technologies?
    - e.g., php? jsp? .net?
  - learning advanced web development?
    - with comprehensive security?
    - or high performance and scalability?
- ?

is this course for you?

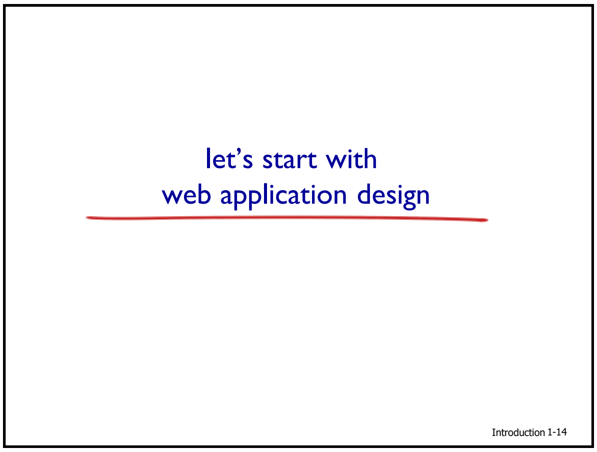
- this is a **basic** web development course
- assuming **no prior web development skills**
- to develop a ***fully-fledged*** web application
  - from *definition* to *implementation* to *demonstration*



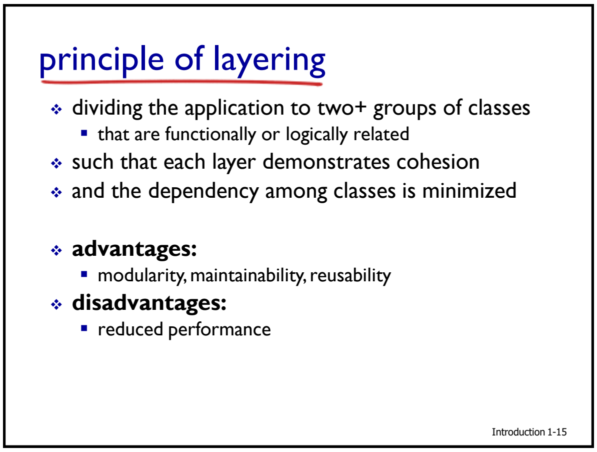
course web page

- for important information on
  - lecture and lab time/location/material
  - contact information of course staff
  - office hours
  - project/assignments/more readings
  - deadlines and evaluation
  - communication and announcements
  - …
- follow the course web page, regularly

  https://csc309-spring2017.github.io/



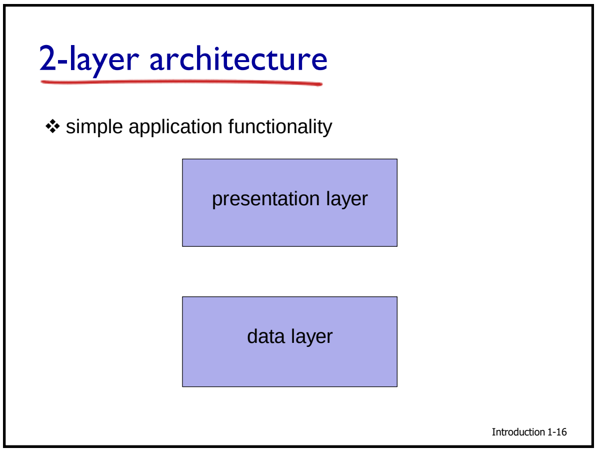
let’s start with web application design



principle of layering

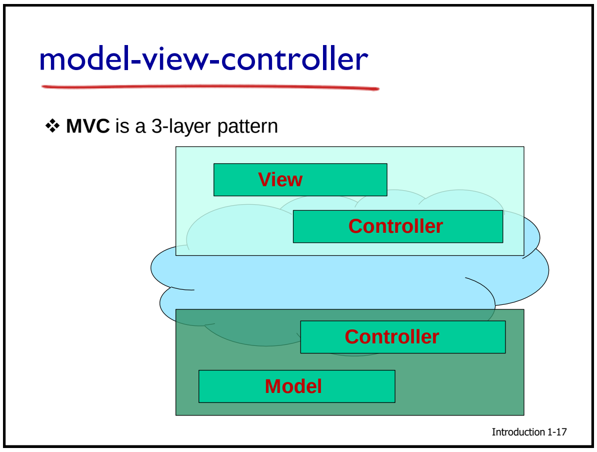
- dividing the application to two+ groups of classes
  - that are functionally or logically related
- such that each layer demonstrates cohesion
- and the dependency among classes is minimized

- **advantages:**
  - modularity, maintainability, reusability
- **disadvantages:**
  - reduced performance



2-layer architecture

- simple application functionality



model-view-controller

- **MVC** is a 3-layer pattern

notes