Web System Development by Ruby on Rails

Day 1(20/Sept/2012)
Guidance

Installation of Ruby, Gems, Rails, and Aptana

Web System and DB

- WEB – Nest of Spider?
  - Nobody uses and spider has made nest on DB?

- World Wide Web – Internet Connection
- Application Systems
  - access via browsers,
  - to servers on Internet,
  - to the data in DataBase

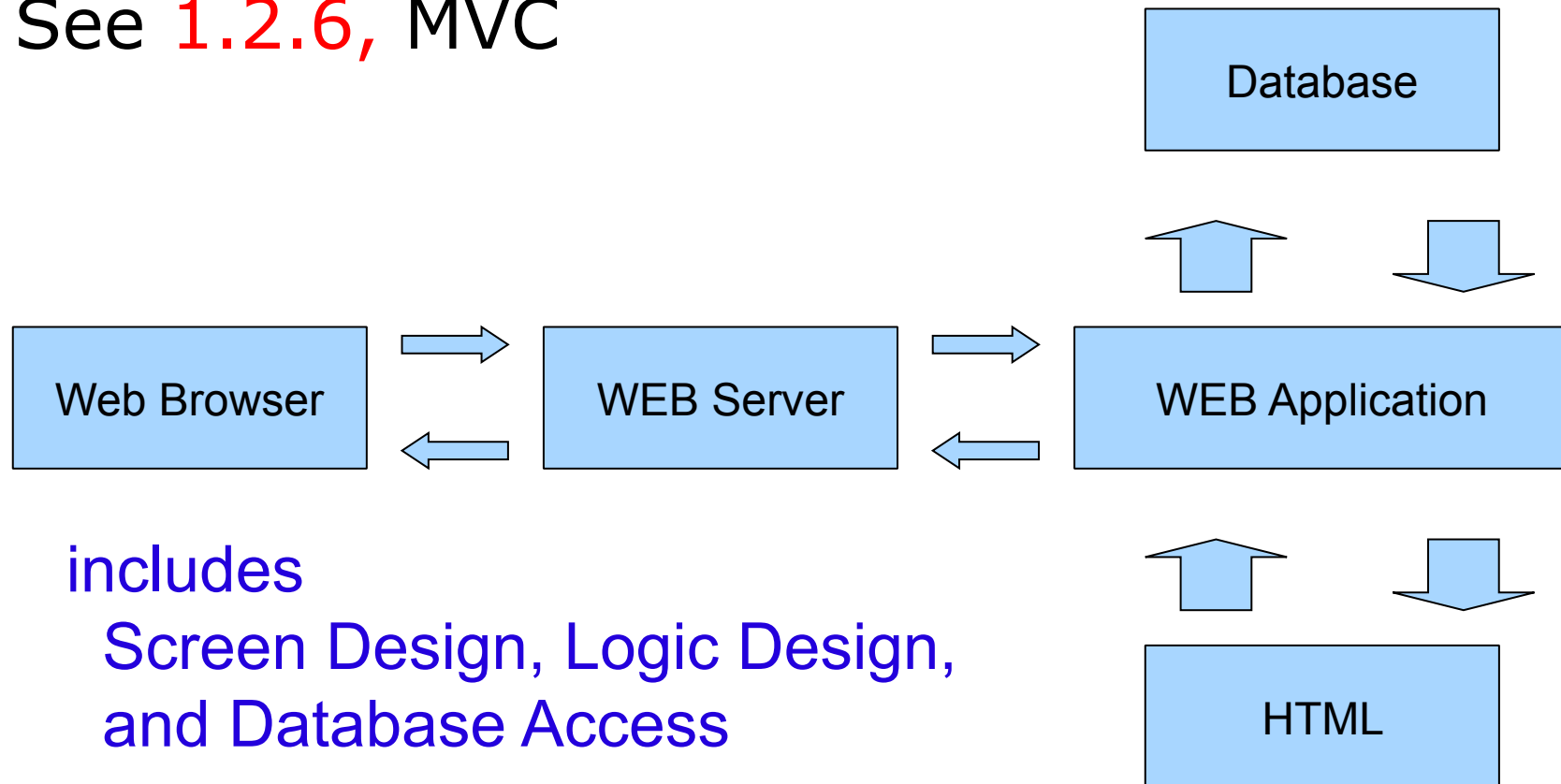- Learn how to Build, (not how to Use)

Rails 3 tutorial

Visit the following site:

http://ruby.railstutorial.org/ruby-on-rails-tutorial-book

The above book can be read all on the WEB.

What is Web Application

See 1.2.6, MVC

Database

Web Browser → WEB Server → WEB Application

HTML

includes
Screen Design, Logic Design, and Database Access

… Everything!

Lecture Policy (of First Semester)

- Read and understand Sample Applications
  - rather than write original programs

- trace the instructions then run the codes, to know how to realize many functions by ruby.

- When you understand the key concepts, then modify the samples to see what happens by changing settings.

Lecture Plan (1/4)

- Day 1: What is Web Application? (today)
  - Setting up the Environment.
- Day 2: Integrated Development Environment(IDE), Scaffolding
- Day 3: Learn MVC Model

  MVC: Model, View, and Controller
- Day 4: HTML; Hyper Text Markup Language

  Learn basic description of WEB pages

Lecture Plan (2/4)

- Day 5: Style Sheets

  Learn Cascading Style Sheet(CSS) file

- Day 6: Database Language SQL

  Learn what is Database

- Day 7: Relational DB and SQL

  Learn database design concepts

- Day 8: Ruby Language

  Japanese-born WEB Environment Ruby
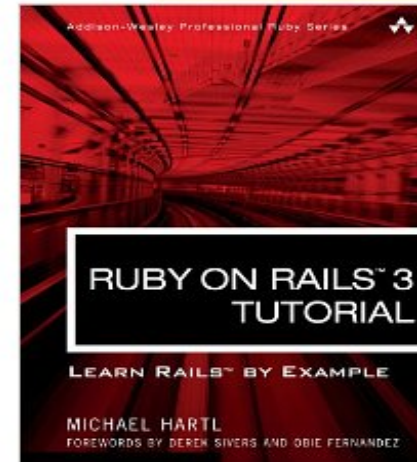
Lecure Plan (3/4)

- Day 9: Grammar of ruby

  rush to overlook the grammar of ruby

- Day 10: Screen Design and Screen Link

  How to write links of screen in rails

- Day 11: File Uploads and image display

  Store binary image files into database, and display the image

- Day 12: Session Control

  Keep the information all through the session.

Lecture Plan (4/4)

- Day 13: Login Screen
  for security reason, limit access of users
- Day 14: Summary of First Semester

- There are so many things...
  - Basic lecture plans was 'reset everyday'
  - But we will pile up the knowledge on the former designs.
    - So if you would be absent one day, please read and try what would have been done on the day.

Textbook

- Hartl, Michael (2011): Ruby on rails 3 tutorial.
- Boston: Pearson Education
- (USD39.99)
- ISBN-13: 978-0-321-74312-1

Do I have to buy textbook?

- There are some textbooks in the library.
- Please guess the reason why teachers specify textbooks.
  - Please read what we cannot explain in the lecture period from the textbooks.
  - Some sample programs are obliged to the copyright law, so, I recommend you to buy if textbooks for legal reasons.
  - Somehow, you can use the textbooks in the University library.
- But, thanks to the author, you can read the textbook on the WEB.

Scoring

- Regular exams are not performed.
- Scoring is based on the report scores.
- Scoring Criteria
  - S Rating : excellent in original ideas, designs, and/or the descriptions of the software behaviors.
  - A rating : All the requirements of report aims have been covered.
  - B rating : Some of the report aims have been covered, and minimal trials have been done.
  - C rating : Only software and its screen have been reported.

Reports

- Reports are requested in the Day 2, Day 4, Day 6, Day 8, Day 10, and the Day 13.
- Total 6 reports are imposed, in the original plan.
  - But the reports plan might be changed because of the lecture progress.

- Also, if you were absent from the lecture, please submit 'Absence Report' for the day. If you submit 'Absence Report', then the attendance is recorded for the day.

Attendance

- You are supposed to attend more than 66 percent of the lectures. (10 days)
- If you are absent from the lectures more than 4 days, your record will be automatically scored as 'E'. (Failure because of absence)

Name of the report files

- Please name the report files as
  - Wnn-XXXXXXX.ZZZ
  - Where, Wnn is the number of the day,
  - XXXXXXX is your registration number,
  - And the ZZZ is the file extention

  - ex. W01-08K1234.docx
- The documents format are ;
  - OpenOffice.org Write document (odt) or Microsoft Word document (doc, or docx)

How to submit report

- Access to Hosei University Lecture support system. (授業支援システム）
- Please try to access from Hosei Portal site.

Please use templates

- Please use the file templates
  - For me to read and score report effectively
- Please name files correct
  - To identify the author of the report correct
- Please attach the screen shots when necessary
  - For you to prove that you actually try the program by yourself.

  - Do you know how to copy the screen?

Excellent Reports are posted

- For privacy causes, the author's name and the id number will be erased, but for other students to study and know good practices, excellent reports will be posted in the web page.

Exposure of the study record

- If you want to reveal your own study record, you can declare your own 'handle name' to the teacher to reveal your study record.

- You can change your handle names anytime, and choose reveal or hide your record any time.

※:PCセットアップの問題	第 1 回					
	9月24日					
HN	出席	遅刻	実課	週遅	備考	評価
AKB45	1		4	−1		A
AS	1		4	−1		A
Atogatag	1		4	0		A
CapitaO	1		4	0		A
E8BOlhmH	1		4	−1		A
fregata	1		4	−1		A
gzscUTVf	1		4	0		B
HERMIT	1		4	0		S
IQ84	1		4	−1		A
j. j. thomson	1		4	−1		B
KAMO	1		4	0		A
koko	1		4	−1		B
Kurt	1		4	−1		A
IA0wdm3h	1		4	−1		B
LEON	1		4	−1		S
mizore	1		4	0		A
N2V7JzZQ	1		4	−1		A
P−MODEL	1		4	−1		C
SARASACLIP	1		4	−1	1	A
SH906i	1		4	−1		A

Do I need to bring my PC?

- Yes, Absolutely.
- This is a practicing subject.

- Also you are strongly recommended to bring USB memory to record your course materials and your own reports and software. (In case your PC crashes.)

Today's Exercise

- Run VMware to run LINUX on your Windows PC.

- Preinstalled Virtual Machine for VMware is provided. The machine is installed with Ruby/Rails/Gems/Git/Aptana.

- Download from RAT team support site, and install for your VMware.

  - Please keep your original LINUX environment, and install the Machine as a different virtual machine.

Give low priority to Theories!?

- Try first!
  - Just experience the followings:
    - By doing like this, then get the result like this!
    - Writing programs like this, the the screen has become like this!
  - By doing the above practice repeatedly, please make concrete image of Ruby on Rails, and if you feel;
    - Well then, if I want the software to work like this, I should write the program like this;
  - you come to the goal of this lecture.

What we do next?

- We learn to use the IDE (Aptana) to develop the sample WEB site. Run the rails server, and see your original WEB site.

- We learn scaffolding of some WEB program.