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# OBJECT ORIENTED WEB PROGRAMMING USING RUBY

Day 2: 19/April/2012  
Installing Aptana – IDE;  
Integrated Development Environment  
And Rails

# What we learn today

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- Setting Up Aptana – IDE
  - IDE; Integrated Development Environment
  - Set Up Japanese Language Support
  - Run rails command on Cygwin, and then edit files on Aptana
- Report your Development Environment status, regardless you have succeeded the installation or not.

# Confirming Versions on Cygwin

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- Type each command with the option switch; `--version` ( or `-v` )
- Commands will respond with version numbers.

- Rails --- 3.2.2 (3.2.3)
- Gem --- 1.8.21
- Rvm --- 1.11.3
- Git --- 1.7.9
- Rake --- 0.9.2.2
- Ruby --- 1.9.2p318

# If you have failed to set up cygwin

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- ❑ Do your computers reject the network connection at firewalls?
- ❑ When messenger application or skype is running, the necessary ports are occupied by the programs. Is it?
- ❑ Did you start installation with the admin privileges?
  - And there may be many causes of failures.

# Trouble Shooting

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- If you face with the message 'C compiler not found,' then try “mingw” installation.
  
- And the last resort :
  - <http://rubyforge.org/projects/rubyinstaller/>
  - Install ruby by “ruby installer 1.9.2 for windows”
  - Then, add the path of binary to System PATH

# Investigating the Failed Installation

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- ❑ Currently, the following combinations are NOT checked yet.
- ❑ vs Development Environment for Android
- ❑ Android Cell phone Application Development Environment uses Cygwin, too
  - The setting for these may cause the competition.
- ❑ Installed "Msysgit" might "eat" the command for cygwin.

# Environment for this course

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- Rails commands are executable on bash of cygwin or on bash of git.
- We can edit source codes which are generated by rails on Aptana Environment.
- There are many blogs which report that the co-operation between Aptana and Rails are terrible since Rails 3.
  - So, we use only effective parts of those two environment.

# Today's goal(1/2)

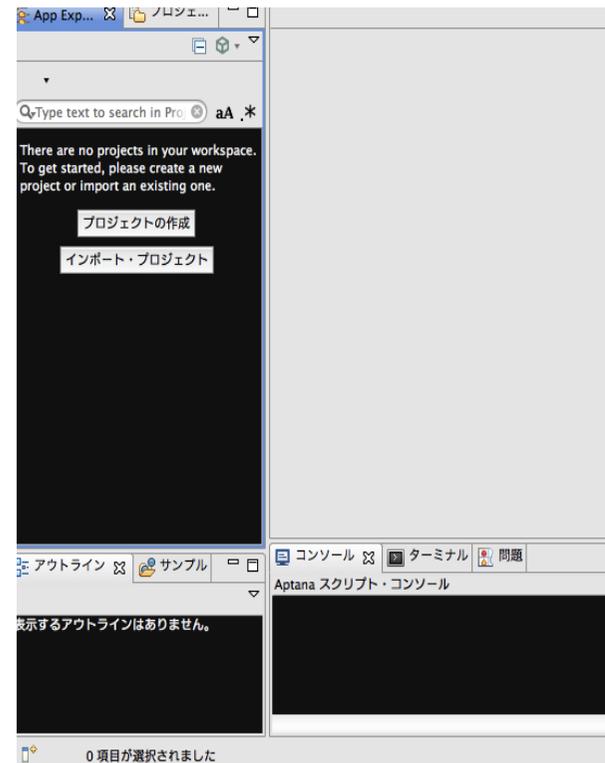
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- By typing rails command:  
rails new sample
- "sample" Project is generated.

```
create
create README
create Rakefile
create config.ru
create .gitignore
create Gemfile
create app
create app/controllers/application_controller.rb
create app/helpers/application_helper.rb
create app/mailers
create app/models
create app/views/layouts/application.html.erb
create config
create config/routes.rb
create config/application.rb
create config/environment.rb
create config/environments
create config/environments/development.rb
create config/environments/production.rb
create config/environments/test.rb
create config/initializers
create config/initializers/backtrace_silencers.rb
```

# Today's Goal(2/2)

- Aptana Start up screen shows Japanese Language



# Exercise Theme of Today.

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- Make sure that rails run on cygwin
- Complete Aptana Setup according to the attached materials ( on the study site. )
- Report the result regardless you have succeeded the installation.

# Today's report themes (1/2)

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- ❑ If you have succeeded the installation, report the screen shots of the result screens, covering your wallpapers.
- ❑ If you have failed the installation, report the error messages and the system logs which are indicated in the messages.
- ❑ In both cases, answer the inquiries shown in the next page.

# Today's report themes (2/2)

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- Attach the screen shots responding to the command "echo \$PATH" on Cygwin

```
kobayashi-ikuo-no-MacBook:~ kobayashi$ echo $PATH
/opt/local/bin:/opt/local/sbin:/usr/bin:/bin:/usr/sbin:/sbin:/usr/local/bin:/usr
/X11/bin:/Applications/Android/android-sdk-mac_x86/tools:/Applications/Android/a
ndroid-ndk-r5c:/Users/kobayashi/.rvm/bin
kobayashi-ikuo-no-MacBook:~ kobayashi$ █
```

- Give Yes/No Answers to the followings;
  - Is your PC installed with Msysgit?
  - Does your PC have the Development Environment for Android?
  - Does your PC run skype and/or some other messaging application in the back ground?
  - Does your personal firewall block the network connection?
  - Have you installed some environment with "mingw" for some other practice courses?

# Next best Installation method

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- After today's lecture, the installation status for all students will be investigated.
- The result may be good or bad.
  - We will try the next best installation method by the next time, so that all students can learn Ruby on Rails in this lecture.

# Settings of workspace

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- What is workspace?
  - We can switch the configuration of running Aptana, depending on the projects requirements.
    - By switching the Workspace, we only need one installation of Aptana.
  - We can change the setups for workspaces, and switch the workspace for each project.

# Workspace for Rails

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- We learn “Ruby on Rails”.
- If you want to use other languages, ex. PHP and/or Python, you can setup other workspaces for them on only one installation of Aptana.
  - You can share the Rails environment between rails projects, by creating new “project.”
  - But if your projects relies on different server environment (such as XAMPP) each other, it will be better to split the installation.

# Support Japanese Language

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- Aptana and many other famous freeware applications are developed on English Language bases.
- Japanese Language is supported with “plugin,” “add-on,” and such tools attached outside of the application.
- For Aptana, here we use <http://mergedoc.sourceforge.jp/>
- To install Pleiades; the Japanese Language plug-ins. ( See other materials )

# Copy plugins/features

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- ❑ Plugins and features are attached modules to upgrade Aptana (and Eclipse.)
- ❑ Like `jp.sourceforge.mergedoc.pleiades`, the reverse traced URL names are given to the packages for uniqueness.
  - If some new add-ons are developed in Hosei University,
    - ❑ The name; `jp.ac.hosei.cis` will be given.

When you finished copying, modify the initialization file of "AptanaStudio3.ini," by adding the following line;

```
-javaagent:plugins/jp.sourceforge.mergedoc.pleiades/pleiades.jar
```

# How to generate Project

- By typing rails new sample
- In the shell console.
- Project files are generated.

```
C:\Windows\system32\cmd.exe
C:\InstantRails\rails_apps>rails memopad
create
create app/controllers
create app/helpers
create app/models
create app/views/layouts
create config/environments
create components
create db
```

```
create public/favicon.ico
create public/robots.txt
create public/images/rails.png
create public/javascripts/prototype.js
create public/javascripts/effects.js
create public/javascripts/dragdrop.js
create public/javascripts/controls.js
create public/javascripts/application.js
create doc/README_FOR_APP
create log/server.log
create log/production.log
create log/development.log
create log/test.log
```

```
C:\InstantRails\rails_apps>
```

# change current directory, and start Server

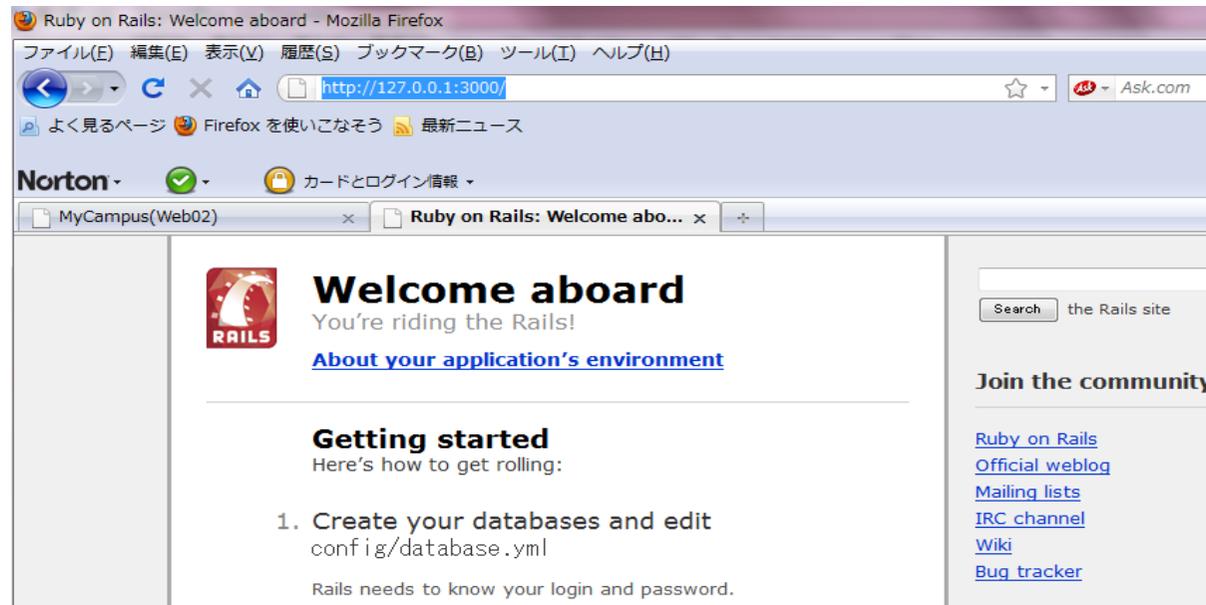
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```
kobayashi-1kuo-no-MacBook:sample kobayashi$ rails server
=> Booting WEBrick
=> Rails 3.0.8 application starting in development on http://0.0.0.0:3000
=> Call with -d to detach
=> Ctrl-C to shutdown server
[2012-04-19 03:42:01] INFO WEBrick 1.3.1
[2012-04-19 03:42:01] INFO ruby 1.8.7 (2011-02-18) [i686-darwin10]
[2012-04-19 03:42:02] INFO WEBrick::HTTPServer#start: pid=1703 port=3000
```

- Type
  - cd sample
- In the console.
  - Here, “cd” stands for Change Directory.
- Then, type
  - rails server
- Web Server is invoked.
- You can stop the server by typing ctrl-C.

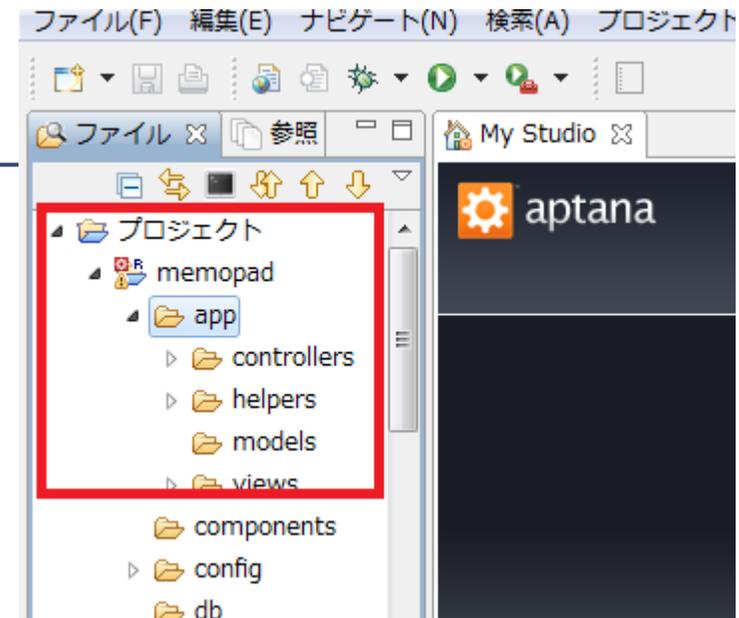
# Confirm the server invoke

- Start the browser, and give the URL
  - <http://127.0.0.1:3000/>
- Then, check to see the WEB screen shown below.



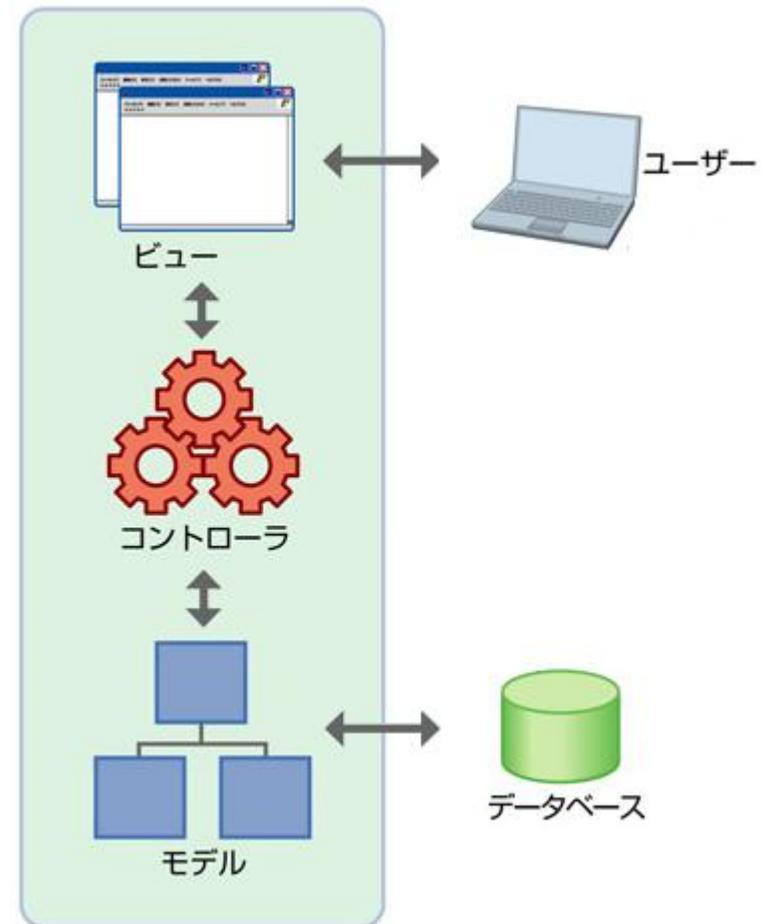
# MVC

- You can import the project into Aptana, and open the app(lication) folder, you will find the following four folders
  - controllers
  - helpers
  - models
  - views
- Model/View/Controller are very important consisting elements in developing program.



# Model View Controller

- Model describes the data structure.
- We design the screen layouts and the operation with View element.
- Controller describes the flow of data with commands.
- We split these components in MVC development Model.
- We see much in deep on the Day 4.



<http://kameleon.s241.xrea.com/wiki/index.php?MVC%E3%83%95%E3%83%AC%E3%83%BC%E3%83%A0%E3%83%AF%E3%83%BC%E3%82%AF>

# Today's report theme

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- Attach the Aptana screen that supports Japanese language.
- Generate project files with rails, and report the result.
- For both themes, answer the related inquiries listed above.
- If you finished confirming server starts, add the screen (→)



# Report Evaluation

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- If you report the result properly (even if you failed the installation,) your report will be given the "B" evaluation.
  - Improper reports may be "C" evaluation.
- Even if you have failed the installation, if you analyzed the error messages and give the explanation of the situation, your report evaluation will be "A" or the better.
- If server start screen is included in the "success" report, the evaluation will be "A"
- Detailed analysis is given, the report will be given "S."

# Absence Report

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- Those who are absent from today lecture, submit the report of the following screens;
  - Aptana Screen which support Japanese Language.
  - The Version number response of each command on cygwin shell window,
  
- Include your desktop wallpaper in the screen shot.

# Next week

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- We setup and starts database
  - Migrate and set the database schema
  - Try rails and sqlite3 co-operation, and trace the description of ruby's database access.
  - Generate the source codes, table structure descriptions, and the skeletons for VIEW screens, automatically by only one console command of rails.
- Import the automatically generated files into Aptana, and read the codes on Aptana.