

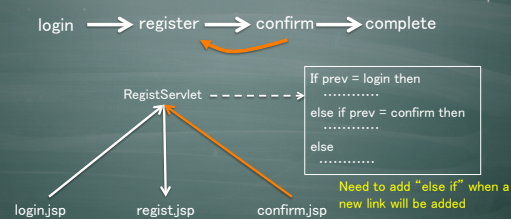
Advanced Exercise on Computer and Information Science B

Architecture – MVC

Registration management system

- Servlet + JSP
 - Servlet – for business logic
 - JSP – View(Screen)
- Is it enough to develop complicated applications?
 - Problem with adding/modifying links
 - Problem with changing specification
 - Unstandardized implementation
 - Leading huge problems in large-scaled applications

Problem with adding/modifying links



Problem with changing specification

- Add session management
 - Add pieces of code to follow the management in each logic
 - Create a method and invoke it
 - Depends on each developer
- Add a new screen
 - Create everything from the scratch
 - E.g., logic, screen...

Unstandardized implementation

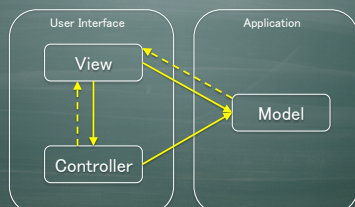
- Implementation of each screen depends on each programmer
 - Difficult to manage/maintain
 - Need to understand how a certain programmer try to implement
 - Quality depends on each programmer
 - Expert or beginner
 - Convention is not always guaranteed
 - Unknown reference when some changes are required
 - Need to read entire code (in the worst case)

Software Architecture

- Architecture
 - Structure (e.x., Buildings)
- In software development
 - Make it easy to use abstraction and divide a problem
 - Use cooperation among objects
 - Ex. BCE(Boundary–Control–Entity)

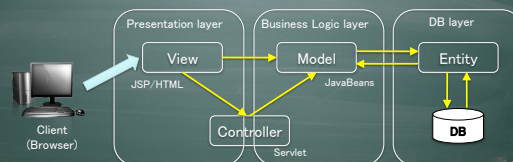
MVC Architecture

- Interactive application

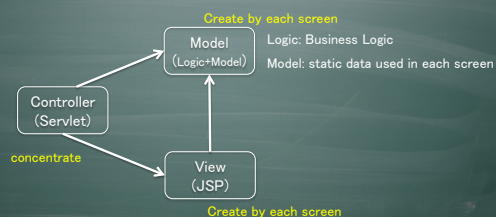


MVC2 (J2EE-MVC)

- Standard for Web application development

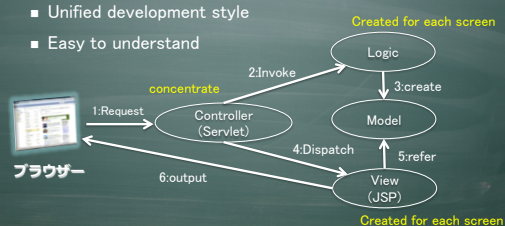


Apply MVC to the system

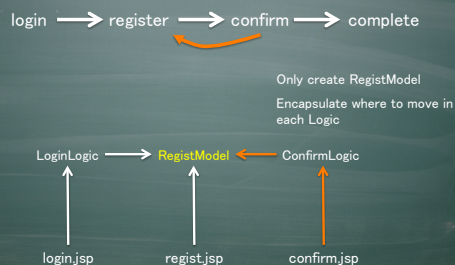


Control Flow

- Need to follow this flow
 - Unified development style
 - Easy to understand



Modify link structure



Solve the problems

- Problem with adding/modifying links
 - Modify link structures
- Problem with changing specification
 - Introduce MVC architecture
 - Clarify each role of module
- Unstandardized implementation
 - Unified development style by MVC architecture
 - Difference programming by OOP
 - Encapsulate difficult processes

