

Contract Management System

Create Project

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Development environment

Development tools are JDK 1.6 and MyEclipse 6.5, the plug-in of integrated development tool Eclipse 3.x.

Server uses Tomcat 6.x.

Browser uses Firefox.

Function

1. Create project

Create Java EE project named **contract** for Contract Management System.

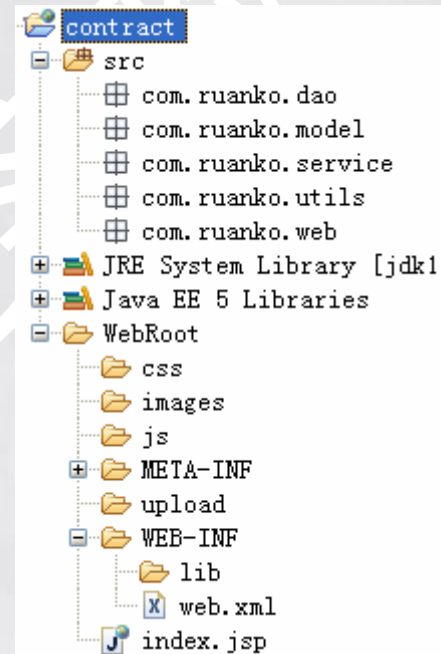
2. Establish program framework

(1) Create packages under **src**.

com.ruanko.utils,
com.ruanko.dao,
com.ruanko.model,
com.ruanko.service,
and com.ruanko.web.

(2) Create folders under WebRoot.

images, to store picture files;
js, to store script files;
css, to store style files;
and upload, to store files to be uploaded.



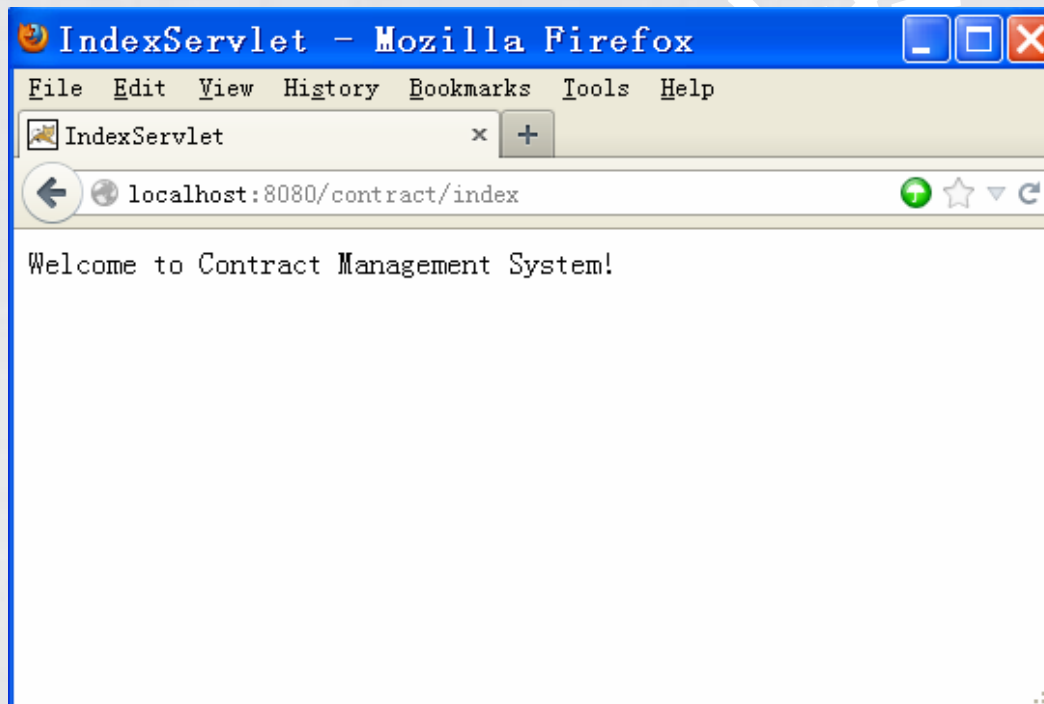
3. Create IndexServlet and display greeting message text in the output.

Greeting message is “Welcome to Contract Management System!”

4. Deploy and visit this web project.

After project is officially deployed, visit IndexServlet on Index.

The visiting path is <http://localhost:8080/contract/index>.



The software structure style is a kind of model which is commonly used in describing system organization method of a certain application field. Some classical styles are Pipeline Filter, Object Oriented Style, Implicit Calling, Warehouse Style, C/S, B/S, Hierarchical Style, Isomerism, MVC model, etc.

Design project frame by integrating B/S model into 3L layers, in conjunction with the idea of MVC model.

It's a Java EE application with its directory structure satisfying Java EE standard. Some common Java EE components are JSP, Servlet, JavaBean, etc.

In this project, we use JSP+Servlet and JDBC in the development.

MyEclipse is used to create the Java EE project of contract, the package structure and resource folder as well.

Create IndexServlet in the project, deploy project and visit Servlet to check the result of creation.

1. System structure

(1) 3L structure

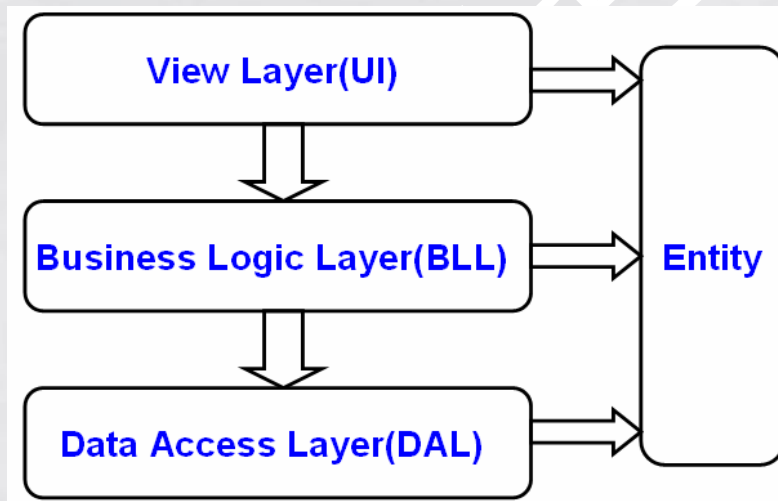
The 3L structure is very common in hierarchical style. It's logical hierarchy.

View Layer(UI) is responsible for data display and inputting. It calls BLL.

Business Logic Layer(BLL) processes requests from UI layer according to pre-designed business logic and calls DAL.

Data Access Layer(DAL) interacts with data source, i.e. database or other files, to fulfill resource accessing.

Entity objects are used in the transmission between three layers.



(2) MVC model

MVC means Model View Controller. It divides application composition into three kinds of components, namely Model, View and Controller.

1) **Model** contains the core functionality of the application. It represents business data or logical data.

2) **View** is the appearance of the program that users see and interact with the interface.

3) **Controller**: according to user input, it controls the user interface data display and updates the state of the model object.

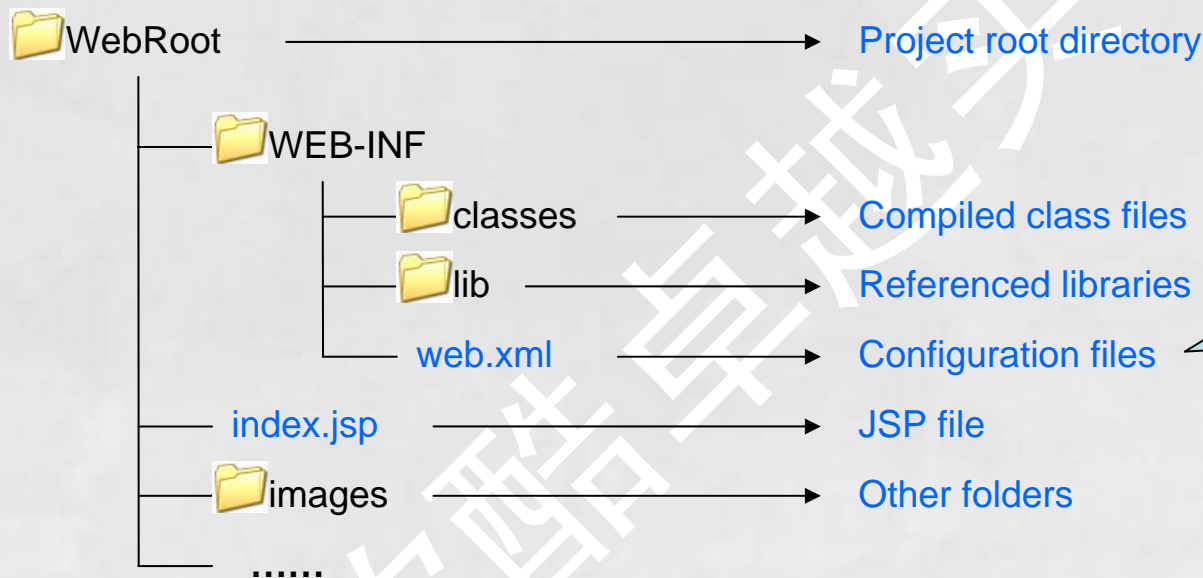
Three kinds of components functionality is relatively independent. This structure is advantageous in reuse, clear responsibility and facilitate cooperative development.

2. Java EE project directory

(1) WebRoot is the root directory.

(2) WEB-INF keeps compiled class files, referenced libraries and configuration files.

(3) Other resource folders save picture, style or sources for uploading.



Or get it from other projects under folder webapps in Tomcat.

The directory satisfies Java EE standard.

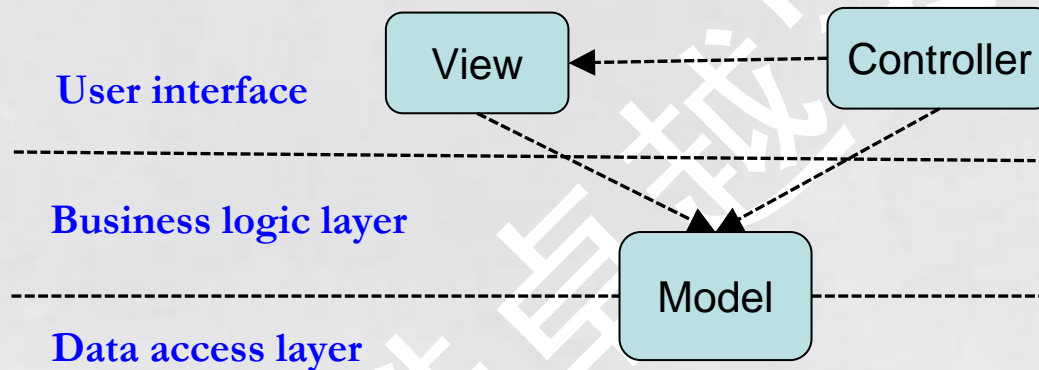
3. Program framework

(1) General framework

3L structure in combination with the idea of MVC model.

View&Controller, view and controller constitute View layer.

Model is composed of business logic, data access, entity module class, etc.



(2) Project structure

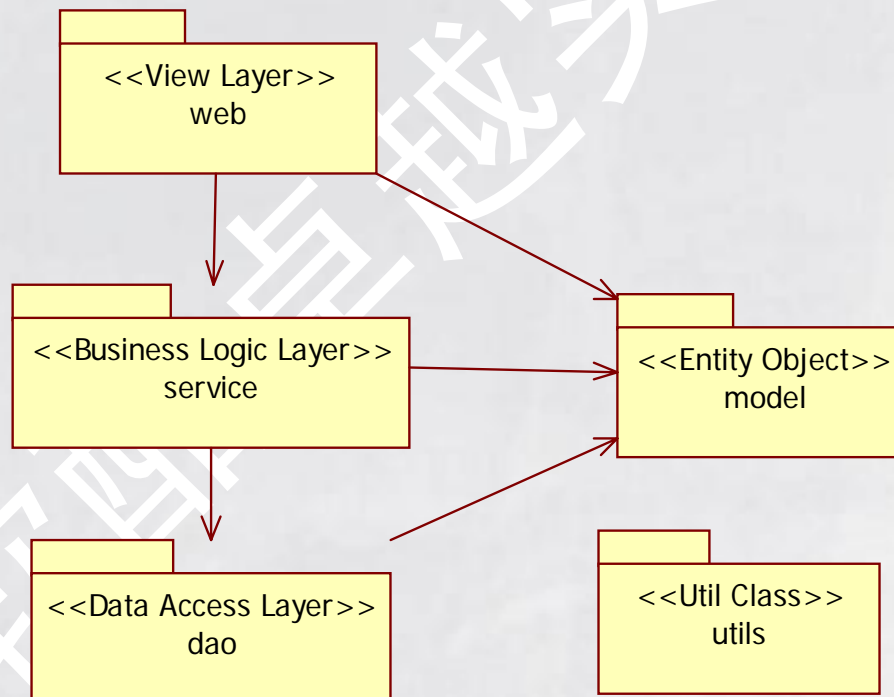
It's a Java EE program, a 3L structure in conjunction with MVC model. Please see the following diagram for structure.

View Layer contains Servlet and JSP page, the web package.

Business Logic Layer defines business logic, the service package.

Data Access Layer processes database interactions, the dao package.

Entity Object transmits data between layers, the model package.



Implementation

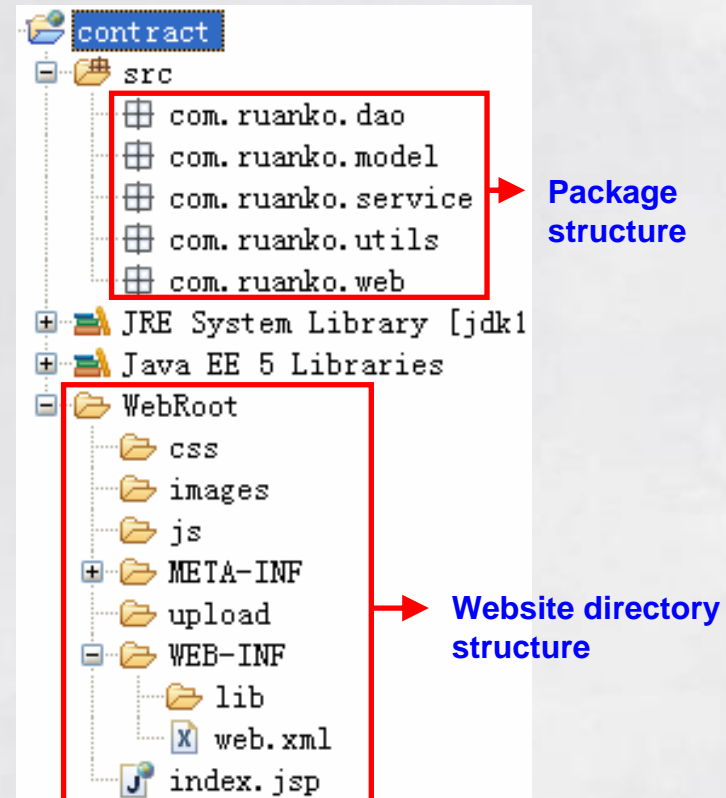
Firstly, create the Java EE project of contract in MyEclipse. Create packages and resource folder for the project by adopting 3L structure combining with MVC model.

Secondly, create IndexServlet in the project. Deploy project and visit Servlet to check the result of project creation.

Step 1, create project.

Step 2, create Servlet.

Step 3, deploy and visit project.



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Thanks

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