

1. Individual Contribution

In order to satisfy the characteristics of Distributed Online Bookshop, it is necessary to allocate all the services to different computers to act as servers. I am responsible for implementing the *User Service*, *User Verify Service* and a part of *Database Service*. In addition, deploying the *User Service*, *User Verify Service*, *Transaction Service* and *Cart Service* on my computer and help write Report are what I should do.

User Service: A *RESTful Service*. Get a *request* from Client to decide to execute *Registration* (*doPost()*) or *Login* (*doGet()*). Call *Database Service* to *Registration* or Call *User Verify Service* and *Database Service* to *Login* and return *JSON* to Client.

User Verify Service: A *SOAP Service*. Be called when a *request* is sent to *Cart Service*, *Transaction Service* and *User Service* to verify the authenticity and return a *Boolean*.

UserDaoImpl: According to the request methods from other services, call the different methods to use SQL statements to *Select* or *Insert* data and return a *Boolean*.

2. Cooperation Process and Teamwork Promotion

◆ Since the previous experience of developing Digital Library and the convenience of collecting data, I recommend to select the Online Bookshop at the conference about the type of Distributed System, and the suggestion was accepted finally.

◆ According to the established Database Field, the received *request* from the Client and the required *response* by the other services, I must strictly abide by the rules to reduce the generation of errors.

◆ Because of the performance of Distributed System, I need to help my mates deploy the *User Service* and *User Verify Service*, so as to ensure the fluence of the Test.

◆ Moreover, I participated in writing Report and README by introducing my development experience and the distributed features I have implemented to my mates.

3. Individual Suggestion

◆ I think our Online Bookshop is not humanized enough. When performing services, there is a problem must be solved, the cart was maliciously changed or the account was cryptically paid by illegal users. It leads the more troublesome method of repeated verifying the authentication have to be used, because of the lack of Network Security knowledge. In the future improvement, we will learn from the open-source packages or tools for verifying the authentication to improve the user experience.

◆ I think our Online Bookshop is not an absolute distributed system, compared with an enterprise distributed system. It is commendable that a single service is deployed to at least two servers and the synchronized databases are deployed to two servers. However, the databases on two servers are integrated (a Full Replication Database), which is not a Partial Replication Database. For MySQL, it is difficult to deploy the sub-databases to different servers without much discussion. In the future improvement, the sub-databases will be allocated and deployed according to the function of the various services, so that the system will be the contemporary popular style.