

Academic Year 2015-2016 Semester I

420312 - Middleware Techniques and Platforms

Assignment 3

Requirement

Each team, consisting of three or four members, is required to explore and study one middleware technique/protocol/specification/framework/platform/system/product/service for data access, data processing, data analytics, data mining, data visualization or data management, excluding JDBC which has been addressed in the lectures. Candidate topics include (but are not limited to):

- ADO/ADO.NET
- Cayenne
- Hibernate
- iBATIS
- Java API for XML Processing (JAXP)
- Java Persistence API (JPA)
- jOOQ
- Language Integrated Query (LINQ)
- MyBatis
- nHydrate
- ODBC
- OLE DB
- pureQuery
- Spring
- TopLink
- WCF Data Services

- XML Processing in .NET Framework

The explorative study should cover the following aspects of the middleware:

1. The history
2. Major design objectives
3. Architecture, framework and components
4. Major functionalities and features
5. Application scenarios
6. Comparison with other related middleware
7. Major steps and issues involved in using the middleware

Presentation

Each team is required to present the explorative study within 15 minutes, including a QA session. The presentation can be delivered in either English (preferred) or Mandarin, while the presentation slides should be composed in English only. The presentation must cover all aspects listed above.

Presentation time slots and venues:

- A. Mon, 21 Dec 2015, 10:00-11:40, SSE430 (6 teams)
- B. Tue, 22 Dec 2015, 10:00-11:40, SSE516 (6 teams)
- C. Thu, 24 Dec 2015, 10:00-11:40, SSE516 (6 teams)
- D. Mon, 28 Dec 2015, 10:00-11:40, SSE430 (6 teams)
- E. Wed, 30 Dec 2015, 13:30-15:05, SSE430 (6 teams)
- F. Thu, 31 Dec 2015, 10:00-11:40, SSE516 (6 teams)
- G. Mon, 4 Jan 2016, 10:00-11:40, SSE430 (6 teams)
- H. Tue, 5 Jan 2016, 10:00-11:40, SSE516 (6 teams)

Submission

Prior to the presentation, each team should submit the presentation slides to the course instructor or teaching assistant, with the first slide presenting the name of the middleware and the full names and matriculation numbers of all team members. (*Format: PPT/PPTX/PDF; document size: less than 100 MB.*)

Grading Criteria

<i>Grading Criterion</i>	<i>Weight</i>
The history	5%
Major design objectives	10%
Architecture, framework and components	10%
Major functionalities and features	15%
Application scenarios	5%
Comparison with other related middleware	10%
Major steps and issues involved in using the middleware	15%
Quality of presentation slides	15%
Quality of presentation	15%

THE END