

Project 1: RMI & Web Services

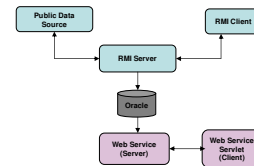
CSE 486/586
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References:

ftp://ftp.oreilly.com/pub/conference/java2001/Hunter_et_al_jaxp.pdf
<http://java.sun.com/developer/technicalArticles/WebServices/jaxb/>

Modules

- ❑ RMI Server
- ❑ RMI Client
- ❑ Web Service (Server)
- ❑ Web Service Servlet (Client)



Core functionalities

- ❑ RMI Server must be able to get data from public data source and store into local database. This must be recurring process
- ❑ RMI Client should connect directly to RMI Server and get the most current data
- ❑ Web Service must be able to interact with the database and provide methods that query (and aggregate) data
- ❑ Servlet must be able to remotely make calls to the Web Service and show the data in a more presentable manner

Core functionalities

- ❑ All the above modules must be totally independent of each other and be deployable in separate contexts and still be able to interact
- ❑ All modules should build and deployable / runnable without giving errors

Suggestions

- ❑ Use of ANT is highly recommended. Server addresses and ports must be required to be specified only in the deployment descriptor.
- ❑ Create database in one person's Oracle account
- ❑ For the RMI Server, you have code that fetches the data once from the public data source. You need to modify this to make it update repeatedly after a pre-defined delay and to add the retrieved data into the database

Suggestions

- ❑ Use `java.util.Timer` and `java.util.TimerTask` for implementing this
- ❑ You may need to take care of duplicate data in the database due to the recurring updates
- ❑ The RMI Client can be used almost without any modification (if doing WeatherService)
- ❑ The Web Service can be modeled on top of the example Hello4586Service shown earlier

Suggestions

- Examples of WeatherService methods:
 - getAllWeatherInfo()
 - getAvailableCities()
 - getAvailableForecastDates()
 - getAverageHighLowTemp()
 - getWeatherInfo(date, city)
 - getWeatherInfoByCity(city)
 - getWeatherInfoByDate(date)
- Will post example WSDL snippets

Suggestions

- The Web Service Client can use JSP or Servlets. A few points will be awarded for look and feel
- Soon I will post an example of my code. You can test your server and client against my client and server respectively.