MIZUHO

Information Systems Department

Middleware Candidate Take Home Project

2.8

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1 Description

A number of vendors provide price information for traded instruments; a traded instrument will have different prices from different vendors. Price data from each vendor is to be cached in a local data store and then distributed to interested downstream systems. The cache will have services to allow clients to publish and retrieve data from the store. Clients are interested in getting all prices from a particular vendor or prices for a single instrument from various vendors. Prices older than 30 days must be removed from the cache.

The task is to design and implement such service. Your solution must include the following:

1) document the design using sequencing diagrams, explaining choices made to arrive at the solution

2) document the domain model for persisted objects using appropriate diagrams

3) document the implementation explaining any design patterns – simple in-memory maps can be used to persist the objects, although this should be easy to change to allow a different persistence implementation i.e. database.

4) all implemented classes must be unit tested

5) document any problems encountered and how they were overcome

6) *optional*: provide a demo for implemented API

Note

✓ The task must be submitted within 7 days of receiving assignment.

✓ Expected estimated effort for this task is 4 - 6 hours.

✓ Candidates are expected to ask as many questions as they can to clarify requirements. Ask the Middleware team directly via email using the following email addresses.

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✓ Candidates must make sure that <u>ALL</u> email addresses above are copied in - this way one of the team members can respond quickly also to cover/support during the weekend.

Document Control

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Document Signoff

Nature of Signoff	Person	Signature	Date	Role
Author	Junichi Suetake			Architecture & Middleware
Reviewer	Alwyn Donnell			Architecture & Middleware

Document Change Record

Date	Version	Author	Change Details
10/05/2011	1.0	Summer Hasani	Initial version
02/07/2013	2.0	Jun Suetake	Added note to clarify a few points
20/12/2013	2.1	Jun Suetake	Added new Middleware team member email addresses
28/04/2014	2.2	Jun Suetake	Added new Middleware team member email addresses
08/04/2015	2.3	Jun Suetake	Added new Middleware team member email addresses
11/02/2016	2.4	Jun Suetake	Added new Middleware team member email addresses
08/08/2016	2.5	Jun Suetake	Added new Middleware team member email addresses
26/04/2017	2.6	Jun Suetake	Updated ESB team member email addresses
22/05/2017	2.7	Jun Suetake	Updated ESB DL team email address
17/07/2017	2.8	Jun Suetake	A few left MHI. Updated ESB DL team email address