CLASSEC Development

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# Story

**Create jobs for static data** – Create a job scheduling framework that will update the database at specified interval with the latest static details of virtual machines for Azure, Openstack, HOS and Vmware.

# Tasks

* **Configuration attributes for jobs** – Create a configuration file to specify attributes for job implementation. Attributes – Interval, Timespec
* **Retrieve data for Azure, Openstack, Vmware, HOS** – Implement methods to update database for Azure, Openstack and Vmware. Create database to populate and update HOS instance details.
* **Implementation of jobs for each provider** – Schedule jobs that will update the database at specified time interval. The jobs should run in parallel with the server that serves APIs.
* **Implementation of Azure API to get static and dynamic details of virtual machines** – Create an API to get static details of Azure virtual machines along with the latest CPU utilization for each virtual machine.

# Environment

Go version go1.7

# Modules impacted

* Server
* DAO

# Files added

* goclassec\src\gclassec\conf\jobconf.json
* goclassec\src\gclassec\dao\hosinsert\insert\_hos\_instances.go

# Files changed

* goclassec\src\gclassec\server\main.go
* goclassec\src\gclassec\dao\azureinsert\azureinsert.go
* goclassec\src\gclassec\dao\openstackinsert\openstack\_insert.go
* goclassec\src\gclassec\dao\vmwareinsert\vmwareinsert.go
* goclassec\src\gclassec\controllers\azurecontroller\azure\_controller.go

# Configuration

* **Configuration file added** – goclassec\src\gclassec\conf\jobconf.json
* **Attributes added** – Interval, Timespec

# Testcases added

* Test whether tables for Azure, Openstack, HOS and Vmware are updated with the latest changes at the specified time interval.
* Test whether jobs are executed in parallel with the server.
* Test whether the APIs are working while jobs are being executed.

# Code coverage

<Code coverage % of developed code>

# challenges faced

* Faced problem while specifying arguments for time.NewTicker() function as Interval attributes is of type int64 and Timespec of type time.Duration. So converted type of Interval to time.Duration in the function argument.
* For database updation, previously used db.Save() function but it didn’t work as the database consists of Primary Key. So used db.Model(value interface{}).Updates(values interface{}) function instead.

# Complexity

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# Checklist for deployment

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