Question 3: (bonus point 02)

FIPA describes reference model for an agent platform in form of key roles necessary for managing the agent platform, these are

i). Agent Management System (AMS),

ii). Agent Communication Channel (ACC) and

iii). Directory Facilitator (DF).

Describe all these roles in the context of JADE Agent Platform, services provided by representative agents for these roles, their interaction among each other. (max 1-2 pages). Use bullets and precise points.

Recall in Jade platform, as in Figure 1, there is a special container, called the main container, which represents the bootstrap point of a platform. When the main container is launched, two special agents are automatically instantiated and started by Jade.



Figure

One is the Agent Management System (AMS), which is the agent that supervises the entire platform. It is the contact point for all agents that need to interact in order to access the white pages of the platform as well as to manage their lifecycle. Every agent is required to register with the AMS in order to obtain a valid AID, and this procedure is automatically carried out by Jade at agent start-up.

The other one is the Directory Facilitator (DF), which is the agent that implements the yellow pages services, used by any agent wishing to register its services or search for other available services. The Jade DF also accepts subscriptions from agents that wish to be notified whenever a service registration or modification is made that matches some specified criteria.