**Nimbus Framework – Architecture**

-> Nimbus is purely built on cloud based framework.

->Nimbus is a open source project which is providing below features

* Enable cloud users to access infrastructure cloud resources more easily
* Enable scientists and developers to extend and experiment with both sets of capabilities.
* Enable resource owners to provide their resources as an infrastructure cloud

-> Nimbus is IaaS based project, which means Infrastructure as a Service.

-> Nimbus builted with all below components

* A WSRF based remote protocol implementation
* An EC2 based remote protocol implementation (partial)
* The RM API bridge between remote protocols/security and specific site manager implementations.
* The cloud client aims to get users up and running in minutes with instance launches and one-click clusters.
* The reference client exposes the entire feature set in the WSRF protocol as a commandline client (with underlying Java client library). For advanced uses, scripting, portal integration, etc.
* The Workspace Pilot allows you to integrate VMs with resources already configured to manage jobs (i.e., already using a batch scheduler like PBS).
* The workspace-control agent implements VMM and network specific tasks on each hypervisor.
* The Context Broker allows clients to coordinate large virtual cluster launches automatically and repeatably.
* The Context Agent lives on VMs and interacts with the Context Broker at VM boot.
* The EC2 backend allows the service to turn around and secure remote resources from off-site.
* The Workspace Service site manager .

-> The core part of Nimbus is builted with spring boot framework with cloud computing technolgies.

-> Deployement process will through by docker process.

-> To utilise Nimbus services, we have used angular js at UI level

-> Now a days angular is one of the top most technology to consume web services.

-> Nimbus framework was customised with custom annotations like @Config.. etc.

-> In Nimbus, used spring rest controller to produces services to execute web pages based on clients code configuration.

-> Along with Spring boot, used spring data to do business operations with Data base like CRUD operations.