**CS551 Advanced Software Engineering**

Feb. 25 (T), 2014

In-Class Exercise

<http://cloud-computing.findthebest.com/compare/5-15-17-24/Amazon-EC2-vs-Google-App-Engine-vs-Microsoft-Windows-Azure-vs-IBM>

Name:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Amazon**  **AWS** | **Google**  **AppEngine** | **Microsoft**  **Azure** | **IBM**  **Smart Business Dev.** |
| Focus | | Infrastructure as service and low cost | Platform | Platform | Infrastructure |
| Infrastructure & Virtualization Architecture | | Xen hypervisors and | Application containers | Virtual machines | Hypervisors |
| Platforms | | Windows serve, Linux, Ubuntu, Debian, Cent OS | Linux, windows server | Windows server | Windows and Linux |
| Persistent Storage | | 160GB | 500MB | 225GB | 60GB |
| Monitoring | | Yes | No | Yes and free charge | Yes and extra charge |
| Load Balancing | | Yes because of elastic load balancing | No because of automatic load balancing | Yes | Yes |
| Message Queues | | Yes | Yes | Yes | Yes |
| Development Tools | | AWS cloud Formation command line tool, Simple command line access to the Amazon EC2, Cloud Former template creation tool, JavaScript scratch pad for Amazon simple DB and many | APP Stats- Dos protection Service configuration., Local unit Testing, Image Manipulation, Users mail, | Microsoft SQL and  Microsoft .Net services, also share point. | IBM Rational Tool. |
| Integration with other services | | Yes | Yes | Yes | Yes |
| Web APIs | | Yes | Yes | No | Yes |
| Programming  Framework | | Windows, .Net, python, mobile, PHP, java, javascript etc | Java, GO experimental, PHP preview | Java, python, PHP, Basic, .Net, C# | Ruby, Node, Java |
| Pricing | Machine | It is $0.145/ hour | It is $0.145/ hour | It is $0.18 /hour | It is $0.0965/ hour |
| Storage | It is $0.125 per GB/month | It is $0.18/GB per month | It is $0.92/ GB per month | It is $0.19/ GB per month. |
| I/O | It is $3.80/ hour | It is $0.08/ hour | It is $0.72/ hour | It is $0.125 per hour |
| Bandwidth | Inbound: $0.00/ GB  Outbound:$0.02/GB | Inbound:$0.00/ GB  Outbound:$0.12/GB | Inbound:$0.1/GB  Outbound:$0.12/GB | Inbound:$0.15/GB  Outbound:$0.15/GB |