

Case Study – 10

(20 points)

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Submission: Save this Word document with your answers as a PDF file and upload the PDF file to Canvas.

(20 pts) The decision has been made to implement the Book Exchange as a cloud-hosted Web application that will be available 24x7. Using publicly available information about Amazon Web Services (such as <https://aws.amazon.com/ec2/pricing/on-demand/> and <https://aws.amazon.com/rds/pricing/>) specify a system that includes the following (at a minimum):

- Web server (pick the OS and server size you feel is appropriate...and why)
- Database server (pick the database server software and size you think is appropriate....and why)
- Email services for up to 10 Book Exchange employees
- Servicer/performance Monitoring
- Additional services

Create an Excel spreadsheet to document your choices and their costs. Make sure you calculate a total monthly cost and a yearly cost for your system.

Web Server	Web Server Size	Web Server Cost	Database Server	Database Server Size	Database Server Cost	Email Services	Email Pricing	Performance Monitoring	Pricing
Linux a1.2xlarge	16 GB	\$0.204/hour	Linux with SQL Standard t3a.xlarge	16 GB	\$0.6304/hour	Gmail	\$6/user/month	DataDog	\$15/host/month
Explanation									
Linux, in my opinion, is one of the best operating systems for running web/app servers due to its simplicity, wide availability of tutorials and services for Linux, and the low-level capabilities of a Linux machine for hosting web services. The 16 GB size gives ample room to start out the service at a relatively low price.			Explanation			Explanation		Explanation	
			To go along with our Linux web/app server, a Linux database using SQL Standard will again simplify things, allow the web server and database server to communicate easily, and provide relatively low-level functionality. SQL Standard is an excellent choice for databases as it is easily learned and widely used in many top-level companies. We'll start with the 16 GB A-version of the server in order to match the size of the app server. The 16 GB A-version is half the price of the 32 GB version, which may be overkill in size, and is also cheaper than the standard 16 GB version of the database server.						
TOTAL PRICING									
Web Server	\$0.204/hour	24/7, a.k.a 168 hours per week * 4 weeks per month =			12 months = \$1,656/year				
Database Server	\$0.6304/hour	24/7, a.k.a 168 hours per week * 4 weeks per month =			12 months = \$5,088/year				
Email Pricing	\$6/user/month	For 10 users @ \$6/user/month =			12 months = \$720/year				
Monitoring Pricing	\$15/host/month	Assuming 1 host/month =			12 months = \$180/year				
			TOTAL/YEAR		\$7,644 per year				