## 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 <a href="https://aws.amazon.com/ec2/pricing/on-demand/">https://aws.amazon.com/ec2/pricing/on-demand/</a> and <a href="https://aws.amazon.com/rds/pricing/">https://aws.amazon.com/rds/pricing/</a>) 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 Size Web Server Cost	Database Server	<b>Database Server Size</b>	Database Server Cost	Email Services	<b>Email Pricing</b>	Performance Monitoring	Pricing
Linux a1.2xlarge	16 GB	\$0.204/hour	Linux with SQL Standard t3a.xlarge 16 GB	16 GB	\$0.6304/hour	Gmail	\$6/user/month DataDog	DataDog	\$15/host/month
Explanation			Explanation			Explanation		Explanation	
Linux, in my opinion,	Linux, in my opinion, is one of the best operating systems	perating systems	To go along with our Linux web/app server, a Linux database using SQL Standard	server, a Linux databa	se using SQL Standard	Gmail is arguably the most widely known		Datadog is an online service for cheap	ce for cheap
for running web/app	or running web/app servers due to its simplicity,	implicity,	will again simplify things, allow the web server and database server to	web server and databa	ise server to	email service today outside of maybe		that provides companies with multiple options	vith multiple options
wide availability of tutorials and services for Linux,	utorials and services	s for Linux,	communicate easily, and provide relatively low-level functionality. SQL	latively low-level func	tionality. SQL	yahoo or aol. Most people do not realize		of monitoring such as Infrastructure Monitoring,	sstructure Monitoring,
and the low-level capabilities of a Linux machine for	pabilities of a Linux	machine for	Standard is an excellent choice for databases as it is easily learned and widely used	latabases as it is easily	learned and widely used	the professional services that a paid		Network Monitoring, or Real User Monitoring.	eal User Monitoring.
hosting web services. The 16 GB size gives ample	5. The 16 GB size give	es ample	in many top-level companies. We'll start with the 16 GB A-version of the server	start with the 16 GB A-	version of the server	Gmail service provides to companies/		All of these options are fleshed out services	sshed out services
room to start out the service at a relatively low price.	service at a relative	ely low price.	in order to match the size of the app server. The 16 GB A-version is half the price of	server. The 16 GB A-v	ersion is half the price of	employees. The pricing is not the cheapest		that provide excellent monitoring services	nitoring services
			the 32 GB version, which may be overkill in size, and is also cheaper than the	erkill in size, and is also	cheaper than the	but the extra services with Google		for cloud-based systems.	
			standard 16 GB version of the database server.	ase server.		Workspace more than makes up for it.			
TOTAL PRICING									
Web Server	\$0.204/hour	24/7, a.k.a 168 ho	24/7, a.k.a 168 hours per week * 4 weeks per month = \$138/month	\$138/month	12 months = \$1,656/year				
Database Server	\$0.6304/hour	24/7, a.k.a 168 ho	24/7, a.k.a 168 hours per week * 4 weeks per month = \$424/month	\$424/month	12 months = \$5,088/year				
Email Pricing	\$6/user/month	For 10	For 10 users @ \$6/user/month =	\$60/month	12 months = \$720/year				
Monitoring Pricing	\$15/host/month	Ass	Assuming 1 host/month =	\$15/month	12 months = \$180/year				
				TOTAL/YEAR	\$7,644 per year				