AWS Architecture Design – Assignment #2

BRIEF

Imagine that you meet with a small startup company in the early stages of their operations. Currently their architecture uses a LAMP stack with MySQL, Apache and PHP all running on one desktop PC within their small office. Like many small start-ups they are confident that they will be the next big thing and expect significant, rapid, yet un-quantified growth in the next few months. With this in mind, they are concerned about:

- scaling to meet the demand, but with uncertainty around when and how much this demand will be they are very concerned about buying too much infrastructure too soon or not enough too late!
- their lack of provision for Disaster Recovery
- their ability to configure their database and data access layer for high performance and throughput
- making the user experience in the browser very low latency even though a large portion of their user base will be from far away
- effective distribution of load
- a self-healing infrastructure that recovers from failed service instances
- security of data at rest and in transit
- securing access to the environment as the delivery team expands
- an archival strategy for inactive objects greater than 6 months
- ability to easily manage and replicate multiple environments based on their blueprint architecture.

OBJECTIVE

Recommend a manageable, secure, scalable, high performance, efficient, elastic, highly available, fault tolerant and recoverable architecture that allows the startup to organically grow. The architecture should specifically address the requirements/concerns as described above.

DELIVERABLES

A PDF document no greater than three or four pages in length that clearly and succinctly present an analysis of the startups requirements and the proposed architecture diagram. Clearly state all assumptions made during the design and explicitly state the referenced Amazon Web Services.

Once complete, send the document to aws-apac-sa-candidate@amazon.com.