

PROJECT SPECIFICATION

Private Cloud SaaS: Three-Tier Web Application

Create Web App Blueprint Satisfying Business Requirements

CRITERIA	MEETS SPECIFICATIONS
Create a three-tier web application blueprint that satisfies the IaaS business requirements for self-service private cloud deployment and security scenarios.	Submitted blueprint with: <ul style="list-style-type: none">Two SSH credentials.Three VM service tiers.One application profile.VM and tasks follow security standards specified.

Web Application Configuration and Scaling Web Tier

CRITERIA	MEETS SPECIFICATIONS
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Enhance the blueprint to provide PaaS by configuring the web application and creating web-tier scaling.	<p>Submitted a blueprint with three service VM configuration of:</p> <ul style="list-style-type: none"> • Load balancer server software • Web tier server software • Database server software <p>Submitted blueprint has:</p> <ul style="list-style-type: none"> • a web application, configured to read and write to the database • post-deployment operation: a web-tier that scales and orchestrate updates to the load balancer configuration • web tier scaling actions that update the load balancer configuration
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Provide a Database Backup Action

CRITERIA	MEETS SPECIFICATIONS
Achieve a SaaS-like experience for developers with delegated, post-deployment operations to back up the database.	Submitted a blueprint with: a database backup custom action, which uses the root account with end-user provided password.

Suggestions to Make Your Project Stand Out!

- Make the web tier scale-in and scale-out actions driven by a variable/macro provided by the user instead of hard coding it to a static value 1.

- Make the database backup action orchestrate the stop and (re)start of web tier or HAProxy services before and after backup for the proper order of operations.
- Make cloud-init leverage macros/variables instead of hard coding account names and public keys.
- Make the database password a mandatory field, use regular expressions to validate 8 or more characters.