A Case Study on Hybrid Cloud Approach to Automate the Cloud Services based on Decision Support System.

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- **Abstract:** Cloud computing introduces advanced functionalities such as application sharing and resource sharing to satisfy user's computing needs. It is a concept in which consumers may access computing resources as Internet-based services (cloud services). Cloud service providers provide a wide selection of asymmetric cloud services with varying capabilities, making it challenging for consumers to choose the appropriate solution for their needs. There are numerous distinct cloud architectures, and many more are currently being developed. IaaS (infrastructure as a service), SaaS (software as a service), and PaaS (platform as a service) are the most common cloud services that can be used on public,private, hybrid, and communityclouds.Hybrid computing systems have lately attracted a lot of interest as a way to achieve large performance increases in a variety of problem categories. There are a few issues that must be addressed in order to succeed with a hybrid cloud approach, such as security and complexity. Amazon's EC2 (Amazon Elastic Compute Cloud) has made a significant contribution to this evolution as one of the earliest public cloud systems.This research paper aims at presenting the hybrid cloud approach to automate the cloud services based on Decision Support System.Firstly, this paper presents the brief introduction to cloud computing. This paper also discussesthe cloud computing servicesand types of cloud deployment models.In addition, this research paper provides the overview on hybrid cloud approach and Decision Support System for Adoption of Cloud-Based Services. Finally, this paper discussed the proposed work "Ranking based Cloud Services Selection Decision Support System".The results show that the digital ocean is recommended as best cloud service provider and amazon is the second-best cloud provider by making a comparison between determined ranking and weights of different cloud service providers.
- **Keywords:** Cloud Computing; Cloud Services; Hybrid cloud approach; Decision Support System; Types of Clouds