SIT 725

Applied Software Engineering

Task 7.1P

Disen Jia

223314816

Cloud Technology Summary:

Cloud computing transforms how we access and deploy applications by delivering services over the Internet. The XaaS (Everything-as-a-Service) model eliminates upfront capital costs through web-accessible, pay-per-use services. Four key service layers provide varying control levels: IaaS offers raw infrastructure, PaaS provides development platforms, SaaS delivers complete applications, and FaaS enables function-based computing. Cloud platforms handle irregular demand patterns through horizontal scaling (adding more servers) and vertical scaling (upgrading existing resources). High availability is very important, with "five 9s" (99.999% uptime) allowing only 5.26 minutes of downtime annually. For developers, cloud computing streamlines deployment, removes infrastructure management overhead, and allows focus on core business logic rather than supporting systems.