



UNIVERSITY OF SRI JAYEWARDENEPURA

Faculty of Technology

Department of Information and Communication Technology

ITC 3013 - Service Oriented Architecture & Web Services

Assignment -1

Deadline :1st of August 2024

1. Compare and contrast the Layered Pattern and the Client-Server Architecture in terms of their structure and ideal use cases.
2. Discuss the strategic importance of performance, scalability, and security in the context of software architectural patterns. Provide examples of patterns that specifically address these issues.
3. Explain how the concept of high availability is implemented in the Master-Slave Pattern and give a real-world example of its application.
4. In what ways does the Microservices Architecture pattern adhere to the Single Responsibility Principle, and what are the implications of this adherence for system maintainability and scalability?
5. Describe the historical evolution of API architectural styles, from RPC to GraphQL, highlighting the main advantages and limitations of each style.
6. Analyze the pros and cons of Monolithic Architecture compared to Microservices Architecture in terms of fault tolerance, deployment, and response time.
7. What is a Web Service and how does it support interoperability between different software applications?
8. Explain the key differences between Type I and Type II web services.
9. What role does the Service Registry play in SOA
10. How does SOA provide a cost-effective solution for enterprises with existing investments in legacy systems?