Cloud computing is a key factor that facilitates data management and large-scale application operation by providing flexibility in resource allocation and reducing operational costs [1]. Amazon Web Services (AWS) is also considered one of the most important cloud service providers, offering a range of advanced tools that enable companies and institutions to design a reliable, secure, and 24/7 available infrastructure [3]. This report aims to illustrate the design of a system based on AWS services that achieves seamless integration between cloud applications and enhances data management efficiency. Amazon EC2 was used to provide virtual computing resources, allowing users to run their applications in a flexible environment that supports scaling as needed [4]. Additionally, Amazon S3 was used for secure and reliable data storage, enabling instant backup and retrieval of files, which is vital for ensuring service continuity and data security [5]. To facilitate communication between different system components, Amazon API Gateway was used to provide unified programming interfaces that help achieve integration between applications and services. AWS Lambda was also used to execute custom functions without the need for server management, allowing the creation of event-driven applications that can quickly respond to changes and user [2]. Through this report, we will demonstrate how AWS services were used to create an integrated system that supports security, flexibility, and responsiveness to meet the diverse needs of institutions.