

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
“JNANA SANGAMA”, Belagavi, Karnataka-590018



COURSE: INTERNET OF THINGS (25MCS105D)

ACTIVITY REPORT ON

“GOOGLE CLOUD PLATFORM”

*Submitted in partial fulfillment of the requirements for the Internal Assessment
(Assignment) for the First semester of*

MASTER OF TECHNOLOGY
IN
COMPUTER SCIENCE AND ENGINEERING

Submitted by

Name: **B NAYANA**
USN: **1KS25SCS01**

Under the Guidance of

Dr. Krishna Gudi
Associate Professor



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
K. S. INSTITUTE OF TECHNOLOGY®
(An Autonomous Institution under VTU)

No.14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-560109

2025-2026

ABSTRACT

This report provides a comprehensive analysis of Google Cloud Platform (GCP), focusing on its structure, core services, features, and practical applications in modern cloud computing environments. The objective of the report is to examine how GCP supports businesses and developers in building, deploying, and managing scalable applications through cloud-based solutions. It outlines the fundamental concepts of cloud computing before exploring the architecture and service models offered by GCP, including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and serverless computing.

The report further evaluates key components such as computing, storage, networking, databases, security mechanisms, and data analytics tools. It also discusses the benefits, limitations, pricing considerations, and real-world use cases of the platform. Through this analysis, the report aims to present a clear understanding of how GCP contributes to digital transformation, operational efficiency, and innovation. The findings emphasize the platform's reliability, scalability, and performance as critical factors in its growing adoption across various industries.

It examines performance efficiency, global infrastructure, security standards, and support services to provide a balanced evaluation. The study also addresses potential challenges such as cost management, migration complexity, and dependency on cloud environments. By combining theoretical insights with practical examples, the report offers a well-rounded perspective intended to support informed decision-making for organizations considering the adoption of cloud technologies.

CONTENTS

Sl. No	Chapter Name	Page no
1	Introduction	1
2	Data Flow	3
3	Key Features	6
4	System Interface Description	11
5	Use Case Mapping	14
6	Conclusion	22
7	References	24

List of Figures

Sl. No	Snapshot Name	Page no
1	Google Cloud Platform Variations	2
2	Data Flow of Google Cloud Platform	5
3	Compute Services	6
4	Data Analytics Services	7
5	Security and Identity Services	8
6	Infrastructure Modernization Services	8
7	Developer Tool and Managing Services	9
8	Serverless Computing Service	9
9	Security Compliance Service	10
10	Google Cloud Platform Architecture	12
11	Flow of Splunk enterprise using GCP	15
12	DevOps Pipeline in GCP	16