

# **PROGRAM BOOK FOR SHORT-TERM INTERNSHIP**

**Name of the Student:** V. Venkata Sai Teja

**Name of the college:** SRK Institute of Technology

**Registration Number:** 21X41A0560

**Period of Internship:** 03.01.2024 to 03.03.2024

**Name &Address of the organization:**

EduSkills Cohort 8 Virtual Internship  
Jawaharlal Nehru Technological University Kakinada

**Academic Year:** 2024-25

An Internship Report on

## **AWS Data Engineering Virtual Internship**

Submitted to

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA**

In partial fulfillment of the requirement for the award of the degree of

**BACHELOR OF TECHNOLOGY**  
**in**

**COMPUTER SCIENCE AND ENGINEERING**

Submitted by  
**V. Venkata Sai Teja**

Under the guidance of

(Guide Name)  
**Assistant Professor**



**S.R.K INSTITUTE OF TECHNOLOGY**

**Enikepadu, Vijayawada-521108**

**Andhra Pradesh**

## **Student's Declaration**

I, V.Venkata Sai Teja student of AWS Data Engineering Virtual Internship Program, Reg.No: 21X41A0560 of the Department of Computer Science and Engineering, SRK Institute of Technology do hereby declare that I have completed the mandatory internship from 03.01.2024 to 03.03.2024 in EduSkills Cohort – 8 Virtual Internship under the Faculty Guide ship of (Guid name), Department of Computer Science and Engineering, SRK Institute of Technology.

(Signature and Date)

# Certificate from Intern Organization



अंतर्राष्ट्रीय शिक्षणीय संस्थाएँ  
All India Council for Technical Education



## Certificate of Virtual Internship

This is to certify that

Vadlamani Venkata SaiTeja

SRK Institute of Technology

has successfully completed 10 weeks  
Data Engineering Virtual Internship

During January - March 2024

Supported By

Shri Buddha Chandrasekhar  
Chief Coordinating Officer (CCO)  
NEAT Cell, AICTE

Dr. Satya Ranjan Biswal  
Chief Technology Officer (CTO)  
EduSkills



Certificate ID :477e5827b3af8a64b396b278bb40952b

Student ID :STU626bae76d37a11651224182



## **OFFICIAL CERTIFICATION**

This is to certify that V.Venkata Sai Teja Reg. No: 21X41A0560 has completed his/her Internship in AWS Data Engineering Virtual Internship under my supervision as a partial fulfillment of the requirement for the Degree of Bachelor of Technology in the Department of COMPUTER SCIENCE AND ENGINEERING, SRK INSTITUTE OF TECHNOLOGY.

This is accepted for evaluation.

(Signatory with Date and Seal)

## **Endorsements**

Faculty Guide:

Head of the Department:

Principal:

## **Acknowledgements**

First of all, I would like to convey my sincere thanks to the Almighty for the blessings on me to carry on this internship without any disruption.

I am extremely thankful to **(Guid name)**, the internship Guide who guided me throughout the internship. I am thankful to her for giving me the most independence and freedom throughout various phases of the internship.

I am very grateful to **Dr. A. Radhika**, H.O.D of CSE Department, for her valuable guidance which helps me to make our internship successful. Details of the internship. Her matured and patient guidance paved a way for completing my internship with the sense of satisfaction and pleasure.

I am very much thankful to our principal **Dr. M. Ekambaram Naidu** for his kind support and facilities provided at our campus which helped me to bring out this internship successfully.

I am very much thankful to EduSkills Cohort – 8 Virtual Internship team who guided me throughout the internship. I am thankful to the team of EduSkills Cohort – 8 Virtual Internship for giving me the most independence and freedom throughout various phases of the internship.

Finally, I would like to convey my heart full thanks to all technical Staff, for their guidance and support in every step of this internship. I convey my sincere thanks to all the faculty and friends who directly or indirectly helped me with the successful completion of this internship.

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## CHAPTER 1: EXECUTIVE SUMMARY

During the AWS Data Engineering Virtual Internship, I gained valuable insights into new and emerging technologies that are shaping the industry and enhancing job readiness. This internship provided a deep dive into the world of data engineering, equipping me with the skills necessary to navigate the current job market and understand industry requirements.

The Data Engineering Virtual Internship Course offered by Amazon Web Services (AWS) was structured to cover both fundamental principles and advanced techniques in data engineering. Key highlights of the program included:

- Comprehensive Data Engineering Foundations: I explored core concepts, including data ingestion, storage solutions, transformation processes, and data analysis. This foundational knowledge is critical for anyone looking to work in data-centric roles, as it encompasses the entire data lifecycle from acquisition to insight generation.
- Hands-On Experience: The course emphasized practical application through real-world scenarios, allowing participants to implement data pipelines, utilize AWS services like S3, Glue, and RDS, and engage in data visualization with QuickSight. This hands-on experience not only reinforced theoretical concepts but also prepared me to tackle actual challenges faced in the industry.
- Performance Optimization and Best Practices: I learned about optimizing data workflows and the importance of efficient resource management. Understanding performance metrics and employing best practices for data handling and security were crucial components of my training, ensuring I am equipped to design robust and scalable data systems.
- Networking and Collaboration Opportunities: Throughout the internship, I had the chance to connect with peers and industry professionals, fostering a collaborative learning environment that enriched my experience. Engaging with mentors and participating in group discussions provided valuable insights into real-world applications and industry trends.
- Cybersecurity Awareness: Recognizing the increasing importance of data security, the course incorporated elements of cybersecurity best practices. I gained an understanding of how to safeguard data in transit and at rest, ensuring compliance with industry regulations and protecting sensitive information from potential threats.
- Project Development and Presentation Skills: As part of the internship, I worked on a capstone project that required synthesizing all the skills acquired throughout the program. This project involved developing a complete data pipeline, from ingestion to visualization, and culminated in a presentation to peers and mentors. This experience honed my ability to communicate technical concepts effectively and showcase my work to an audience.

## **CHAPTER 2: OVERVIEW OF THE ORGANIZATION**

### **A. Introduction of the Organization**

EduSkills is a Non-profit organization which enables Industry 4.0 ready digital workforce in India.

### **B. Vision**

- Our vision is to fill the gap between Academia and Industry by ensuring world class curriculum access to faculties and students.
- To benefit the education ecosystem by providing 360<sup>o</sup> degree holistic solutions to all the stakeholder

### **C. Mission**

- We want to completely disrupt the teaching methodologies and ICT based education system in India.
- We work closely with all the important stakeholders in the ecosystem (Students, Faculties, Education Institution and Central/State Governments) by bringing them together through our skilling interventions.

### **D. Values of the Organization**

- Students will get opportunities to participate in all National Level competitions & events organized by the corporates.
- As an Academy student gain access to innovative learning tools, a global support community, and resources to help them to launch their career.
- Mentoring by industry experts and IT leaders

### **E. Future Plans of the Organization.**

To positively impact 1 million beneficiaries by 2025

## **CHAPTER 3: INTERNSHIP PART**

Data Engineering Virtual Internship has been announced for college students who are pursuing their degrees at engineering colleges, polytechnic and degree institutes which are members of EduSkills. The internship is 8 weeks long. The shortlisted students who enrolled for the course. First the enrolled students need to inform their guides that they have received their shortlisted for the course. The student needs to follow the process document which is given by the EduSkills. He/She needs to create an AWS account. After that they need to login through their login ID and password. The courses will be displayed on the dashboard. The students need to select each course. First, he/she needs to launch the course and after that they need to follow the classes and then finally, they need to take an assessment of that. After completion of the assessment, they will receive the certificate in that course and then need to complete the further courses too. Then the students need to submit each digital badge link in the EduSkills portal then the organization will verify that digital badge link and after verifying the digital badge link and then the student will get their other submission course link after submitting all their certificates in the EduSkills portal. The student will receive the link to download their final certificate link from the EduSkills and then the student needs to enter the mail id and OTP after that he/she can download their internship certificate.

### **Equipment used:**

System/Laptop provided by the organization to complete the internship.

## CHAPTER-4

### ACTIVITY LOG FOR THE FIRST WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcomes</b>	<b>Person In-charge Signature</b>
Day-1	Attended the orientation session, set up AWS account, and configured IAM roles.	I gained an overview of the internship goals and familiarized myself with the AWS Management Console.	
Day-2	Explored key AWS services such as S3, EC2, and RDS through guided tutorials.	Developed foundational knowledge of AWS services and their use cases in data engineering.	
Day-3	I participated in a workshop focused on Amazon S3, including bucket creation and data management.	Learned about S3 features such as versioning, lifecycle policies, and data retrieval methods.	
Day-4	I studied AWS Identity and Access Management (IAM) and best practices for securing resources.	Understood user roles, permissions, and the importance of security in cloud environments.	
Day-5	I attended a seminar on data engineering principles, including ETL processes.	Gained insights into the data lifecycle, data warehousing, and key terminology.	
Day-6	Completed hands-on labs to reinforce learning on S3 and IAM.	Applied theoretical knowledge practically, enhancing my confidence in using AWS services.	

# WEEKLY REPORT

## WEEK-1(From: 03-01-2024 to: 10-01-2024)

### **Objective of the Activity Done:**

- Understand the internship structure and expectations.
- Familiarize with AWS core services and basic cloud computing concepts.

### **Detailed Report:**

The internship commenced with a thorough orientation that introduced us to the program's structure, objectives, and resources available for our learning journey. I was introduced to key personnel, including mentors and instructors, who outlined their roles and how they would assist us throughout the internship.

Setting up my AWS account was the first practical step. This involved configuring Identity and Access Management (IAM) roles, which emphasized the importance of secure user permissions in a cloud environment. Through guided tutorials, I explored fundamental AWS services, beginning with Amazon S3, where I learned about object storage capabilities, including bucket creation, data upload, and the concept of data lifecycle management.

I also delved into Amazon EC2, understanding how to launch virtual servers for processing data and running applications. The week concluded with an introduction to Amazon RDS, where I grasped the essentials of relational databases, including instance types, storage options, and security features. This foundational knowledge set the stage for more complex data engineering concepts in the weeks to come.

## ACTIVITY LOG FOR THE SECOND WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Day – 1	I attended a workshop on data ingestion methods (batch vs. streaming).	Understood various data ingestion techniques and their use cases.	
Day - 2	Explored AWS Glue and its role in ETL processes	Gained insights into automating extraction, transformation, and loading.	
Day – 3	Created Glue jobs to ingest sample data into Amazon S3.	Learned how to automate the ingestion process using Glue.	
Day – 4	I studied various data formats (CSV, JSON, Parquet) and their applications.	Understood the implications of data formats on storage and processing.	
Day – 5	Configured Glue crawlers to populate the Data Catalog.	I learned to manage metadata and automate data discovery.	
Day –6	Built a simple data ingestion pipeline using AWS Glue.	Reinforced knowledge of data flows from source to storage.	

## WEEKLY REPORT

### WEEK–2 (From 11-01-2024 to: 17-01-2024)

#### **Objective of the Activity Done:**

- Learn various data ingestion techniques applicable to cloud environments.
- Gain hands-on experience using AWS Glue for ETL processes.

#### **Detailed Report:**

In week two, the focus shifted to data ingestion methodologies, essential for populating data lakes and warehouses. I participated in an in-depth workshop that covered the differences between batch processing and real-time streaming ingestion, including their respective use cases and trade-offs.

I was introduced to AWS Glue, a key service for ETL (Extract, Transform, Load) processes. I engaged in hands-on labs where I created Glue jobs to automate the ingestion of sample datasets into Amazon S3. This involved defining data sources, setting up crawlers to populate the Glue Data Catalog, and executing ETL scripts to transform raw data into usable formats.

Throughout the week, I also explored various data formats, including CSV, JSON, and Parquet. I learned how each format affects storage efficiency, processing speed, and compatibility with different analytical tools. By the end of the week, I successfully built a simple data ingestion pipeline, reinforcing my understanding of how to effectively manage data flow from source to storage.

## ACTIVITY LOG FOR THE THIRD WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Day – 1	Explored different AWS storage services and their benefits.	Gained insights into selecting appropriate storage architectures.	
Day - 2	Implemented storage classes and lifecycle policies in S3.	Learned cost-effective management practices for data storage.	
Day – 3	Created an RDS instance, configured backups, and explored security settings.	Understood database instance management and security configurations.	
Day – 4	Set up a DynamoDB table and explored NoSQL concepts.	Gained insights into the advantages of using NoSQL databases.	
Day – 5	Designed data lake architecture using Amazon S3.	Understood the benefits of storing diverse data types in a data lake.	
Day –6	Reviewed the best security practices for AWS storage services.	Learned to implement security measures to protect data.	

## **WEEKLY REPORT**

### **WEEK–3 (From 18-01-2024 to 24-01-2024)**

#### **Objective of the Activity Done:**

- Explore and implement different AWS storage solutions.
- Understand the design principles and benefits of data lakes versus data warehouses.

#### **Detailed Report:**

Week three centered on AWS storage solutions, with a strong emphasis on choosing the right storage architecture for specific data needs. I engaged in detailed discussions about the characteristics of different storage options, including Amazon S3 for unstructured data, Amazon RDS for structured data, and Amazon DynamoDB for NoSQL solutions.

Hands-on activities included creating and configuring an RDS instance, where I learned about database instance types, security configurations, and backup strategies. I executed SQL queries to manipulate data and understood the implications of relational database design in the context of data engineering.

A significant part of the week involved designing a data lake architecture using Amazon S3 as the core storage solution. I learned about the advantages of data lakes, including their ability to store diverse data types and their scalability. By comparing data lakes and data warehouses, I grasped the appropriate use cases for each approach.

I also emphasized data security by studying AWS security best practices, particularly regarding S3 and RDS. This included understanding encryption at rest and in transit, access control policies, and compliance with data protection regulations.

## ACTIVITY LOG FOR THE FOURTH WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Day – 1	Attended a session on the importance of data transformation	Learned how to convert raw data into usable formats.	
Day - 2	Created Glue jobs for data cleaning and transformation.	Gained practical experience in executing transformation workflows.	
Day – 3	Developed Python scripts for data manipulation.	Enhanced programming skills related to data processing.	
Day – 4	Implemented validation checks within transformation jobs.	Understood the importance of maintaining data quality.	
Day – 5	Practiced writing complex SQL queries for data analysis.	Improved ability to manipulate and analyze data effectively.	
Day –6	Completed a project to transform a large dataset into a structured format.	Applied learned concepts in a real-world scenario.	

# WEEKLY REPORT

## WEEK-4 (From 25-01-2024 to 31-01-2024)

### **Objective of the Activity Done:**

- Implement data transformation techniques using AWS Glue.
- Ensure data quality through validation processes and best practices.

### **Detailed Report:**

In week four, I delved deeply into data transformation processes, which are critical for preparing raw data for analysis. I participated in workshops focused on AWS Glue's capabilities for cleaning, enriching, and transforming data. Through practical exercises, I wrote transformation scripts using Python, which allowed me to manipulate datasets effectively.

I learned the significance of data quality and validation checks during transformation. This included implementing rules to verify data integrity and accuracy, which are crucial for ensuring reliable analytics. I also practiced writing SQL queries to filter, aggregate, and join data, further enhancing my analytical capabilities.

A major highlight of the week was a project where I transformed a large dataset from a raw format to a structured, analysis-ready format. This project required me to apply all the transformation techniques I had learned, from data cleansing to formatting. Presenting my project results to peers provided valuable feedback and insights, reinforcing the importance of collaboration and peer review in the data engineering field.

## ACTIVITY LOG FOR THE FIFTH WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-Charge Signature</b>
Day – 1	I attended a workshop on data visualization principles and tools.	Learned about the significance of visualizing data for insights.	
Day - 2	Set up AWS QuickSight and connected it to data sources.	Gained hands-on experience with a business intelligence tool.	
Day – 3	Designed and built interactive dashboards in QuickSight.	Learned to represent data visually for better understanding.	
Day – 4	Explored features like calculated fields and filters in QuickSight	Enhanced the interactivity and usability of dashboards.	
Day – 5	Presented dashboards to peers for feedback.	Improved design skills based on constructive feedback.	
Day –6	Completed visualization projects for final presentation.	Developed skills in effectively communicating insights through visuals.	

# WEEKLY REPORT

## WEEK-5 (From: 01-02-2024 to 07-02-2024)

### **Objective of the Activity Done:**

- Explore data visualization tools and techniques available in AWS.
- Create meaningful visualizations to facilitate data analysis and reporting.

### **Detailed Report:**

Week five introduced me to data visualization, a crucial aspect of data engineering that allows stakeholders to derive insights from data easily. I learned to use AWS QuickSight, a cloud-based business intelligence service, which enables users to create interactive dashboards and reports.

Through guided tutorials, I connected QuickSight to various data sources, including RDS and S3. This hands-on experience helped me understand how to design and build dashboards that represent data visually, making it accessible to non-technical stakeholders. I explored different types of visualizations, such as bar charts, line graphs, and pie charts, and learned when to use each type for effective storytelling with data.

Advanced techniques, including filtering and calculated fields, were also covered. I practiced creating dashboards that not only display data but also allow for user interaction, enabling deeper exploration of datasets. Peer review sessions were instrumental in refining my visualizations, providing an opportunity for constructive feedback and collaborative learning.

By the end of the week, I had completed several visualization projects, showcasing my ability to communicate complex data insights effectively and make data-driven recommendations.

## ACTIVITY LOG FOR THE SIXTH WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Day – 1	I attended a seminar on cloud data security principles.	Gained foundational knowledge of data protection measures.	
Day – 2	Explored IAM policies, roles, and permissions.	Learned to implement secure user access management.	
Day – 3	Studied compliance standards such as GDPR and HIPAA.	Understood the implications of regulations for data management.	
Day – 4	Conducted a mock security audit of a data pipeline.	Identified potential vulnerabilities and mitigation strategies.	
Day – 5	Collaborated on a project to enhance security within data pipelines.	Gained practical experience in applying security best practices.	
Day – 6	Discussed key lessons learned about data security.	Reinforced the importance of security in data engineering.	

## **WEEKLY REPORT**

### **WEEK-6 (From 08-02-2024 to 14-02-2024)**

#### **Objective of the Activity Done:**

- Understand data security best practices in AWS environments.
- Learn about compliance standards and their implications for data management.

#### **Detailed Report:**

Week six emphasized the critical nature of data security and compliance in cloud environments. I attended seminars on best practices for securing data in AWS, focusing on the implementation of IAM policies, roles, and permissions. I learned how to design a security model that aligns with the principle of least privilege, ensuring users have only the necessary access to perform their roles.

Compliance with industry standards such as GDPR and HIPAA was another focal point of this week. I explored the requirements of these regulations and how they influence data handling and storage practices within AWS. A key activity involved conducting a mock security audit of a data pipeline, where I identified potential security vulnerabilities and proposed mitigation strategies.

In a collaborative group project, my peers and I implemented security measures within a data pipeline scenario, reinforcing my understanding of real-world security challenges and solutions. By the end of the week, I felt confident in my ability to address data security concerns and ensure compliance with regulatory standards.

## ACTIVITY LOG FOR THE SEVENTH WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Day – 1	Attended a session on advanced data engineering tools and techniques.	Familiarized with big data processing frameworks.	
Day – 2	Explored Spark architecture and its role in big data processing.	Gained foundational knowledge of distributed computing.	
Day – 3	Executed Spark jobs using AWS EMR.	I learned to efficiently process large datasets.	
Day – 4	Studied AWS Step Functions and their application in workflow management.	Understood how to coordinate complex data tasks.	
Day – 5	Collaborated to design and implement a data processing pipeline.	Integrated advanced concepts into a practical project.	
Day – 6	Presented the group project to mentors for feedback.	Improved presentation skills and received constructive criticism.	

# **WEEKLY REPORT**

## **WEEK-7 (From 15-02-2024 to 21-02-2024)**

### **Objective of the Activity Done:**

- Explore advanced data engineering concepts and tools.
- Understand big data processing frameworks and their practical applications.

### **Detailed Report:**

Week seven was dedicated to advanced data engineering topics, where I explored big data processing frameworks, including Apache Spark and AWS EMR. I engaged in hands-on labs that demonstrated how to run Spark jobs on AWS, processing large datasets efficiently and gaining insights from them.

I learned about the architecture of distributed computing and how Spark leverages clusters to perform data processing at scale. This included understanding concepts such as RDDs (Resilient Distributed Datasets) and DataFrames, which are pivotal for performing complex transformations and analyses on big data.

The week also introduced me to data orchestration tools, specifically AWS Step Functions, which facilitate the coordination of microservices and tasks in data workflows. I participated in a group project to design a scalable data processing pipeline that utilized both Spark and Step Functions, applying the various tools and techniques we had learned throughout the internship.

This experience reinforced the importance of integrating advanced technologies to handle large volumes of data efficiently, preparing me for the complexities of real-world data engineering tasks.

## ACTIVITY LOG FOR THE EIGHTH WEEK

<b>Day &amp; Date</b>	<b>Brief description of the daily activity</b>	<b>Learning Outcome</b>	<b>Person In-charge Signature</b>
Day – 1	Defined project scope, objectives, and timeline for the capstone project.	Established a clear roadmap for implementation.	
Day – 2	Built a complete data pipeline integrating AWS services.	Applied knowledge of data ingestion, transformation, and storage.	
Day – 3	Conducted testing and debugging of the data pipeline.	Ensured functionality and identified areas for improvement.	
Day – 4	Documented the data pipeline process and results.	Developed skills in technical writing and documentation.	
Day – 5	Prepared a presentation to showcase the capstone project.	Enhanced public speaking and presentation skills.	
Day – 6	Presented the capstone project to peers and mentors.	Received feedback and reflections on the overall internship experience.	

# WEEKLY REPORT

## WEEK-8 (From 22-02-2024 to 28-03-2024)

### **Objective of the Activity Done:**

- Apply all learned concepts in a comprehensive capstone project.
- Reflect on the overall learning experience, identify strengths, and outline future growth areas.

### **Detailed Report:**

The final week of the internship was dedicated to the capstone project, where I integrated all the skills and knowledge acquired over the past eight weeks. I designed and implemented a complete data pipeline that encompassed data ingestion, transformation, storage, analysis, and visualization.

My project involved setting up a data ingestion process using AWS Glue to extract data from an external source, followed by transformation using Glue jobs to prepare the data for analysis. I stored the transformed data in Amazon S3 and built interactive dashboards in AWS QuickSight to visualize key metrics.

Presenting my capstone project to mentors and peers was a significant milestone. The feedback I received highlighted my technical abilities and provided insights into areas for further development. This presentation experience also enhanced my communication skills, which are crucial in the data engineering field.

Reflecting on my overall learning journey, I recognized substantial growth in both my technical and soft skills. The mentorship and resources provided throughout the internship were invaluable, and I am now more equipped to pursue a career in data engineering. I left the program with a deeper understanding of the data engineering landscape and a clear plan for continued learning and professional development.

## CHAPTER 5: OUTCOMES AND CONCLUSION

**Describe the real-time technical skills you have acquired** (in terms of the job-related skills and hands-on experience)

Upon completing the AWS Data Engineering Virtual Internship, I gained valuable hands-on experience and practical skills essential for a career in data engineering. Key outcomes of my training include:

- **Data Ingestion and Processing:** I developed proficiency in using AWS services such as AWS Glue, Amazon S3, and Amazon RDS to ingest, clean, and transform data efficiently.
- **ETL Pipeline Implementation:** I gained practical experience in designing and implementing ETL (Extract, Transform, Load) pipelines, allowing me to understand the full data lifecycle.
- **Data Analysis and Visualization:** I learned to utilize AWS QuickSight for data analysis and visualization, enhancing my ability to interpret data insights and communicate findings effectively.
- **Cloud Security Practices:** I became familiar with best practices for securing data in the cloud, including identity and access management (IAM) and compliance with data governance standards.
- **Collaborative Problem-Solving:** Through team projects, I honed my collaborative skills, learning to tackle real-world challenges while working with peers.
- **Professional Networking:** I had the opportunity to connect with industry professionals and mentors, potentially paving the way for future job opportunities and references.

### Technological Developments Observed

Throughout the internship, I observed several technological advancements relevant to data engineering and cloud computing, which are essential for staying competitive in the field. Some of the latest trends include:

- **Serverless Computing:** Technologies such as AWS Lambda are enabling organizations to build and deploy applications without the need for managing servers, enhancing scalability and cost efficiency.
- **Big Data Processing Frameworks:** Tools like Apache Spark and AWS EMR are crucial for processing large datasets, allowing for real-time analytics and insights.
- **Data Lakes and Warehousing Solutions:** The rise of data lakes and modern data warehousing solutions, like Amazon Redshift, facilitates the storage of vast amounts of structured and unstructured data, promoting more flexible data analytics.
- **Machine Learning Integration:** AWS provides a range of tools for integrating machine learning into data workflows, empowering organizations to leverage predictive analytics for improved decision-making.
- **Real-Time Data Streaming:** Technologies such as Amazon Kinesis are revolutionizing how businesses process and analyze streaming data in real time, providing instant insights.
- **Data Governance and Security:** As data privacy regulations become more stringent, advancements in data governance tools and compliance frameworks are vital for ensuring data security and ethical handling of sensitive information.

### Conclusion

In conclusion, the AWS Data Engineering Virtual Internship equipped me with essential technical skills and practical experience needed to thrive in the field of data engineering.

## **Student Self-Evaluation of the Short-Term Internship**

**Student Name: V. Venkata Sai Teja**

**Registration No: 21X41A0560**

**Term of Internship: 2 MONTHS**

**From: 03-01-2024**

**To: 03-03-2024**

**Date of Evaluation:**

**Organization Name & Address: SRK INSTITUTE OF TECHNOLOGY,**

**VIJAYAWADA**

**Please rate your performance in the following areas:**

**Rating Scale: Letter grade of CGPA calculation to be provided**

1	Oral communication	1	2	3	4	5
2	Written communications	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
<b>15</b>	<b>OVERALL PERFORMANCE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Date:**

**Signature of the Student:**

## Evaluation by the Supervisor of the Intern Organization

**Student Name: V. Venkata Sai Teja**

**Registration No: 21X41A0560**

**Term of Internship: 2 MONTHS**

**From: 03-01-2024**

**To: 03-03-2024**

**Date of Evaluation:**

**Organization Name & Address: EDUSKILLS**

**Name & Address of the Supervisor with Mobile Number: (Guide name), (Guide mobile number)**

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the student's self-evaluation

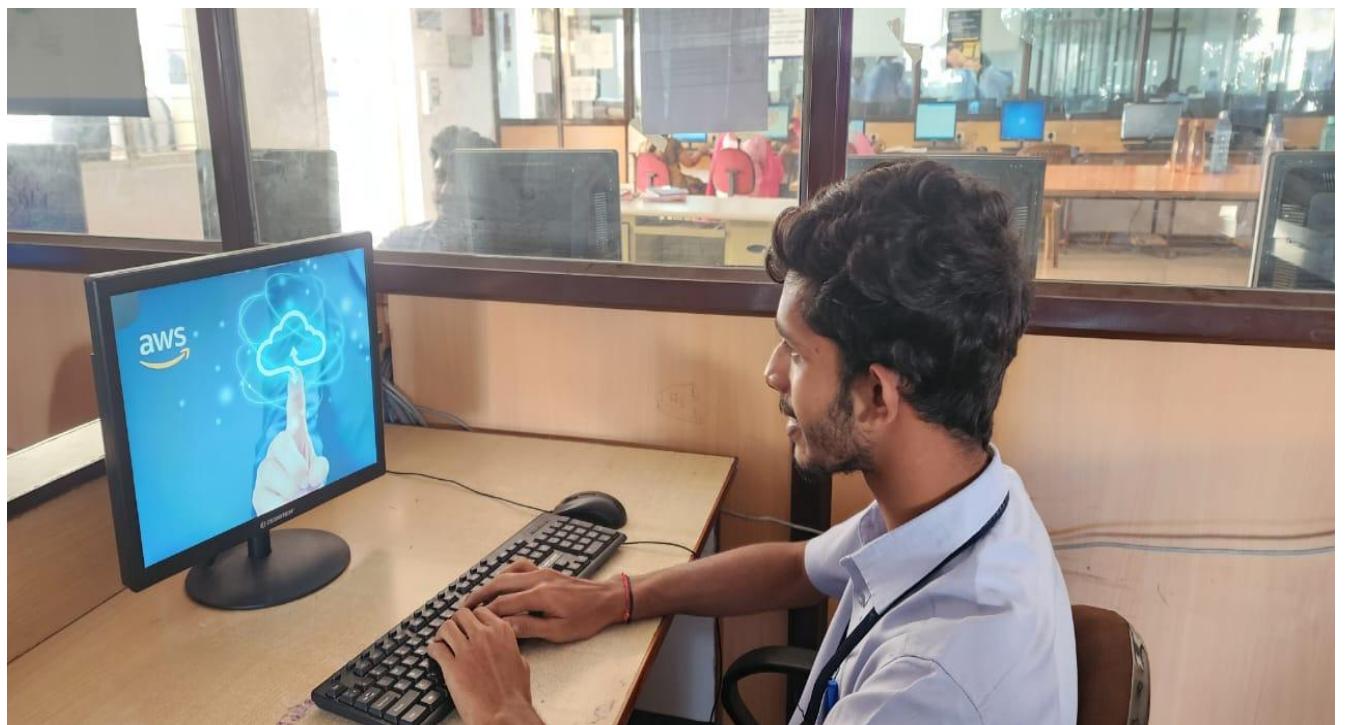
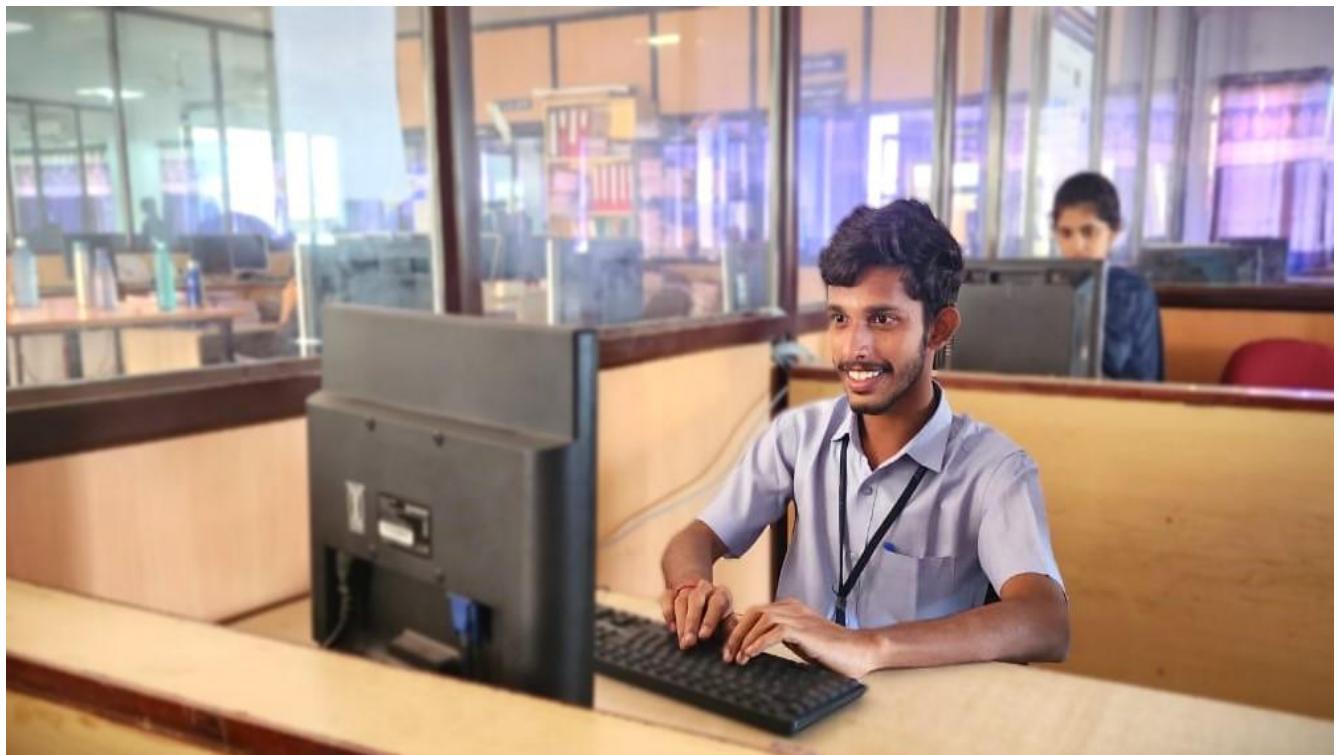
Rating Scale: 1 is lowest and 5 is highest rank .

1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Proactiveness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
<b>15</b>	<b>OVERALL PERFORMANCE</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**Date:**

**Signature of the Supervisor**

## PHOTOS & VIDEO LINKS



**MARKS STATEMENT**  
**(To be used by the Examiners)**

## **INTERNAL ASSESSMENT STATEMENT**

**Name of the Student:** V. Venkata Sai Teja

**Program of Study:** B. Tech

**Year of Study:** IV, 2024-25

**Group:** Computer Science & Engineering

**Register No/H.T. No:** 21X41A0560

**Name of the College:** SRK Institute of Technology

**University:** JNTUK

<b>S.No</b>	<b>Evaluation Criterion</b>	<b>Maximum Marks</b>	<b>Marks Awarded</b>
1.	Activity Log	25	
2.	Internship Evaluation	50	
3.	Oral Presentation	25	
	<b>GRAND TOTAL</b>	100	

Date:

Signature of the Faculty Guide

**Certified by**

Date:

Signature of the Head of the Department/Principal

**Seal:**



## **ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION**

**(A Statutory Body of the Government of Andhra Pradesh)**

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