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A Report on Guest Lecture on "Big data analytics and BI tools"

Date of the Event	07.02.2024
Title of the Event	Guest Lecture on "Big data analytics and BI tools"
Organized by	Dept of Computer Science and Engineering, Dept of Information Science and Engineering

The Computer Science and Engineering Department and the Information Science and Engineering Department organized a guest lecture on the topic "Big Data Analytics and BI tools"

Speaker at the Event: Mr.Koteswararao Ravipati

Mr.Koteswararao Ravipati is a seasoned professional with 14 years of experience in Java, J2EE, Android, Android automotive, SQL and NoSQL databases, DevOps tools (Docker, Kubernetes), Cloud (AWS, Azure), and visualization tools (Tableau, PowerBI). Currently serving as a Principal Engineer at HARMAN International, Koteswararao has been instrumental in driving innovation and leading projects in Bangalore, India.

Prior to this, he held roles as Lead Engineer at CenturyLink and Senior Software Engineer at Model N. With a foundation in Electrical and Electronics Engineering from JNTU and a Master's degree in Information Technology from the Indian Institute of Information Technology & Management-Kerala, Koteswararao combines academic rigor with practical expertise.

His diverse skill set and extensive experience make him a valuable asset capable of navigating complex challenges and spearheading technological advancements in software engineering.

FIGURE 1: Speaker of the event and HOD

The session was hosted by Ishaan S, 5th semester AI. The day started with a Welcome address to our guest, all 5th year students of CSE, AIML, CSD, ISE, CD 5 with a strength of 500+ and faculties of the departments. The guest was introduced to the gathering. The speaker took over the stage and started the guest lecture.

During the seminar hosted by the Computer Science department and Information Science department, Mr. Koteswararao Ravipati delivered a transformative talk that ignited a renewed sense of purpose and ambition among all attendees. The event empowered students to carve their own career paths confidently, emphasizing the importance of continuous skill enhancement and adaptability in today's rapidly evolving professional landscape.

Through an in-depth exploration of technologies like Hadoop, Splunk, and MapReduce, participants gained valuable insights into the realm of big data analytics and business intelligence, setting the stage for their future endeavours. Inspired by the discussion on cutting-edge technologies, students left the event with newfound determination to excel in the field of data science and analytics. The seminar acted as a catalyst for personal and professional growth, fuelling a passion for excellence and innovation within the next generation of engineers. In essence, the seminar transcended mere information dissemination, leaving a lasting impact on all attendees.

The talk delved into the intricate workings of Hadoop, Splunk, and MapReduce, highlighting their pivotal roles in processing and analysing vast amounts of data. Participants gained a deeper understanding of how these tools facilitate efficient data management, extraction of valuable insights, and optimization of business processes. Through practical examples and case studies, attendees learned to harness the power of these technologies to address real-world challenges and drive organizational success.

FIGURE 2: Mr. Ishaan S -AIML Dept hosting an event

The discussion underscored the importance of staying abreast of technological advancements in the field of big data analytics, emphasizing the need for continuous learning and skill development. Participants were encouraged to explore further opportunities to deepen their knowledge and expertise in Hadoop, Splunk, MapReduce, and other emerging technologies, positioning themselves as valuable assets in an increasingly data-driven world.

Key Takeaways:

- Understand the Role of Technology: Gain a comprehensive understanding of how technologies like Hadoop, Splunk, and MapReduce contribute to data processing and analysis.
- Embrace Continuous Learning: Stay updated with the latest developments in big data analytics and invest in continuous skill enhancement to remain competitive in the field.
- Apply Theory to Practice: Translate theoretical knowledge into practical applications by exploring real-world use cases and implementing solutions using Hadoop, Splunk, MapReduce, and other relevant tools.
- Collaborate and Innovate: Foster a collaborative mindset and embrace innovation by actively engaging with peers and industry professionals to explore new possibilities in data analytics.
- Drive Business Impact: Recognize the transformative potential of big data analytics in driving business growth and innovation, and actively seek opportunities to leverage technology for organizational success.

FIGURE 3: Students are attentive and learning from the session.

Mr. Koteswararao Ravipati delved into crucial strategies for thriving in today's data-driven job market. His presentation highlighted the importance of mastering big data technologies such as Splunk, MapReduce, and Hadoop, while also emphasizing practical skill development and lifelong learning.

Navigating Big Data Technologies

Mr. Ravipati stressed the significance of understanding and harnessing big data technologies like Splunk, MapReduce, and Hadoop in today's data-centric landscape. He emphasized the need for professionals to not only possess theoretical knowledge but also practical experience in implementing these technologies to extract meaningful insights from large datasets. Mr. Ravipati highlighted the importance of staying updated with the latest advancements in big data tools and techniques to remain competitive in the field.

Leveraging Splunk's Capabilities

Maximizing the potential of Splunk goes beyond surface-level usage. Mr. Ravipati encouraged attendees to delve deeper into Splunk's functionalities, including its powerful search and analytics capabilities, real-time monitoring, and visualization tools. He emphasized the importance of mastering Splunk's query language to effectively analyse and interpret data, uncovering valuable insights for business decision-making. Additionally, Mr. Ravipati highlighted the importance of leveraging Splunk's machine learning capabilities to automate repetitive tasks and enhance data-driven decision-making processes.

FIGURE 4: Mr. Koteswararao Ravipati addressing the students during the session

Exploring MapReduce and Hadoop

Mr. Ravipati delved into the fundamentals of MapReduce and Hadoop, highlighting their roles in distributed data processing and storage. He emphasized the importance of understanding MapReduce's programming model and its applications in processing large-scale datasets efficiently. Similarly, Mr. Ravipati discussed Hadoop's distributed file system (HDFS) and its scalability features, enabling organizations to store and process massive volumes of data across clusters of commodity hardware. He underscored the significance of mastering MapReduce and Hadoop for professionals seeking to excel in the field of big data analytics.

Practical Steps for Skill Development

Mr. Ravipati encouraged attendees to take proactive steps in enhancing their skills in big data technologies. Beyond theoretical knowledge, he emphasized the importance of hands-on experience through projects, internships, or industry collaborations. Mr. Ravipati advised individuals to participate in online courses, workshops, and hackathons focused on big data analytics, providing practical exposure to tools like Splunk, MapReduce, and Hadoop. Additionally, he stressed the importance of building a strong professional network within the data science community to stay updated with industry trends and opportunities for growth.

Cultivating a Growth Mindset

While acknowledging the breadth of skills required in the field of big data analytics, Mr. Ravipati encouraged attendees to consider specializing in specific areas such as data engineering, data visualization, or machine learning. He highlighted the importance of adopting a growth mindset, which involves embracing challenges as opportunities for learning and development. Mr. Ravipati emphasized the role of continuous learning through online resources, mentorship, and peer collaboration in staying ahead in the rapidly evolving field of big data analytics.

OUTCOME of the Event:

Under the guidance of Mr. Koteswararao Ravipati, the event proved transformative, instilling attendees with practical insights into mastering big data technologies such as Splunk, MapReduce, and Hadoop. Participants left empowered with a deeper understanding of industry trends and a renewed commitment to continuous learning. Equipped with invaluable knowledge and strategies, they are poised to navigate the evolving landscape of data-driven careers with confidence and proficiency. The event served as a catalyst for personal and professional growth, igniting a passion for excellence and innovation among the next generation of data scientists and analysts, paving the

Prof. . K.L. SUJITHA   and Prof. Amit Kumar
Co-ordinator of the Event
Assistant Professor
Computer Science and Engineering.