

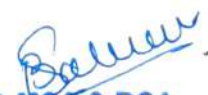


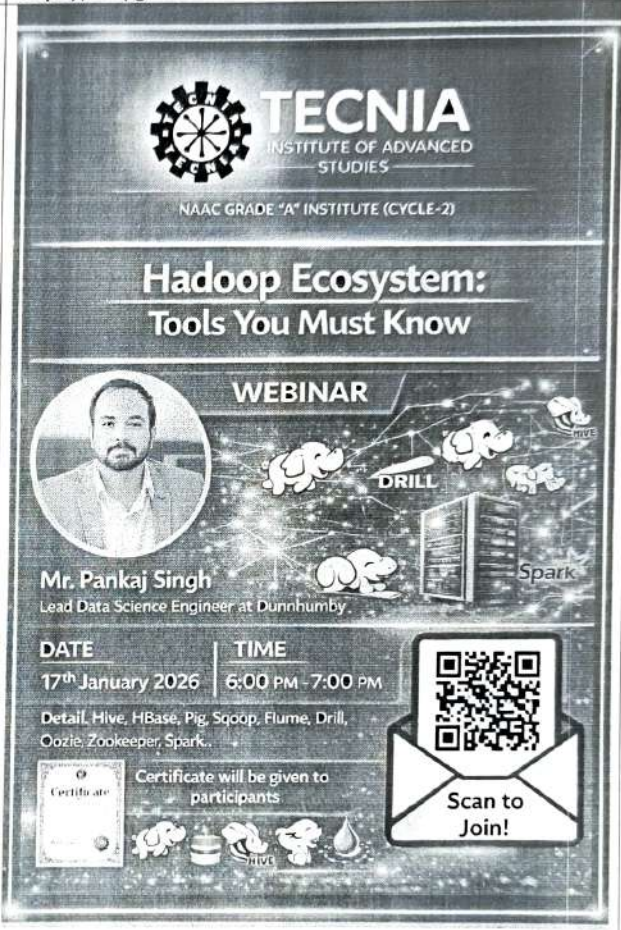
TECNIA INSTITUTE OF ADVANCED STUDIES


NAAC GRADE "A" INSTITUTE (CYCLE-2)
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Affiliated to G.G.S.I.P. University & Recognized Under Sec. 2(f) of UGC Act 1956.
INSTITUTIONAL AREA, MADHUBAN CHOWK, ROHINI, DELHI-110085

Report on "Hadoop Ecosystem: Tool You Must Know (Webinar)"

Club	DATA SCIENCE CLUB
Title of Activity*	Webinar
Event – Awareness/Outreach	Awareness
Program Theme*	Foundations of Data Engineering
In association with (Dept./ Centre/ Cells/Clubs/ Committees Name)	TECHNICAL CLUB
Objectives	<p>Assess Conceptual Understanding To evaluate students' understanding of core data science concepts such as data types, statistics, and analytics.</p> <p>Test Practical Knowledge To measure learners' ability to apply data science techniques in real-world problem-solving scenarios.</p> <p>Enhance Analytical Thinking To promote logical reasoning and analytical skills through data-driven questions.</p> <p>Evaluate Tool Awareness To assess familiarity with commonly used data science tools, languages, and libraries such as Python, R, and SQL.</p> <p>Reinforce Learning Outcomes To strengthen key concepts learned during instruction through interactive assessment.</p>
Mulya Pravah	<p>Assess Data-to-Decision Knowledge Promote Value-Oriented Analytics Thinking Evaluate Conceptual Clarity of Data Pipelines Link Data Science with Real-World Impact</p>
UNSDG	<p>SDG 4: Quality Education SDG 8: Decent Work and Economic Growth SDG 9: Industry, Innovation and Infrastructure</p>
Outcomes with its impact	<p>Outcomes</p> <ul style="list-style-type: none">• Understanding Data engineering Learning Fundamentals.


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	<ul style="list-style-type: none"> • Gain awareness of data processing challenges. • Learn how to build and manage data pipelines. • Understand data storage, warehousing, modelling
External Expert	Mr. Pankaj Singh (Data Engineer at Dunnhumby)
Internal Expert/Faculty	MS RAJNI & MS GARIMA SAINI
Date	17-JAN- 2026
Time	06:00 AM onwards
Venue	Tecnia Institute of Advanced Studies
Social media link	https://tiaspg.tecniain
Poster/Flyer/Notice*	 <p>The poster is for a webinar titled "Hadoop Ecosystem: Tools You Must Know". It features the Tecnia Institute of Advanced Studies logo at the top, which is a gear with "TECNIA" written inside. Below the logo, it says "INSTITUTE OF ADVANCED STUDIES" and "NAAC GRADE 'A' INSTITUTE (CYCLE-2)". The main title of the webinar is "Hadoop Ecosystem: Tools You Must Know". Below the title, it says "WEBINAR". There is a circular portrait of Mr. Pankaj Singh, who is the Lead Data Science Engineer at Dunnhumby. The poster also features logos for Hadoop, Drill, and Spark. At the bottom, there is a QR code with the text "Scan to Join!" and a small image of a certificate with the text "Certificate will be given to participants".</p>
No. of Students* (only no. to be written, list in excel or word should be maintain at department level as proof for any further requirement)	60
No. of Faculty* (only no. to be written , list in excel or word should be maintain at department level as proof for any further requirement)	15
No. of External Participants (students + faculty) [write NA if not applicable]	1


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Geotag Photographs(with Caption)*



Caption: webinar on Data Engineering

Report: Description in (min 250 to max 800 words)*

A webinar on **“Hadoop Ecosystem”** was organized with the objective of enhancing participants’ understanding of Big Data technologies and their growing importance in today’s data-driven world. The session aimed to introduce learners to the fundamental concepts of Big Data and the role of the Hadoop ecosystem in storing, processing, and analyzing large volumes of data efficiently.

The webinar began with an overview of Big Data, highlighting its key characteristics such as volume, velocity, and variety. The speaker explained the limitations of traditional data processing systems when dealing with massive and complex datasets, thereby establishing the need for distributed computing frameworks. This set the context for introducing **Apache Hadoop** as a powerful and scalable solution for Big Data challenges.

The core part of the session focused on the architecture of Hadoop and its ecosystem components. The speaker elaborated on the role of the Hadoop Distributed File System (HDFS) in providing reliable and fault-tolerant data storage by distributing data across multiple nodes. The functioning of

Rajeev
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	<p>YARN (Yet Another Resource Negotiator) was explained in detail, emphasizing how it manages system resources and schedules tasks efficiently across the cluster. The MapReduce programming model was also discussed, demonstrating how large datasets can be processed in parallel to achieve high performance.</p> <p>In addition to the core components, the webinar covered various tools that form an integral part of the Hadoop ecosystem. Tools such as Hive and Pig were introduced as user-friendly platforms that allow data analysis using high-level query languages, reducing the complexity of writing traditional MapReduce programs. The session also included an introduction to HBase, a NoSQL database designed for real-time data access, and data ingestion tools like Sqoop and Flume, which are used to transfer data from relational databases and streaming sources into the Hadoop framework.</p> <p>The speaker supported the theoretical explanations with real-world use cases from industries such as banking, healthcare, retail, and e-commerce. These examples helped participants understand how organizations use Hadoop to analyze customer behavior, detect fraud, manage large-scale transactions, and make data-driven decisions. Career opportunities in the field of Big Data and the skills required to work with Hadoop technologies were also discussed, motivating students to explore this domain further.</p> <p>The webinar concluded with an interactive question-and-answer session, during which participants actively engaged with the speaker to clarify doubts related to Hadoop tools, project implementation, and future trends in Big Data analytics. Overall, the webinar on "Hadoop Ecosystem" was informative and insightful, providing participants with a strong conceptual foundation and encouraging them to pursue further learning and practical exposure in Big Data technologies.</p>
Attendance Sheet*	Attached at the end of Report
For Office Use: Notification No.	
Name and Signature of Event Coordinator/Nodal Club Officer/Club Incharge(with stamp)	<p>Ms. Rajni DATA SCIENCE CLUB</p> <p>Mr. Indraprakash Srivastav TECHNICAL CLUB</p>
List of Participants Attached(Separate Page)	Attached


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S.No.	Enrollment no.	Name of Participants	Program & Sem
1	00121302025	MOKSH UMRAN	BCA
2	00221302025	KABEER DAWAR	BCA
3	00321302025	DISHI AGGARWAL	BCA
4	00421302025	PARTH SHARMA	BCA
5	00521302025	HEENA AHUJA	BCA
6	00621302025	HAYA AKHTAR	BCA
7	00721302025	SHREYAS PATHAK	BCA
8	00821302025	ANKIT PRASAD	BCA
9	00921302025	DHRUV VERMA	BCA
10	01021302025	JATIN GUPTA	BCA
11	01121302025	ANJALI TIWARI	BCA
12	01221302025	HIMANSHU	BCA
13	01321302025	SABOORI VIJ	BCA
14	01421302025	RIDHIMA AGARWAL	BCA
15	01521302025	DHANANJAY KUKREJA	BCA
16	01621302025	ADITYA JAIN	BCA
17	01721302025	MANSIFAT SINGH CHADHA	BCA
18	01821302025	GEETIKA RJOKHARIYA	BCA
19	01921302025	UTTKARSH GROVER	BCA
20	02021302025	JASMEET KAUR	BCA
21	02121302025	AAYUSH BALUNI	BCA
22	02221302025	AARYAN BALUNI	BCA
23	02321302025	VIKALP BHATIA	BCA
24	02421302025	ESHAAN KAPOOR	BCA
25	02521302025	SUVHADEEP DHARA	BCA
26	02621302025	MRIGNA NAGPAL	BCA
27	02721302025	JAI PRAKASH VERMA	BCA
28	02821302025	PRATYAKSH	BCA
29	02921302025	LAKSHIT RATTAN	BCA
30	03021302025	NISHIKA	BCA
31	03121302025	KESHAV SINGHAL	BCA
32	03221302025	ADITYA	BCA
33	03321302025	SK SAJED ALI	BCA
34	03421302025	AYUSH KUMAR SRIVASTAVA	BCA
35	03521302025	SOMYA PAHUJA	BCA
36	03621302025	TUSHAR DAHIYA	BCA
37	03721302025	DEEPAK SINGH	BCA
38	03821302025	ANANT GAUR	BCA



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39	03921302025	KETNA MALHOTRA	BCA
40	04021302025	VISHESH KUMAR	BCA
41	04121302025	TEJASVI VAID	BCA
42	04221302025	AKSHARA MAHESHWARI	BCA
43	04321302025	KRISHNA BIST	BCA
44	04421302025	AKSHAY CHAWLA	BCA
45	04521302025	VAIBHAV DAWAR	BCA
46	04621302025	AMAN KUMAR JHA	BCA
47	04721302025	ATISHAY JAIN	BCA
48	04821302025	MAYANK GULATI	BCA
49	04921302025	DHAANYA SETHI	BCA
50	05021302025	ABHINAV PAYAL	BCA
51	05121302025	KUSH KHANEJA	BCA
52	05221302025	MANNAT CHAUHAN	BCA
53	05321302025	BHAVINI ARORA	BCA
54	05421302025	AYUSHMAN JHA	BCA
55	05521302025	ADITYA TIWARI	BCA
56	05621302025	CHIRAG	BCA
57	05721302025	VEDANSH BANSAL	BCA
58	05821302025	PIYUSH ROY	BCA
59	05921302025	ADITYA SHARMA	BCA
60	06021302025	ASHISH KUMAR SAINI	BCA

Ms Rajni

Data Science Club (DICT)

Name and Signature of Event Coordinator/Nodal Club Officer/Club Incharge(with stamp)


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