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Microsoft Fabrics Workshop

The department of **Computer Science and Engineering** organised a **Workshop** titled **Microsoft Fabric and Data Analytics using Microsoft Fabric Tools** on **January 23–24, 2026** at **10:00 am** in **Seminar Hall 2**.

The workshop was formally inaugurated with an introduction of the resource person, Mr Santhosh Avalamurthy, followed by a bouquet presentation by the Dean of Computer Science, Dr Salim A., and a prayer song. The workshop featured interactive technical sessions where students were introduced to Microsoft Fabric concepts and actively engaged in hands-on project development under the guidance of the resource person. Students demonstrated enthusiastic participation throughout the sessions, and the workshop concluded with a quiz that reinforced learning and assessed their understanding, making the event informative, interactive, and impactful.

Objectives of the Event

- To introduce students to Microsoft Fabric as a unified analytics and data platform
- To familiarise students with modern data engineering and data analytics concepts such as data lakes, data warehouses, and ETL processes
- To provide hands-on experience in creating and managing workspaces, Lakehouses, Warehouses, Pipelines, and Dataflows in Microsoft Fabric
- To help students understand end-to-end data workflows, from data ingestion to transformation and preparation for analytics
- To expose students to industry-relevant tools and practices that enhance employability and practical skills

Event Overview

The workshop commenced with a formal inauguration session. The session started with an introduction of the resource person, Mr Santhosh Avalamurthy followed by a warm welcome and presentation of a bouquet by the Dean of Computer Science, Dr Salim A. This was followed by a prayer song.

Figure 1: Dean of Computer Science, Dr Salim A., presenting a bouquet to the resource person Mr Santhosh Avalamurthy

Following the inauguration, the technical sessions began with a brief introduction to Microsoft Fabric, highlighting its role as a unified analytics platform. The speaker explained how Microsoft Fabric is more beneficial compared to traditional standalone platforms and tools due to its integrated architecture and seamless data workflow capabilities.

Figure 2: Mr Santhosh Avalamurthy's Session on "Introduction to Microsoft Fabrics"

Key Concepts Explained

The following important terms and components of Microsoft Fabric were explained in detail:

- OneLake: A centralised data storage layer for the entire organisation.
- Lakehouse: A flexible storage architecture supporting both structured and unstructured data.
- Data Factory: Used for ingesting data from various sources.
- ETL (Extract–Transform–Load): The process of extracting data, transforming it as required, and loading it into storage systems.
- Dataflow Gen2: Used for cleaning, transforming, and preparing data.
- Semantic Model: Provides meaningful structure and context to raw data for analytics and reporting.

Figure 3: Students actively engaged in hands-on project development using Microsoft Fabric

Project Construction and Hands-on Activities

Students were guided step-by-step through a practical project using the Microsoft Fabric application. The activities carried out are summarised below:

1. A new Workspace was created in the Microsoft Fabric app.
2. Items such as Lakehouse were added to the workspace, and the dataset folders provided during the workshop were uploaded.
3. A Warehouse was created, and data from the Lakehouse was copied into the warehouse.
4. A new Pipeline was added, and Copy Data activities were created for the datasets (Orders, Products, and Users). The pipeline was then saved, validated, and executed.
5. A Dataflow Gen2 item was created by selecting data sources from the warehouse. The data was loaded, and necessary transformations were performed, introducing students to core Power BI concepts related to data transformation and preparation.

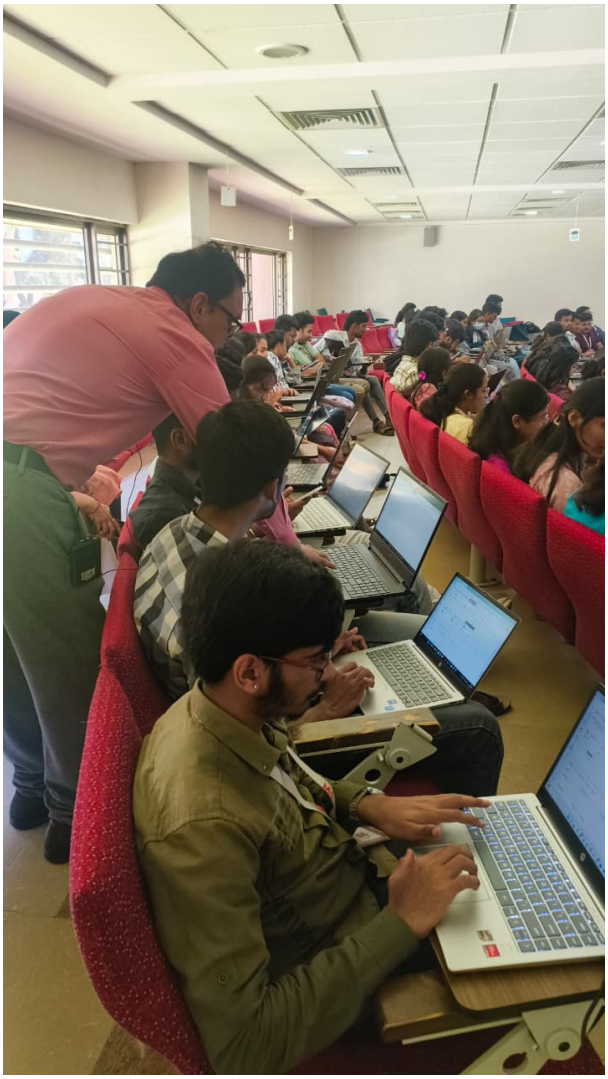

Figure 4: Mr Santhosh Avalamurthy assisting students in project development using Microsoft Fabric

Assessment Activity

At the end of the workshop, a quiz was conducted to assess students' understanding of the concepts covered during the sessions. This helped reinforce learning outcomes and encouraged active participation.

Outcomes and Impact

The Microsoft Fabric Workshop resulted in several positive outcomes and had a significant academic and practical impact on the participating students:

- Students gained a clear understanding of Microsoft Fabric as a unified data analytics and engineering platform.
- Participants developed hands-on experience in working with core components such as OneLake, Lakehouse, Warehouse, Pipelines, and Dataflow Gen2.
- Students were able to understand and implement end-to-end data workflows, including data ingestion, transformation, and preparation for analytics.
- The workshop enhanced students' familiarity with industry-relevant tools and concepts aligned with current data engineering and analytics practices.
- Interactive sessions and real-time project work improved students' problem-solving skills and confidence in handling practical data-related tasks.
- The quiz conducted at the end of the workshop helped reinforce learning and assess conceptual clarity among students.

Overall, the workshop bridged the gap between theoretical knowledge and practical application, motivating students to explore advanced topics in data analytics and cloud-based platforms.

Conclusions

The Microsoft Fabric Workshop successfully provided students with both theoretical knowledge and practical exposure to modern data analytics tools. The hands-on approach enhanced students' understanding of end-to-end data workflows, making the workshop informative, engaging, and beneficial for their academic and professional development.

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