

A REPORT OF WORKSHOP

“Data Analytics Using Python”

Organized by the Department of Computer Science, Aryabhata College
14th October 2024, 10:30 AM – 01:30 PM

Under the aegis of IQAC
DEPARTMENT of COMPUTER SCIENCE
of
ARYABHATTA COLLEGE
In Association with SkillCircle

PRESENTS

A One Day Workshop on
**DATA ANALYTICS
USING PYTHON**

Speaker: **Rohit Pahwa**

10:30 am - 1:30 pm 14th October, Monday Computer Lab 2

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Abstract

The Department of Computer Science Aryabhata College, in collaboration with SkillCircle, organized a workshop on 14th October 2024, titled "Data Analytics Using Python." The session was led by Mr. Rohit Pahwa, an experienced data scientist and analyst. The workshop was designed to introduce students to essential concepts in data analysis using Python and related tools. The hands-on nature of the event aimed to provide participants with a solid understanding of Python programming, data manipulation, and visualization, helping them navigate through the field of data analytics.

Under the supervision of Dr. Deepak Sharma, TIC of the Department of Computer Science with the organizing team (Dr. Ranjan Kumar, Dr. Piti Jagwani, Dr. Sonal Linda, Ms. Mona Adlakha, Ms. Neha Kumari, Mr. Gagandeep Sharma, Mr. Hemant Kumar, Ms. Upasana Singh) held an engaging workshop open to students from all three years. The session took place in Computer Lab 2 and offered hands-on learning in Python programming, with a special focus on libraries like pandas, NumPy, and Matplotlib for data analysis and visualization. The anchoring was done by Student Representatives Pratyush Aron and Riddhi Chawla.

Objective

The objective of the workshop was to introduce participants to Python for data analysis and give them a clear roadmap for developing their skills in this field. The session also covered data visualization techniques using libraries such as Matplotlib and Seaborn, providing students with practical skills to interpret and represent data effectively. Additionally, participants were introduced to key concepts such as data cleaning, exploratory data analysis (EDA), and the job opportunities available in the rapidly growing field of data science.

The workshop focused on equipping students with real-world skills in data analytics, particularly Python, and provided insights into a structured roadmap for learning data analysis. The session covered practical applications, allowing students to work on datasets and understand the tools used in the field. Although the initial agenda included tools like Tableau and Power BI, the workshop ultimately focused solely on Python and its data libraries to give participants a deep dive into one platform.

About the Speaker

Mr. Rohit Pahwa is a seasoned data scientist and analyst, with expertise in Python, data visualization, and machine learning. He holds significant experience in training professionals and students in data science tools and techniques. Having worked with SkillCircle and as a freelance data analyst, Mr. Pahwa brings both technical and industry experience. His projects have involved data collection, model building, and creating dashboards for business decision-making

Summary

The workshop covered several important topics in data analysis, including:

- **Introduction to Python for Data Analysis:** Mr. Pahwa introduced the students to Python's use in data analysis, with hands-on training in libraries like pandas (for data manipulation), NumPy (for numerical operations), and Matplotlib (for data visualization). These libraries were essential for understanding how to clean, process, and visualize data.
- **Roadmap for Learning Data Analytics:** Mr. Pahwa provided a clear learning path for students interested in pursuing data analytics. This roadmap included mastering Python and its data libraries, learning database management systems (such as MySQL), and exploring machine learning models to enhance their skill set further.
- **Practical Applications:** Throughout the workshop, students were given datasets to work on, which allowed them to apply the concepts they were learning in real-time. The hands-on sessions helped them understand how to analyze and interpret data using Python. This approach bridged the gap between theoretical knowledge and practical application, encouraging students to experiment with the tools provided.
- **Job Opportunities in Data Science:** Mr. Pahwa also discussed the career prospects in data science, emphasizing the growing demand for data analysts and scientists in various industries. He highlighted the importance of building a strong portfolio with projects that showcase one's skills in data analysis, as this is crucial for securing roles in the field.

The workshop was interactive, with students participating in exercises and asking questions throughout the session. Mr. Pahwa addressed various queries, offering personalized advice on improving technical skills and preparing for careers in data science.

The felicitation ceremony was conducted by Ms. Mona Adlakha, and the vote of thanks was delivered by Gagandeep Sir, who commended both the guest speaker and the students for their active participation.

Conclusion

The "Data Analytics Using Python" workshop was a resounding success, providing students with both theoretical knowledge and practical experience in data analytics. The session focused on key tools and techniques that are essential for a career in data science. By the end of the workshop, participants were familiar with the basics of Python for data analysis and had gained insight into the roadmap for further learning and career opportunities in this field. The session encouraged students to apply these newfound skills in their academic projects and future endeavors.



