



J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

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Bhaskar Nagar, Yenkapally (V), Moinabad (M), P.O. Himayathnagar, R.R. District, Hyderabad-5000075.

Department of Information Technology

Hands-on Workshop

“Advanced Python Data Structures and Algorithms”

Date: 17/02/2024

Venue: Room Number 126 & 127

B.Tech – IV Year – II Sem

A.Y: 2023 – 2024

Coordinators

Mr. V. Kirshna Reddy, Assistant Professor

Convener

Dr. Ramesh Babu

Associate Professor & Head of the Department

Circular



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DEPARTMENT OF INFORMATION TECHNOLOGY

DATE: 13 - 02 - 2024

CIRCULAR

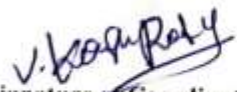
This is to inform all II Year students that the Department of Information Technology is organizing a One - Day workshop on "Advanced Python Data Structures and Algorithms" on 17-02-2024 (Wednesday). The Expert Lecture will be conducted in Lab Number 126 & Lab Number 127 during the following sessions.

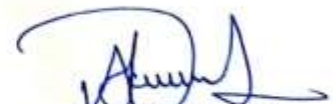
Morning Session: 10.00 AM - 12.30 PM

Afternoon Session: 1.30 PM - 4.00 PM

Dr. Pream Kumar will be the resource person for the said workshop, and is aimed at enhancing students' understanding of Advanced Python Data Structures and Algorithms.

All Students are requested to attend and make the event a grand success.


Signature of Coordinator


Signature of HOD

PREAMBLE

In today's fast-paced technological landscape, mastering the intricacies of data structures and algorithms is essential for developing efficient, scalable, and high-performance software solutions. As Python continues to gain popularity for its simplicity and versatility, understanding its advanced data structures and algorithmic techniques becomes a critical asset for developers, data scientists, and engineers alike.

The Hands-on Workshop on Advanced Python Data Structures and Algorithms is designed to bridge the gap between theoretical knowledge and practical application. Through interactive coding sessions, real-world problem-solving, and expert guidance, this workshop empowers participants to deepen their algorithmic thinking, optimize code performance, and tackle complex programming challenges with confidence.

This initiative reflects our commitment to fostering technical excellence and continuous learning in the programming community, ensuring that participants not only gain advanced skills but also develop a mindset geared toward innovation and problem-solving.

A Glimpse of the Event

The Hands-on Workshop on Advanced Python Data Structures and Algorithms provided an engaging and immersive learning experience for participants eager to elevate their programming skills. Held over the course of [insert duration], the workshop was structured to combine in-depth theoretical concepts with real-time coding practice, offering a balanced and practical approach to advanced problem-solving in Python.

Led by experienced instructors and industry professionals, the sessions covered complex data structures such as heaps, trees, graphs, hash maps, and linked lists, along with algorithmic strategies including recursion, dynamic programming, backtracking, and greedy algorithms. Participants were guided through the implementation of these concepts using Python, with a focus on writing clean, efficient, and optimized code.

Interactive problem-solving exercises, live coding challenges, and group activities fostered active participation and collaboration. Attendees had the opportunity to work on mini-projects and algorithmic puzzles that simulated real-world programming scenarios, enhancing both their logical thinking and hands-on experience.

The event was well-received, with participants appreciating the workshop's depth, clarity, and practical relevance. It served as a strong foundation for those preparing for coding interviews, competitive programming, or advancing in data-driven career paths.

Event Poster/Banner



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Bhaskar Nagar, Yenkapally(V), Moinabad(M), P.O. Himayathnagar, R.R. District, Hyderabad-5000075.

Department of Information Technology
One - Day workshop on

"Advanced Python Data Structures and Algorithms"
17th February 2024, 9:30 AM to 4.00 PM

Venue : Lab Number 126 & Lab Number 127



Dr. Pooja Pram Kumar
Associate Professor
Department of Computer and Engineering
JBIET

Resource Person Profile



Pooja Prem Kumar

Professor, Department of Computer Science and Engineering

JB Group of institutions (JB IET)

Dr. Pooja Prem Kumar is a dedicated academic and researcher with extensive experience in Computer Science and Engineering. As a Professor at JB Institute of Engineering and Technology (JB IET), part of the prestigious JB Group of Institutions, she has been actively involved in teaching, mentoring, and curriculum development. Her academic interests include system programming, operating systems, computer networks, and emerging technologies like AI and cybersecurity. She brings a passion for shaping the next generation of engineers through innovative pedagogy and real-world application of theoretical concepts. With a commitment to academic excellence, she contributes to both institutional growth and student success.

Event Outcome

The Hands-on Workshop on Advanced Python Data Structures and Algorithms concluded successfully, achieving its primary objective of strengthening participants' practical understanding and problem-solving skills in Python. The workshop attracted a diverse group of learners, including university students, early-career developers, and tech enthusiasts, all eager to deepen their algorithmic knowledge.

Key outcomes of the event included:

- ✓ Improved Competency: Participants gained hands-on experience with advanced data structures like graphs, trees, heaps, and hash tables, as well as algorithmic techniques such as recursion, dynamic programming, and backtracking.
- ✓ Practical Coding Skills: Through live coding exercises and real-world challenges, attendees enhanced their ability to write clean, efficient Python code.
- ✓ Interview Readiness: Many participants reported increased confidence in tackling coding interview problems and technical assessments.
- ✓ Collaborative Learning: Group discussions and pair programming activities encouraged teamwork and peer-to-peer learning.
- ✓ Positive Feedback: Feedback collected at the end of the workshop reflected high satisfaction with the content, delivery, and hands-on approach.

Overall, the workshop successfully bridged the gap between theory and practice, equipping participants with the tools and techniques necessary to solve complex programming problems and continue their journey in software development with greater confidence and clarity.

Photos of the Event



Fig 1: Resource person Dr. Prem Kumar addressing the Students



Fig 2: Students assembled in the Class for the Guest Lecture



Fig 3: Faculty Coordinator addressing the Resource Person

Attendance Sheet

Date: 14/02/2024

Hands-on workshop: Advanced
Python Data structures and
Algorithms

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IV B.Tech- II Sem IT

Sl. No.	Roll No.	Name of the Student	Signature
1	20671A1201	A. SAI KIRAN	Kiran
2	20671A1202	AKKALA UMA MAHESWARA REDDY	Reddy
3	20671A1203	ADDU SAI NIKHIL	Sai Nikh
4	20671A1204	ADEPU MANASWINI	Manasi
5	20671A1205	ADUMALA HARSHITHA	Harshitha
6	20671A1206	AKULA SHARANYA	Sharanya
7	20671A1207	ATHUKURI SAI KIRAN	Kiran
8	20671A1208	RITHVIK AARYAN BANDI	Rithvik
9	20671A1209	BANDEWAR SHAANVITHA	Durga
10	20671A1210	BANOTHU DURGA	Durga
11	20671A1211	BATTINI SAKETH	Saketh
12	20671A1212	BEJJARAPU BHAVANI	Bhavani
13	20671A1213	BUSANIWAR NIMISHA	Nimisha
14	20671A1214	CHILLARA SREEKARA PADMAN	Sreekar
15	20671A1215	CHALLA DEEPTHI	Deepthi
16	20671A1216	DUGGU JHANSI	Jhansi
17	20671A1217	DUNDIGALA BHARGAVI	Bhargavi
18	20671A1218	DUVVALA ADHARSH	Adharsh
19	20671A1219	ETIKALA SRAVANTHI	Sravanthi
20	20671A1220	GAJRE CHANDRAKANTH	Chandrakanth
21	20671A1221	GANDLA SUMANTH	Sumanth
22	20671A1222	GORJAM HARSHINI	Harshini
23	20671A1223	K ARUN KUMAR	Arun
24	20671A1224	KASUKURTHY MAHENDRA	Sukurthy
25	20671A1225	MASIREDDY VARUN REDDY	Varun
26	20671A1226	MALIPATEL SHRADDHA	Shraddha
27	20671A1227	MD SHOAIB	Shoaib
28	20671A1228	MOHAMMED MUDASSIR HUSSAIN	Hussain
29	20671A1229	NEELI SHRENIKA	Shrenika
30	20671A1230	NIMMALOLLA PRASUNA	Prasuna
31	20671A1231	PALLEPATI MANIKANTA	Manikanta
32	20671A1232	PARSHAPU SRILEKHA	Srilekha
33	20671A1233	PENDEM NIKHIL	Nikhil

34	20671A1234	POTTOLLA VAMSHI KRISHNA	Vamshi
35	20671A1235	PUSULURU KIRANMAI	Kiranmai
36	20671A1236	RATHLAVATH VISHAL NAIK	Vishal
37	20671A1237	SEERLA RAKESH	Rakesh
38	20671A1238	YERRA HARINI	Harini
39	20671A1239	SHAIK TAHER HUSSAIN	Taher
40	20671A1240	SHIVNITWAR RAHUL	Rahul
41	20671A1241	SIDDARTHA KOMMU	Siddh
42	20671A1242	SUDAM RACHANA	Rachana
43	20671A1243	T MEGHANA	Megha
44	20671A1244	THURPATI MUKESH	Mukesh
45	20671A1245	TOORPU JITENDHAR REDDY	Jithendhar
46	20671A1246	THALLOJU PRANEETH KUMAR	Praneeth
47	20671A1247	BAINAGARI SAI	Sai
48	21675A1201	GUMMADI DEEPAK	Deepak
49	21675A1202	BODA PREMSINGH	Prem Singh
50	21675A1203	RATHOD VENKATESH	Venky
51	21675A1204	ANANTHA KISHORE REDDY	Ananth
52	21675A1205	JANGA SRIDHAR	Sridhar
53	21675A1206	GAJULA SAICHARAN	Saicharan
54	21675A1207	UPPULA VISHWA TEJA PATEL	Teja


HEAD OF DEPARTMENT
 Information Technology
 J.B. Institute of Engineering & Technology
 Yerrapally (V), Medak Road (M), TS-500075.