



DAYANANDA SAGAR
UNIVERSITY

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Devarakaggalahalli, Harohalli, Kanakapura Road,
Ramanagara Dt., Bengaluru – 562 112



Tech Talk

on

"Navigating the Linux Landscape: Practical Applications,
Emerging Trends, and Career Insights in Programming and
Scripting"

1. INTRODUCTION

Department of the Computer Science & Engineering in association with Ganakanveshana Club had Organized a Tech Talk on "**Navigating the Linux Landscape: Practical Applications, Emerging Trends, and Career Insights in Programming and Scripting**" on 2nd December 2023 in Online mode. The Tech Talk was delivered by Industry Expert, **Hariharan Venkitachalam, Principle Architect at Kyndryl solutions**. The faculty coordinators were Dr. Basavaraj N Hiremath, Dr. Savitha Hiremath, Prof. Shwetha G S and Prof. Nandini K.

Dr. Girisha G S, Chairperson, Department of CSE welcomed Mr **Hariharan Venkitachalam**, Resource person of the event, Department of CSE, Students and Faculty Members of the Department of CSE. Dr. Basavaraj N Hiremath, Professor, Department of CSE introduced Resource Person Mr. **Hariharan Venkitachalam** to the Participants of the Tech talk.

Hariharan Venkitachalam (Hari) is working as a Principal Architect at Kyndryl Solutions with roles including Cloud Architect and Engineering leader. Hari has an overall 25+ years of IT industry experience in architecting solutions, product development, DevSecOps automations, CloudOps principles and practices using a mix of native cloud and cloud agnostic solutions. Have spent 15 years on product development developing online transaction processing systems predominantly in C/C++, thriving

within the Linux ecosystem. Recognized as a Master Inventor at Kyndryl, Hari's innovation has garnered over 22 patents. In his spare time, Hari's mantra is simple: code, eat, sleep, and code.

The objective of the Tech Talk was:

- Sharing practical insights and examples of how Linux programming and scripting are used in real-world industry scenarios.
- Discuss current trends, emerging technologies, and best practices in Linux programming and scripting.
- Showcasing of real projects or case studies that demonstrate the use of Linux programming and scripting.
- Introduce students to relevant tools and technologies widely used in the industry for Linux programming and scripting.
- Provide insights into potential career paths and opportunities for individuals with expertise in Linux programming and scripting.

Resource person highlighted on why Linux is the preferred environment for many developers, and scripting languages like Python, Bash, and Perl are commonly used for creating automation scripts, managing dependencies, and facilitating deployment. He also stressed on the reason for why Linux is a common choice for security-focused environments. Scripting skills are valuable for tasks like analyzing logs, implementing security measures, and responding to incidents. Mr. Hariharan gave a overview on emerging Technologies like Docker and Kubernetes have gained prominence for deploying and managing applications on Linux systems, emphasizing the need for skills in container orchestration. He answered all the participants questions and clarified student's queries.

4.ATTENDEES

The workshop included students and Faculty members from CSE department. A total of 98 students attended the tech talk in online mode and gave excellent feedback.

5.CLOSING

As an Organizing committee member Prof. Shwetha G S, thanked the management of DSI, Dean SoE, Chairman Dr. Girisha G S for all his support. She also thanked faculty coordinators and all the participants for the great support and participation leading to knowledge sharing.

Brochure :



SCHOOL OF ENGINEERING

DAYANANDA SAGAR UNIVERSITY
School of Engineering
Department of Computer Science and Engineering

Tech talk
on
Navigating the Linux Landscape:
Practical Applications, Emerging Trends, and
Career Insights in Programming and Scripting

Resource Person



HARIHARAN VENKITACHALAM
Principal Architect at Kyndryl Solutions

DATE & TIME
02/12/2023
10am-11am

Virtual Mode
<https://zoom.dsuedu.in/sec>

Registration Link
<https://forms.gle/ZgARp7H5e3qnc0at6>



ORGANIZED BY:
Ganakanyeshana Club
Department of CSE



CONVENERS
Dr. Udaya Kumar Reddy K R
Dean of SOE, DSU
Dr. Girisha G S
Chairman CSE, DSU

ORGANIZERS
Dr. Basavaraj N Hiremath,
Professor, CSE, DSU
Dr. Savitha Hiremath
Associate Professor CSE, DSU
Prof. Shwetha G S
Assistant Professor CSE, DSU
Prof. Nandini K
Assistant Professor CSE, DSU

STUDENT COORDINATOR
Kishore Kumar K
7th Sem

Photos:

Introduction

- Importance of Linux in the industry and its relevance today
- Linux Programming and Scripting
- Linux popular amongst professional developers
- Linux distributions



Primary Operating Systems Among Professional Developers



Operating System	Percentage
Windows	61%
Linux	47%
MacOS	4.4%
Other	1%



Mr. Hariharan Venkitachalam

Mr. Harisharan Venkatas...

Recording

Sign in

Use case #2: Patching as a service

- "Patching as a Service" is a comprehensive solution leveraging Ansible and Linux scripting languages to automate and streamline the patching process across diverse server environments. This service offers a unified approach to manage and apply patches seamlessly to Linux servers and other systems.



The diagram illustrates the architecture of 'Patching as a Service'. A 'Client' (represented by a person icon) interacts with a 'Client Environment' (represented by a cloud icon). The 'Client Environment' contains 'openstack' and 'Ansible'. The 'Client Environment' is connected to a 'Server Environment' (represented by a server rack icon). The 'Server Environment' contains 'Ansible' and 'Linux'. The 'Server Environment' is connected to a 'Database' (represented by a database icon). The 'Database' is connected to a 'Data Lake' (represented by a data lake icon). The 'Data Lake' is connected to a 'Data Warehouse' (represented by a data warehouse icon). The 'Data Warehouse' is connected to a 'Data Lake' (represented by a data lake icon). The 'Data Lake' is connected to a 'Data Warehouse' (represented by a data warehouse icon).

- Ansible – Bash & Python
- Centralized patch management
- Streamlines patching process
- Reduces patching cycles
- Enhances system security & stability

Audio Settings

Chat Raise Hand Q&A Show Captions

Leave

Mr. Harisharan Venkatas...

Recording

Sign in

Career Insights – Skills and Tools

- Proficiency in scripting languages (Bash, Perl, Python, Ansible).
- Experience with version control systems (Git), DevOps Automation Tools
 - Git, Docker, Kubernetes, Ansible, AWS, ELK Stack, MySQL, PostgreSQL, IDEs like VS Code, CI/CD like Jenkins, GitHub Actions
- Knowledge of containerization and virtualization tools, Cloud Platforms
- Monitoring and Logging tools
- Networking and Security, Database management
- Knowledge of Linux Distributions
- Problem solving, Troubleshooting

Audio Settings

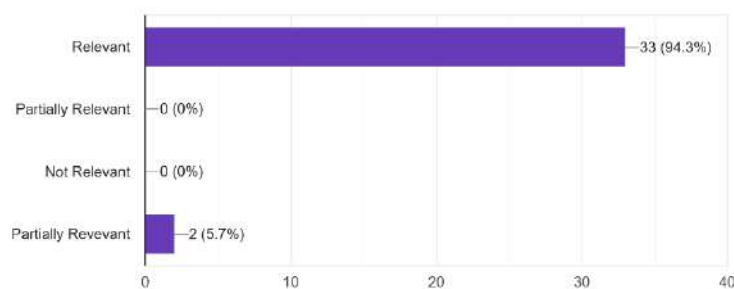
Chat Raise Hand Q&A Show Captions

Leave

Feedback :

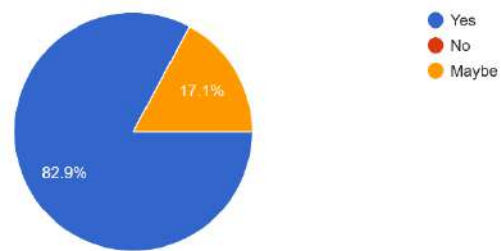
How relevant did you find the content delivered in the Tech Talk, Navigating the Linux landscape and its practical applications?

35 responses



Did the discussion on practical applications in Linux provide insights that you can apply in your work or studies?

35 responses



How would you rate the speaker's expertise in presenting Linux-related topics?

35 responses

