REPORT ON PYTHON PRAYANA AND FUSIONTECHATHON 2.O

1. PYTHON PRAYANA

ABSTRACT: The Python Prayana project is a transformative initiative that embodies the spirit of learning, community engagement, and technological empowerment. Over the span of 15 days, students embark on an inspiring journey, traversing through various local schools with a noble mission – to impart the invaluable knowledge of Python programming to eager young minds

Python Prayana was a dynamic outreach program aimed at introducing the world of programming and modern technologies to students across eight schools. This report encapsulates the objectives, methodologies, and outcomes of this initiative, shedding light on the impact it had on both students and educators. Python Prayana, an educational initiative aimed at promoting computer literacy and technology awareness, conducted a series of workshops in eight schools. Focused on teaching Python programming and related technologies, the program sought to empower students with essential skills for the digital era. This report provides a comprehensive overview of the program's objectives, methodologies, and outcomes

OBJECTIVE: The primary objective of Python Prayana was to foster a foundational understanding of programming concepts and technologies among school students. The specific goals included:

1. **Introduction to Python Programming:**

   - Provide a hands-on experience for students to learn the fundamentals of Python programming.

   - Instill problem-solving skills through coding exercises and real-world examples.

2. **Exposure to Modern Technologies:**

   - Introduce students to cutting-edge technologies such as artificial intelligence, data science, and web development.

   - Showcase the practical applications of these technologies to inspire interest and curiosity.

3. **Promote Computational Thinking:**

   - Encourage the development of logical and analytical thinking skills through coding challenges.

   - Demonstrate how computational thinking can be applied to solve diverse problems in various fields.

4. **Enhance Educators' Knowledge:**

    - Conduct workshops for teachers to empower them with the knowledge and tools to integrate Python and technology into their teaching methodologies.

    - Create a sustainable impact by ensuring educators have the resources to continue teaching these subjects.

EXPLANATION: Python Prayana adopted a structured approach to achieve its objectives. The program comprised:

1. Workshop Sessions: Engaging and interactive sessions were conducted to introduce Python programming concepts. Topics included basic syntax, data types, control structures, and simple algorithms.

2. Hands-on Coding: Participants were encouraged to practice coding through hands-on exercises, allowing them to apply theoretical knowledge and build practical skills.

3. Project Work: Students were given small projects to work on collaboratively, promoting teamwork, creativity, and practical application of programming concepts.

4. Guest Lectures: Professionals from the technology industry were invited to share their experiences and insights, providing students with a broader perspective on career opportunities in the field.

5. Open Forum Discussions: Regular open forums were conducted to address queries, share ideas, and encourage a collaborative learning environment

We visited 8 schools and taught 750 students the schools visited are:

St. Thomas School, Alangar - January 22, 2024 :

On January 22, 2024, the Python Prayana initiative visited St. Thomas School, Alangar to conduct a Python programming workshop. The session aimed to introduce students to the fundamentals of Python programming and inspire them to explore the world of technology.

The workshop commenced with an introduction to Python, emphasizing its importance in today's digital age. Participants were guided through basic syntax, data types and variables. The interactive learning approach fostered active participation and encouraged students to

experiment with coding. Overall, the workshop at St. Thomas School provided a solid foundation in Python programming and ignited curiosity among the students.

Furthermore, Python Prayana at St. Thomas School fostered a collaborative learning environment, where students collaborate on coding projects, exchange ideas, and support one another's learning journey.

This collaborative spirit extends beyond the classroom, as students engage with peers from other schools, forging connections and broadening their perspectives on the possibilities of technology. Beyond equipping students with technical skills, St. Thomas School's participation in Python Prayana underscores its commitment to holistic education. By integrating Python programming into its curriculum, the school empowers students to navigate the complexities of the digital age with confidence and creativity.

Ultimately, Python Prayana at St. Thomas School serves as a catalyst for educational innovation, inspiring students to embrace technology as a tool for empowerment and positive change. Through this initiative, St. Thomas School paves the way for a future where every student is equipped with the skills and knowledge to thrive in a rapidly evolving world.

Govt. High School, Thodar - January 23, 2024

The Python Prayana initiative continued its journey on January 23, 2024, visiting Govt. High School in Thodar. The workshop aimed to demystify Python programming and instill confidence in students to explore coding. Participants delved into basic syntax, data types, and variables, gaining hands-on experience through interactive exercises.

The instructors encouraged collaborative learning, fostering a supportive environment where students could freely ask questions and seek guidance. By the end of the session, students at High School, Thodar, had developed a newfound appreciation for Python programming and its potential applications.

At Thodar Government High School, Python Prayana unfolds as an immersive learning experience, where students are introduced to the foundational concepts of programming through hands-on activities, interactive lessons, and collaborative projects. By demystifying coding and making it accessible to all students, the program aims to ignite a

passion for technology and empower students to become creators rather than just consumers of digital content.

The curriculum is carefully designed to cater to the diverse needs and abilities of students, ensuring that every learner has the opportunity to succeed. Through engaging activities such as coding challenges, debugging exercises, and real-world applications of Python, students develop critical thinking skills, logical reasoning, and problem-solving abilities.

Moreover, Python Prayana fosters a culture of collaboration and peer learning, where students work together to overcome challenges, share ideas, and celebrate each other's successes. This collaborative spirit not only enhances the learning experience but also prepares students for the collaborative nature of modern workplaces

KPS Hiriyadka – 24 Jan 2024

The Python Prayana initiative continued its journey on January 24, 2024, visiting KPS Hiriyadka. The workshop aimed to demystify Python programming and instill confidence in students to explore coding. Participants delved into basic syntax, data types, and variables, gaining hands-on experience through interactive exercises. The instructors encouraged collaborative learning, fostering a supportive environment where students could freely ask questions and seek guidance.

The session focused on equipping students with foundational programming skills and fostering creativity in coding. Participants enthusiastically engaged in learning basics of Python, showcasing their problem-solving abilities through hands-on projects. The instructors encouraged students to think critically and explore different approaches to coding challenges. By the end of the workshop, students at KPS Hiriyadka had developed confidence in their coding abilities and were eager to continue their exploration of Python programming.

Moreover, Python Prayana at KPS Hiriyadka emphasizes the development of critical thinking skills, problem-solving abilities, and computational thinking among students. By engaging them in real-world coding challenges and projects, the program encourages students to think creatively and analytically, empowering them to tackle complex problems with confidence. Furthermore, Python Prayana promotes collaboration and peer learning, creating a supportive and interactive learning environment where students can learn from each other's experiences and insights. Through group projects, pair programming exercises, and collaborative coding sessions, students not only enhance their technical skills but also develop important soft skills such as communication, teamwork, and leadership.

Overall, Python Prayana at KPS Hiriyadka played a pivotal role in preparing students for the challenges and opportunities of the digital age. By providing them with a solid foundation in Python programming and fostering a culture of innovation and exploration, the school equips its students with the skills and mindset they need to thrive in an increasingly technology-driven world.

Radha Vidyaniketan – 25-29 Jan 2024

On January 25, 2024, Python Prayana visited Radha Vidyaniketan School to conduct a Python programming workshop. The session aimed to demystify coding and inspire students to pursue technology-related fields. Participants delved into Python's basic concepts, including syntax, data types, and variables, through interactive exercises and real-world examples.

The instructors facilitated discussions and encouraged students to think creatively, fostering a collaborative learning environment. Participants enthusiastically explored Python's basics, applying their knowledge to practical exercises. The instructors provided individualized support, ensuring that every student grasped the concepts effectively. The workshop at Radha

Vidyaniketan School left a lasting impression on students, empowering them to embrace technology with confidence and curiosity. The session aimed to empower students with essential programming skills and ignite a passion for coding.

GPUC Bailur – 29 Jan 2024

The Python Prayana initiative continued its journey on January 29, 2024, visiting GPUC School Bailur for a Python programming workshop. The session aimed to introduce students to the power of coding and its relevance in today's world. Participants explored Python's basic concepts, including syntax, data types, and variables, through hands-on activities and group discussions. Students at GPUC School had developed a solid understanding of Python programming and were eager to explore further opportunities in technology.

Participants delved into Python's basic concepts, through hands-on projects and collaborative activities. The instructors provided guidance and support, encouraging students to explore their creativity and problem-solving abilities. By the end of the workshop, students at GPUC School Bailur had developed a newfound appreciation for Python programming and were excited to continue their journey in the world of technology.

Python Prayana encourages a hands-on approach to learning, with students actively engaging in coding exercises, projects, and challenges. By working on real-world problems and applications, students not only gain proficiency in Python but also develop critical thinking skills, logical reasoning, and problem-solving abilities.

Furthermore, Python Prayana integrates innovative teaching methods and resources to make learning Python engaging and enjoyable for students. From interactive tutorials and coding games to guest lectures and industry workshops, students are exposed to diverse learning experiences that cater to their individual interests and learning styles

GHS Neerkere – 30 Jan - 04 Feb 2024

On January 30, 2024, Python Prayana visited GHS Neerkere to deliver a Python programming workshop. The session aimed to ignite students' interest in coding and equip them with essential programming skills.

Participants enthusiastically engaged in learning Python's basic syntax, data types, and variables, applying their knowledge to solve coding challenges. The instructors facilitated interactive discussions and encouraged students to think critically, fostering a dynamic learning environment.

The session aimed to empower students with essential programming skills and ignite a passion for coding. The instructors provided individualized support, ensuring that every student grasped the concepts effectively. The workshop at Little Stars School inspired students to embark on their coding journey and left a lasting impact on their understanding of technology.

In summary, Python Prayana at GHS Neerkere is a transformative initiative that enriches the school's curriculum and empowers students with essential programming skills and competencies. Through engaging activities, practical exercises, and collaborative projects, Python Prayana prepares students to thrive in an increasingly technology-driven world

SHREE NARAYANA GURU ENGLISH MEDIUM SCHOOL – Feb 05, 2024

The Python Prayana offers a comprehensive exploration of Python programming essentials. Participants engage in hands-on coding exercises, discussions, and collaborative projects to enhance their skills. Led by experienced instructors, the program covers Python basics, data structures, and practical applications. The flexible, stress-free format encourages learning at one's own pace, fostering a supportive community for knowledge sharing.

The Python Prayana initiative concluded its journey on February 5, 2024, with a visit to Gurunarayan School for a Python programming workshop. The session aimed to empower students with the skills and confidence to pursue coding as a tool for innovation. Participants delved into Python's basic concepts, including syntax, data types, and variables, through hands-on projects and collaborative activities.

The instructors provided guidance and support, encouraging students to explore their creativity and problem-solving abilities. By the end of the workshop, students at Gurunarayan School had developed a newfound appreciation for Python programming and were excited to continue their journey in the world of technology

The teaching of Python at Shree Narayana Guru English Medium School is structured to cater to the diverse learning needs of students. Through a combination of theoretical

lessons and practical coding exercises, students are introduced to the fundamental concepts of Python programming,

Python Prayana at Shree Narayana Guru English Medium School aims to empower students with valuable programming skills that will not only prepare them for future academic and career pursuits but also foster critical thinking, problem-solving, and creativity

Outcome: Python Prayana yielded positive outcomes in line with its objectives:

1. Increased Interest: Students demonstrated a heightened interest in programming, with many expressing a desire to pursue further studies in computer science.

2. Enhanced Digital Literacy: Participants gained a foundational understanding of technology, empowering them to navigate the digital landscape confidently.

3. Improved Problem-Solving Skills: The hands-on approach and project work significantly contributed to the development of critical thinking and problem-solving abilities among students.

4. Community Engagement: Python Prayana successfully engaged with eight schools, fostering a sense of community and collaboration among students and teachers.

5. Positive Feedback: Feedback from both students and teachers indicated a positive impact, with requests for continued support and future programs

2. FUSIONTECHATHON 2.0

Introduction: FusionTechathon, a dynamic event organized by Python Prayana in collaboration with the AI^2 (Artificial Intelligence and Machine Learning) department, marked a significant stride in fostering technological innovation and collaboration. The event was held on 16/02/2024 in the various laboratories of Artificial Intelligence and Machine Learning. This event brought together 750 students from various schools and colleges, featuring a dual program with workshops for school students and an exhibition for college participants

Inauguration Function: AI^2 Unveiling:

The inauguration function commenced with the unveiling of the AI^2 department, a hub dedicated to advancements in Artificial Intelligence and Machine Learning. Dr. Raghuvir Pai, a distinguished guest and expert in the field, graced the occasion. The managing trustee,

principal, and enthusiastic students were present, symbolizing a collective commitment to pushing the boundaries of technology educationThe inauguration ceremony of FusionTechathon at the AI² department was a momentous occasion marked by significant rituals and distinguished guests. The ceremony unfolded with a solemn lighting ceremony, symbolizing the illumination of knowledge and innovation in the field of Artificial Intelligence and Machine Learning

The ceremony commenced with the lighting of the ceremonial lamp, a symbol of enlightenment and the pursuit of knowledge. The flickering flames resonated with the spirit of exploration and learning that would be the focal point of the event. The symbolic act emphasized the transformative power of education and technology in shaping the future

The stage was then graced by our esteemed chief guest, Dr. Raghuvir Pai. A luminary in the field of Artificial Intelligence, Dr. Pai's introduction highlighted his exemplary contributions to the industry. With a wealth of experience and a visionary approach, he embodied the essence of the FusionTechathon – a convergence of expertise and innovation

OBJECTIVE:

1. **Advancing Technological Exploration:**

   - Foster an environment that encourages participants to explore the latest advancements in technology, particularly in domains such as Artificial Intelligence, Machine Learning, Internet of Things, and beyond.

- Provide a platform for students and professionals to engage with cutting-edge technologies and gain hands-on experience in developing innovative solutions.

2. **Promoting Interdisciplinary Collaboration:**

   - Encourage interdisciplinary collaboration among participants from diverse academic backgrounds, fostering a melting pot of ideas and expertise.

   - Create opportunities for networking and knowledge exchange, bridging gaps between different technological domains and promoting a holistic approach to problem-solving.

3. **Showcasing Innovation and Creativity:**

   - Offer a stage for participants to showcase their innovative projects, emphasizing creativity, technical prowess, and real-world applicability.

   - Recognize and celebrate novel solutions that have the potential to address contemporary challenges and contribute to technological advancement.

4. **Empowering the Next Generation:**

   - Provide a learning platform for students, empowering them with practical skills and knowledge that go beyond traditional classroom settings.

   - Inspire the next generation of technologists by exposing them to industry trends, real-world applications, and the transformative power of technology

CONCLUSION OF PYTHON PRAYANA:

As part of the Python Prayana initiative, a series of workshops were organized for students from eight schools, hosted at our college. This outreach program aimed to introduce young minds to the world of programming, specifically focusing on the versatile and widely-used Python language. The workshops were designed to instill a passion for coding, demystify technology, and provide hands-on learning experiences

Introduction to Python: Basic syntax, data types, and variables.

Understanding control structures (if statements, loops, etc.).

Hands-on Coding Exercises: Participants engaged in practical coding exercises to reinforce theoretical concepts.

Small coding projects were assigned to encourage creativity and problem-solving.

Interactive Sessions:

Open forums for students to ask questions and discuss their coding challenges.

Encouraged collaboration among participants, fostering a supportive learning environment.

Showcasing Real-World Applications:

Demonstrations of Python's applications in various fields, from web development to data science.

Highlighted the relevance of programming skills in today's technology-driven world.

Innovation in Teaching:The workshop employed innovative teaching methodologies to make learning Python an engaging experience:

Gamified Learning:Coding challenges and games were incorporated to make the learning process enjoyable and interactive.

Visual Learning Aids:Visual representations and infographics were used to simplify complex concepts and enhance comprehension.

Practical Project Work: Students were guided through small projects, applying their newfound knowledge to real-world scenarios.

EXHIBITION:

Introduction:

The FusionTechathon Exhibition, a culmination of diverse talents and technological prowess, featured 23 teams from various colleges, each presenting innovative projects spanning domains like Artificial Intelligence and Machine Learning (AIML), Internet of Things (IoT), Web Development, and more. This exhibition provided a platform for participants to showcase their creative solutions and highlighted the rich tapestry of technological innovation.

Diverse Domains Represented:The exhibition hall buzzed with activity as teams set up their displays, creating an immersive experience for visitors. The projects encompassed a wide array of domains, including:

AIML (Artificial Intelligence and Machine Learning): Projects leveraging machine learning algorithms, predictive modeling, and intelligent systems.

Demonstrations of applications in image recognition, natural language processing, and recommendation systems.

IoT (Internet of Things): Innovative solutions integrating IoT devices to address real-world challenges.

Displays showcasing smart home automation, environmental monitoring, and healthcare applications.

Web Development: Cutting-edge websites and web applications highlighting creativity and functionality.

Interactive demonstrations of responsive design, user experience, and the latest web development trends.

Other Technological Domains: Projects exploring emerging technologies, such as blockchain, augmented reality, and cybersecurity.

Displays showcasing the integration of technology into diverse fields, from agriculture to healthcare.

Two Winning Teams:A panel of judges, comprising industry experts and faculty members, meticulously evaluated each project based on criteria such as innovation, technical complexity, and societal impact. After careful consideration, two teams emerged as the winners, each recognized for their outstanding contributions to the technological landscape.

Conclusion:

The FusionTechathon Exhibition celebrated the spirit of innovation and collaboration, providing a glimpse into the diverse and dynamic world of technology. The showcased projects not only demonstrated the technical acumen of the participants but also reflected their passion for solving real-world challenges. As FusionTechathon continues to evolve, it serves as a testament to the collective efforts of the technological community in pushing the boundaries of what is possible.

Head of the Department   **Principal**

Date:29/01/2024

THANKS GIVING LETTER

I am thankful to the 5th Semester Artificial Intelligence and Machine Learning students from Alva's Institute of Engineering and Technology, Mijar for selecting our school for "Python Prayana", an innovative programme. Its a best 5 days training programme from 25/01/2024 to 29/01/2024, for our children as it motivated to learn more about computers and Python.

HEADMASTER

RADHAVIDYANIKETHAN PUBLIC SCHOOL

THENKANIDIYOOR-576 106

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SHREE NARAYANA GURU ENGLISH MEDIUM HIGH SCHOOL
Malpe - 576 108, Udupi District, Karnataka State
Email : sngems.malpe@gmail.com   Mob. 9611157900

Ref No   Date 9 - 2 - 2024

To

Department of Artificial intelligence
and machine learning
Alva's Institute of Engineering & Technology
Modbidri.

Sir,

    Subject:- PYTHON PRAYANA.

with reference to above PYTHON PRAYANA on 16th Feb 2024,
I will allow the students to visit your institution and
to attend the programme. I have no objection, for the
participation of PYTHON PRAYANA programme of 9th A
and 9th B students of our school, in your institution.

    Thanking you,

                            Yours faithfully

                            (SHASHI KUMAR)

                            Headmaster
        Shree Narayana Guru Eng. Med. High School
                 Malpe - 576 108

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
(Unit of Alva's Education Foundation (R), Moodbidri)

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Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka

DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

LIST OF STUDENTS

Sl. no.	Name of students	Class
1.	Hamsika	9th A
2.	Rakshith S	9th A
3.	Sanvi R	9th A
4.	Vaibhav V	9th A
5.	Jobin	9th A
6.	sagar	9th A
7.	P Dhanush	9th A
8.	Chirag	9th A
9.	Adithi	9th A
10.	Gowthami R Palan	9th A
11.	Adithya	9th B
12.	Dhanush K	9th B
13.	Sanvi P	9th B
14.	Rishitha	9th B
15.	Varali	9th B
16.	Niveditha Dinesh	9th B
17.	Preksha	9th B
18.	Shreyas	9th B
19.	Kruthika	9th B

Headmaster
Shree Narayana Guru Eng. Med. High School
Malpe - 576 108

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

LIST OF STUDENTS

Sl. no.	Name of students	Section
1.	Tejas	9th C
2.	Sathvi	9th C
3.	Pruthvi	9th C
4.	Sannindhi	9th C
5.	Sandhya	9th C
6.	Pranamya	9th C
7.	Thanmay	9th C
8.	Sanjali	9th C
9.	Yashasvi	9th C
10.	Thanisha	9th C
12.	Somayya	9th C
13.	Suchith	9th C
14.	Sathvik V Prabhu	9th C
15.	Shravya D Acharya	9th C
16.	Chinmay	9th B
17.	Sudanva	9th B
18.	Pruthviraj	9th B
19.	Disha	9th B
20.	Harshini	9th B
21.	Aishwarya	9th A
22.	Shriya	9th A
23.	Ganesh	9th A
24.	Sanketh	9th A
25.	Murshida	9th A
26.	Shanal	9th C
27.	Yashwini	9th C
28.	Srushti	9th C
29.	Sameeksha	9th C
30.	Thanisha	9th C

Approved

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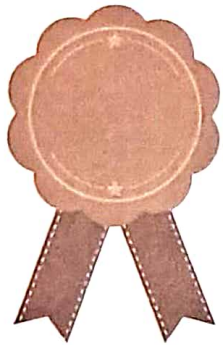
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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

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FORUM

FUSIONTECHATHON 2.0

CERTIFICATE

OF PARTICIPATION

THIS CERTIFICATE IS PRESENTED TO

In acknowledgment of their valuable contributions and enthusiastic engagement in the
FUSIONTECHATHON 2.0-An Intercollegiate **PROJECT EXHIBITION** hosted by the **Department of
Artificial Intelligence & Machine Learning at Alva's Institute of Engineering & Technology**
on **February 16th, 2024.**

PROF. SRIKANTH N G
CO-ORDINATOR

PROF. HARISH KUNDER
HOD, AIML

DR. PETER FERNANDES
PRINCIPAL, AIET