Cybernetic and human engineering achievers.

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NEWSLETTER

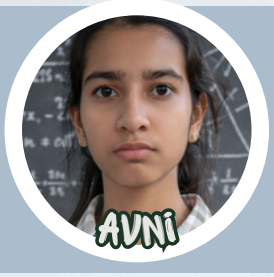
Vol.1

WEATHER FORECASTING DASHBOARD: TURNING DATA INTO PREDICTIONS

IN SHORT

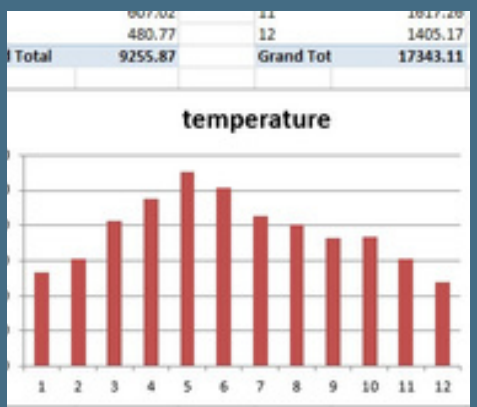
developed an interactive Weather Forecasting Dashboard using Python (Google Colab).

providing data-driven weather predictions that can support planning and decision-making in different sectors.



LEARNING

Through this project, the team improved their ability to interpret complex datasets and identify trends using statistical and hypothesis-driven analysis.



A team of learners—Hardik, Akshat Jain, Raj Sahu, Prachi and Avni — developed an interactive Weather Forecasting Dashboard using Python (Google Colab). The project applied Big Data Analytics, Exploratory Data Analysis (EDA), and visualization techniques to analyze weather data and build models for predicting weather patterns.

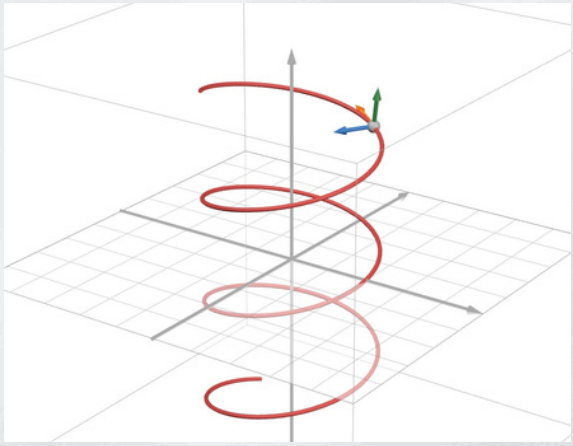
The dashboard demonstrates practical applications of data science by providing data-driven weather predictions that can support planning and decision-making in sectors such as agriculture, disaster management, and transportation.

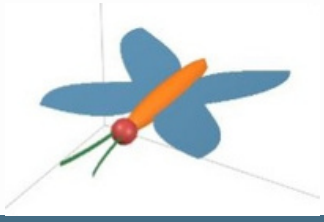
FOUNDATIONS OF XR LEARNING:

IN SHORT

built a strong foundation in Augmented Reality (AR) by creating interactive mathematical visualizations using Demos

These skills enable interactive visualization and immersive applications in education ,engineering, healthcare, and industrial training.





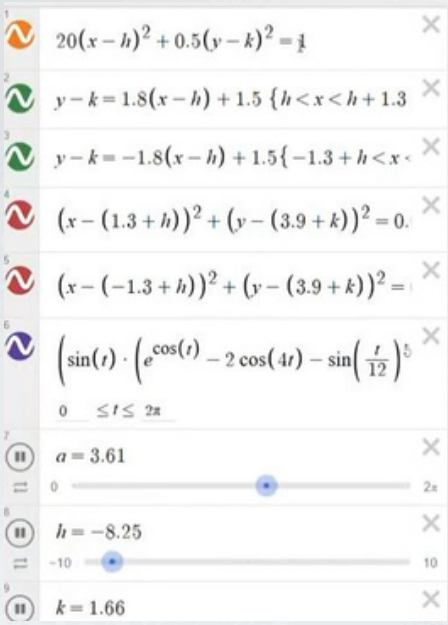
LEARNING

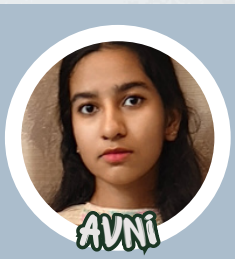
they enhanced their spatial visualization, computational thinking, and technology integration skills, preparing themselves for future XR-based applications.

APPLICABILITY

These skills support the growing field of Extended Reality (XR), with applications in education, engineering, healthcare, and industrial training, helping students adapt to emerging technologies.

Learners of Sri Sathya Sai Vidya vihar GAIL Siri (X), Pratiksha Agrawal (XI) Hardik(XI), and Avni (XII) built a strong foundation in Augmented Reality (AR) by creating interactive mathematical visualizations using Desmos to model and analyze complex structures.





IN SHORT

> **ChemYukti facilitated student participation in prestigious international competitions such as the International Youth Math Challenge and the International Physics Championship.**

LEARNING

Built confidence and readiness to participate in international-level academic challenges. Gained experience in preparing, formatting, and submitting academic
work digitally according to competition or institutional guidelines.

INTERNATIONAL COMPETITION PARTICIPATION

ChemYukti facilitated student participation in prestigious international competitions such as the International Youth Math Challenge and the International Physics Championship. Several participants successfully cleared the qualification rounds, demonstrating strong analytical skills and global academic competitiveness.


International Physics Competition
Edition of 2025

PARTICIPATION CERTIFICATE

16 February 2026

presented to

Avni Meena

India


International Youth Math Challenge

Participation Certificate

Avni Meena

India

IN SHORT

how AI and data storytelling can transform complex datasets into actionable insights,

APPLICABILITY

These skills demonstrate how AI and data storytelling can transform complex datasets into actionable insights, a method widely used in marketing, business strategy, and decision-making.

CONTENT CREATION & DATA STORYTELLING

Pratiksha Agrawal (XI) and Hardik (XI) worked on creating AI-powered teaching resources and weather data storytelling projects. The initiative focused on interpreting real-world weather data and presenting insights through structured narratives.

LEARNING

Through this work, they improved their communication and explanation skills by analyzing data, describing events, ar presenting meaningful insights.

IN SHORT

app help in improving government urea distribution systems by enabling transparent allocation and real-time farmer communication

APPLICABILITY

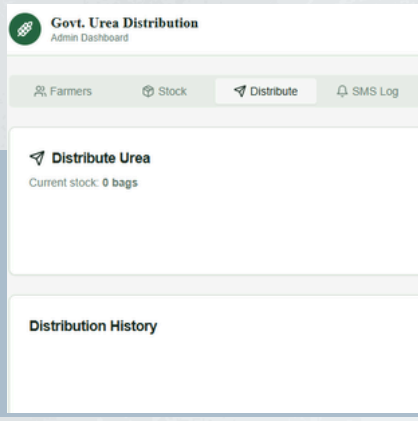
The app can help improve government urea distribution systems by enabling transparent allocation, real-time farmer communication, and traceable delivery, reducing errors, crowding, and misuse while increasing administrative efficiency.

UREA DISTRIBUTION APP

With mentorship support, learners Harshita Kabra (XI),Pratiksha Agrawal(XI), Shivansh (VIII), and Avni(XII)developed individual Urea Distribution Apps to address supply mismanagement. The project earned them an opportunity to pitch their solution to government authorities.

LEARNING

learners gained practical experience in solution design, app development, supply chain management, and stakeholder presentation.



IN SHORT

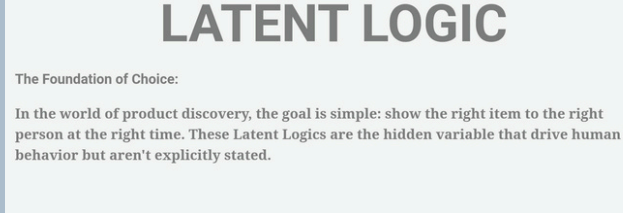
enabling learners to build applications and machine learning models to solve real-world problems.

LEARNING

Developed the ability to translate ideas into functional digital solutions
from concept to deployment. Enhanced technical documentation and blogging skills to clearly present projects and share knowledge with a wider audience.

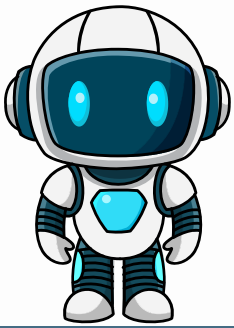
APPLICATION DESIGN AND DEVELOPMENT

Learners Geet (XI) and Harshita (XI) worked on designing and developing practical applications to address real-world challenges. Through this process, they gained hands-on experience in problem-solving, app design, and technical development.



IN SHORT

chatbot design and development, empowering learners to design and implement their own functional chatbots



ChemYukti provided structured, hands-on training in chatbot design and development, enabling Grade X students to create their own functional chatbots.

LEARNING

Chatbot development skills enable learners to create intelligent conversational AI for sectors like customer service, healthcare, banking, and education, while gaining practical experience in NLP, dialogue management, testing, and deployment, preparing them for AI and software development careers.

```
occasion_outfits = {
  "wedding": "A formal suit or a beautiful saree/dress with elegant accessories.",
  "party": "A stylish casual outfit like jeans with a cool top, or a semi-formal dress.
  "office": "A neat formal shirt with trousers, or a professional business outfit.",
  "gym": "Comfortable sportswear like track pants, shorts, and a breathable t-shirt.",
  "casual": "Jeans with a t-shirt, hoodie, or a light casual dress."
}

def outfit(occasion):
  occasion = occasion.lower()
  if occasion in occasion_outfits:
    outfit_suggestion = occasion_outfits[occasion]

    message = f"For a {occasion}, you should wear: {outfit_suggestion} "

    if occasion == 'wedding':
      message += "It's a special event, so dress your best!"
    elif occasion == 'party':
      message += "Make sure your outfit is comfortable and stylish."
    if occasion == 'gym':
      message += "Don't forget your water bottle!"

    return message
  else:
    return f"Sorry, I don't have outfit ideas for {occasion}."

def chatbot_reply(user_input):
    user_input = user_input.lower()
```