

# AI AND DATA ANALYTICS

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# Deck Outline

- Presentation Title: *"AI and Data Analytics: Transforming the Future"*
- Subtitle: Optional tagline like *"Insights at the Speed of Thought"*
- Speaker Peang Ratana,
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- Organization: Codeducation

# Introduction to AI and Data Analytics

- **What is AI?:** Brief definition of Artificial Intelligence.

Artificial Intelligence (AI) is a field of computer science focused on creating systems capable of performing tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, understanding natural language, perceiving the environment, and even making decisions.

- **What is Data Analytics?:** Definition and importance in decision-making.

- **Convergence:** How AI enhances data analytics through automation, prediction, and insights.

# Why AI in Data Analytics?

- Handling Big Data
- Real-time Analysis
- Enhanced Predictive Analytics
- Better Decision-Making

# Key Use Cases

- **Business:** Customer segmentation, sales forecasting, and churn prediction.
- **Healthcare:** Predictive diagnostics, drug discovery, and patient monitoring.
- **Finance:** Fraud detection, risk assessment, and algorithmic trading.
- **Marketing:** Personalized recommendations, sentiment analysis, and trend detection.

# Tools and Techniques

- **Popular Tools:**

- Python (with libraries like Pandas, Scikit-learn, TensorFlow).
- R for Statistical Computing.
- Power BI and Tableau for visualization.
- Cloud-based platforms: Azure, AWS, and Google Cloud.

- **AI Techniques:**

- Machine Learning (Supervised, Unsupervised, Reinforcement).
- Natural Language Processing (NLP).
- Deep Learning.

# Challenges and Ethical Considerations

- Data Privacy and Security
- Bias and Fairness in AI Models
- Interpretability of AI Insights
- Scalability and Cost

# Future Trends

- Explainable AI (XAI)
- Edge Analytics
- AI for Climate Data and Sustainability
- Integration of Generative AI



# Thanks for your attending

More information

- Scan here

