



KIDS & TEENS FREELANCING TRAINING INSTITUTE

Data Science Course Outline

Module 1: Introduction to Data Science

- What is Data Science?
 - How Data is All Around Us (Real-life Examples)
 - Meet a Data Scientist (Role & Responsibilities)
 - Data in Games, Social Media & Apps
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Module 2: Understanding Data

- What is Data? (Types: Text, Numbers, Images)
 - How to Collect Data (Surveys, Sensors, Web)
 - Good vs Bad Data (Clean vs Messy Data)
 - Fun Activity: Collect Data from Your Class or Family
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Module 3: Organizing & Sorting Data

- Tables, Rows & Columns – Intro to Spreadsheets
 - How to Use Google Sheets or Excel
 - Sorting & Filtering Data
 - Mini-Project: Organize Your Favorite Games or Movies
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Module 4: Visualizing Data

- What is Data Visualization?
 - Types of Charts: Bar, Line, Pie, Scatter
 - Tools: Google Sheets / Chart Toolkits
 - Activity: Turn Survey Data into Cool Charts
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Module 5: Intro to Programming for Data

- What is Python? (Basic Explanation)

- Using Python to Read and Analyze Data (Very Basic)
 - Activity: Use a Block-Based Tool or Simple Python Code to Play with Numbers
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Module 6: Patterns, Predictions & Machine Learning (Intro)

- What is a Pattern? What is a Trend?
 - Intro to AI & Machine Learning (Kid-friendly Examples)
 - Real-Life Applications (Netflix, YouTube, Games)
 - Fun Activity: Predict What Happens Next with Data!
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Module 7: Data & Ethics

- How Companies Use Your Data
 - Why Privacy Matters
 - Being a Responsible Data User
 - Activity: Discuss "What Would You Do?" Scenarios
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Module 8: Final Project

- Choose a Topic (Sports, Games, Food, etc.)
 - Collect, Organize & Visualize Your Own Data
 - Present Your Mini Data Science Project
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Bonus: Tools & Platforms for Kids

- Google Sheets
- Scratch + Data Extensions
- Data Games & Simulations
- (Optional) Python Notebooks for Beginners