CODOJO

Course Overview: Scratch Programming

Session Breakdown (90 Sessions, 1 hour each):

Sessions 1-8: Introduction to block-based programming

Sample Projects: Animate Your Name (Basic animation using Scratch)

Sessions 9-15: Basics of Scratch Jr. Sessions

Sample Project: Storytelling Animation (Kids create a short animated story)

16-21: Speed Block and Say Block

Sample project: Talking Robot (A character that responds with speech bubbles)

Sessions 22-29: Advanced Say Block

Sample Project: AI Chatbot Simulation (Basic Q&A using Scratch)

Sessions 30-48: Interactive game design covering

Sample Projects: Dance Party, Flappy Bird, Racing Game, Talking Friends, Maze Game.

Learning - Sprites, sequencing, repeating algorithms, loops, iterations. -

Backgrounds and interaction logic.

Advanced Levels:

Sessions 49-57: Advanced platformer game

Sample Project: Super Mario Clone (Custom platformer game)

Sessions 58-68: Game physics

Sample Project: Gravity Basketball (Ball movement with real physics)

Sessions 69-80: 3D game design

Sample Project: 3D Car Racing (First-person driving simulation)

Sessions 81-90: Machine learning games

Sample Project: Smart AI Game (Game that adapts to player moves)

Skills Developed:

STEM Skills:

- Sequential thinking, logic, algorithms, and mathematical skills.

Cognitive Skills:

- Visual processing, decision-making, creative and logical thinking.

Outcomes: Creation of interactive animations, platformer games, 3D objects, and machine learning-based games.

Examples include games Rock-Paper-Scissors, Super Mario, Monkey Ladder, 3D Car Racing,

Progression Levels:

Level 0 (Scratch Jr Star): Foundations in block-based coding.

Level 1 (Scratch Star): Fundamentals of Scratch and basic game creation.

Level 2 (Scratch Superstar): Advanced games with physics and interaction.

Level 3 (Scratch Master): Expert-level games, including 3D and machine learning

The Codojo promise

Kids who do well in coding, do much better at school!