



MAKE YOUR CHILD  
**FUTURE READY** WITH

# ICODE JR.

[WWW.ICODEJR.COM](http://WWW.ICODEJR.COM)

**GRADE 6 – 8**





# About Us



[www.icodejr.com](http://www.icodejr.com)

## Our Mission

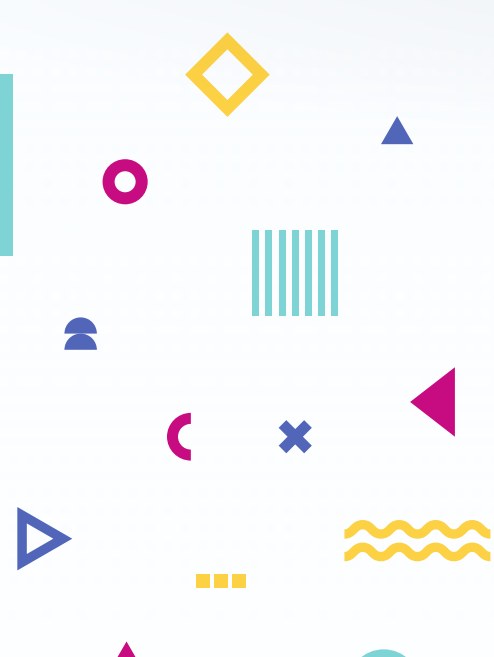
To provide the best-in-class education to all our students via high quality faculty, state-of-the-art curriculum, interactive learning environment, and an affordable-by-all program.

## Our Vision

Empower every child with coding skills to help them get future-ready! The future as we know it, is digital. We aim to fortify every student of ours with all the necessary tech skills to be ready for the world of tomorrow.

## Our Values

Passion. Efficiency. Inclusion. Accessibility.



# Our Values



## Efficiency

Deliver content in the most efficient manner, making sure that learners can consume the important information to expedite the development of new or existing skills.



## Passion

Relentless effort into delivering content in a passionate manner that elicits interest, engagement, and excitement amongst all learners.



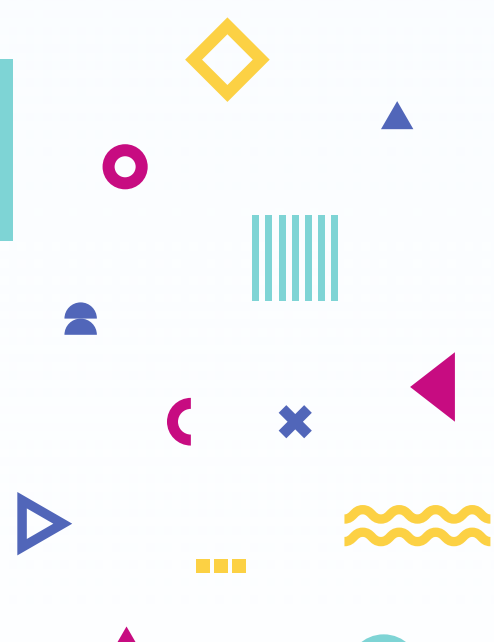
## Accessibility

Expertise and knowledge should not have to be limited to geographies. Our learning must be globally accessible to anyone with internet & a computer, tablet, or smart phone.

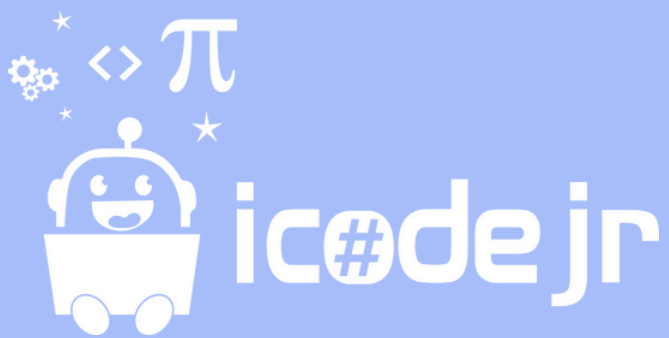


## Inclusion

No one gets left behind – we want to make sure that content gets delivered in the most inclusive manner possible, while there is a continuous conscious effort towards empathizing with all learners.







# From our Founder's Desk



[www.icodejr.com](http://www.icodejr.com)

At icode, we prepare your children for the world of tomorrow. We don't aspire. We do. We give top-class education in tech to the students with global faculty, an amazing curriculum and an engaging atmosphere, all while making it inclusive, affordable and accessible.

-Hanan Moti  
Founder, CEO



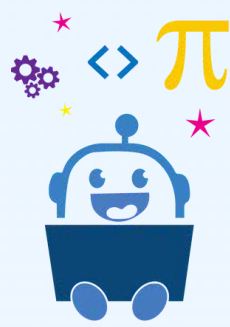
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Coding is the most important skill set of the future. Its relevance has been acknowledged by the UN and all leading governments, including the UAE.

At icode, we want the students to learn these skills that help become global thinkers.

-AK Moti,  
CoFounder, COO





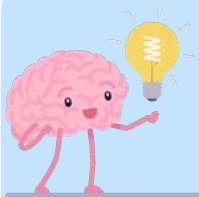
# icodejr

## Why your child should learn to code with us



### Money Back Guarantee

We stand by our program. If you're not happy, we offer a money-back guarantee!



### LICENSED IN THE UAE

iCodejr is born, licensed & accredited in the UAE! That means you're assured the best standard of education & accredited certifications!



### HACKATHONS!

The **ONLY** academy that offers in-person hackathons, allowing coders to showcase their talent and develop social skills!



### BEYOND CODING!

The only coding academy that's **Ted Ed & Microsoft Education Partner** approved!  
**Free Microsoft 365 for all students!**





Certified Arduino  
Programmer



Robotics-  
Tinkercad circuits

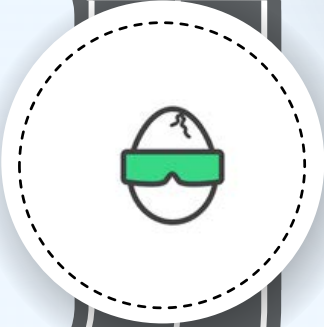


Certified Tinkercad  
Programmer



**40 Projects**  
*Create simple animations  
and games*

AR/VR-Hatch XR



**235-246**  
Classes



**AR/VR certification.**



# Pricing



## CADET

**AED 1,800/-**

- 24 1-on-1 Live Sessions
- 24 Classes
- Programming basics, Introduction to blocks in ScratchJr.

## CAPTAIN

**AED 3,120/-**

- Introduction to Sound Blocks, Changing Size, Importing Sprites.
- 48 Classes.
- Jr Captain Certificate & Lifetime Community Access.

## COLONEL

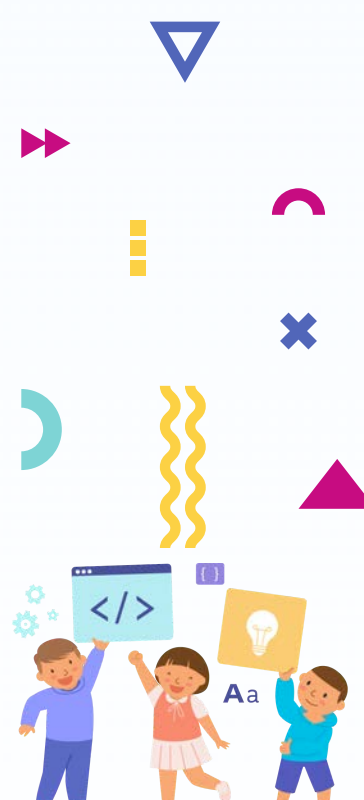
**AED 5,760/-**

- Learning about speed blocks, Introduction to motion blocks.
- 96 Classes.
- Improves problem solving skills, Logical thinking abilities.

## GENERAL

**AED 7,200/-**

- Jr. Captain | Game Dev, Arts & Tech | App Dev (Python, AI, JS).
- 144 Classes.
- Everything in Jr Captain + Jr Colonel Certificate + Scholarships.





# Module 1–5–: Scratch(Explore Math and Science)

12 Classes

40+ Projects

25 Quizzes



## Key Learnings

- ✓ Utilizing motion blocks for animations
- ✓ Building interactive projects
- ✓ Using variables for scorekeeping
- ✓ Collision detection and response



## Achievements

- ✓ Create a sprite animation with custom motion paths
- ✓ Develop a game where sprite responds to user input
- ✓ Design a project with scoring and dynamic variables
- ✓ Develop a game with complex sprite interactions

## Featured Projects



Score Master challenge



Ninja Fruit Slicer

### Module 1: Basic blocks , Advanced Motion & Sensing

- Understanding of Motion Blocks
- User Interface (UI) Design

Language: Blockbased  
Platform: Scratch

10 lessons & 10+ projects



Interactive Game



Sprite Animation

### Module 2: Variables and Data & Advanced sprite Interaction

- To create and manage a dynamic scoring system
- Handling complex sprite interactions

Language: Blockbased  
Platform: Scratch

10 lessons & 10+ projects



Scorekeeper



Collision  
Response

### Module 3: Game Design & Platformer games

- Learn how to create and plan the concept for a basic game
- Identify key gameplay elements, goals, and challenges

Language: Blockbased  
Platform: Scratch

10 lessons & 10+ projects



Platformer  
Quest



Game Flow and  
Structure

# Overview

## Module 4: Advanced animation techniques & problem Solving

- To design and animate a complex character
- Gain skills in creating smooth transitions between animations

Language: Blockbased  
Platform: Scratch

10 lessons & 10+ projects



Character Design and Animation



Smooth Transitions

## Module 5: Game Design Principles & Project Showcase

- Applying principles of game design
- Learn to brainstorm, outline, and set goals for the project.

Language: Blockbased  
Platform: Scratch

4 lessons & 4+ projects



Ninja Fruit



Improved visuals

# Module 6–8–: MIT APP Inventor(App Development)

24 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Understanding the basic structure of an app
- ✓ Understanding the tools and techniques to troubleshoot issues
- ✓ Learning how to structure and manage quiz questions and answers
- ✓ Implementing a scoring system



## Achievements

- ✓ Learning to display text (like the "Hello World" message) on the screen
- ✓ Basic Debugging
- ✓ Question Handling
- ✓ Timer/Score System

## Featured Projects



### UI/UX Design



### Interactive app

#### Module 6: MIT APP Inventor,User Interface Design&Event Handling

- To explore basic components and functionalities
- To design UI with components

Language: Block Based  
Platform: Mit App Inventor

5 lessons & 5+ projects



Interactive app



Event handling

#### Module 7: Data,Multimedia Integration &Advanced UI

- Storing and retrieving data
- Build apps that utilize local storage for data

Language: Block Based  
Platform: Mit App Inventor

8 lessons & 8+ projects



Incorporating images, sounds



Created dynamic

#### Module 8: Data Management and App Customization

- Build apps with complex behaviors
- Develop apps with advanced data processing

Language: Block Based  
Platform: Mit App Inventor

10 lessons & 10+ projects



Game Logic



State Management



# Module 9–12–: EduBlocks (App Development)

44 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Exploring logical operators
- ✓ Understanding the basics of conditional statements
- ✓ Using nested if-else statements
- ✓ Understanding short-circuiting and ternary operators



## Achievements

- ✓ Understand logical operators (and, or, not)
- ✓ Introduce if-else statements and their role in decision making
- ✓ Explore nested conditional statements and their applications.
- ✓ Explore short-circuiting behavior and ternary operators.

## Featured Projects



**Manipulate strings using string methods**



**Write a function to calculate the factorial of a number.**

### Module 9: Introduction to Edublocks & Python Data Types

- Introduction to Edu blocks and Python Basics
- Understanding Data Types

Language: Block Based  
Platform: Edublocks

**5 lessons & 5+ projects**



String Data Type



Boolean Data Type

### Module 10: Operators and Conditionals in Python

- Understanding different types of operators
- Exploring arithmetic operators

Language: Block Based  
Platform: Edublocks

**8 lessons & 8+ projects**



Arithmetic Operators



Logical Operators

### Module 11: Advanced Conditionals and Loops

- Using nested if-else statements
- Working with for loops

Language: Block Based  
Platform: Edublocks

**10 lessons & 10+ projects**



Nested Conditionals



Looping structures

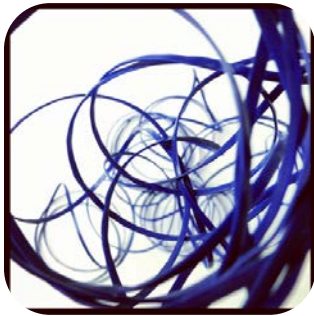
# Overview

## Module 12: Loops and Functions in Python

- Understanding while loops
- Understanding the basics of functions
- Understanding return values

Language: Block Based  
Platform: Edublocks

10 lessons & 10+ projects



While Loops



Functions

# Module 13–16–: Python(IDE)

21 Classes

40+ Projects

35 Quizzes



## Key Learnings

- ✓ Overview of Python syntax and basic functionalities
- ✓ Working with variables and different data types
- ✓ Handling user input and displaying output
- ✓ Using if-else statements for decision making



## Achievements

- ✓ Writing and using functions in Python
- ✓ Working with files and storing data
- ✓ Understanding dictionaries and sets
- ✓ Working with tuples and tuple unpacking

## Featured Projects



Variables



Calculator

### Module 13: Introduction to Variables, Data Types, and User Input

- Getting familiar with the Replit IDE interface.
- To learn variables, data types, and basic operations

Language: Block Based  
Platform: jDoodle/replit/visual studio code

8 lessons & 8+ projects



Variables and data types



Handling user input and displaying output

### Module 14: Output, Conditionals, and Loops

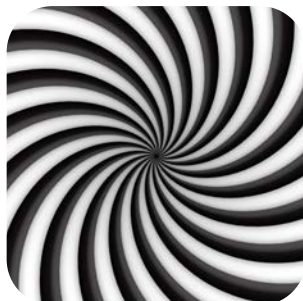
- Printing output using the print() function.
- Implementing nested if-else statements.

Language: Block Based  
Platform: jDoodle/replit/visual studio code

8 lessons & 8+ projects



Nested if-else



Understanding Loops

### Module 15: Lists, Strings, and Functions in Python

- Understand lists and their properties
- Using list methods such as append(), remove(), and extend()

Language: Block Based  
Platform: jDoodle/replit/visual studio code

8+ lessons & 8+ projects



Python Lists



List Manipulation



# Overview

## Module 16: Functions, File Handling, and Practice

- Declaring functions, passing arguments, and returning values.
- Understanding function scope and local variables.

Language: Block Based

Platform: jDoodle/replit/visual studio code

10 lessons & 10+ projects



Working with Files



Storing Data in Files

# Module 17–18(pygame)

19 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Setting up an IDE (Spyder) for Python development
- ✓ Learning how to detect collisions between objects
- ✓ Understanding how to handle player input
- ✓ Learning to manage dynamic objects in the game



## Achievements

- ✓ Synchronizing sounds with specific in-game events,
- ✓ Learning to manage different states in the game
- ✓ Learning to manage dynamic objects in the game
- ✓ Managing different behaviors based on the game state

## Featured Projects



Catch the Clown



Catch the Clown–Sound

### Module 17: Introduction to SPYDER IDE and Game Development

- Successfully install and configure SPYDER IDE
- To develop "Feed the Dragon" game with basic mechanics and interaction.

Language: Block Based  
Platform: Spyder

8 lessons & 8+ projects



Feed the Dragon



Catch the Clown

### Module 18: Game Sound and States

- Enhance the gameplay experience.
- Add sound effects to the "Snake" game.

Language: Block Based  
Platform: Spyder

8 lessons & 8+ projects



Catch the Clown–Sound



Snake-Game States

# Module 19–22–: WeB Designing–CANVA

10 Classes

40+ Projects

20 Quizzes



## Key Learnings

- ✓ Understanding the role of design
- ✓ Navigating Canva and Understanding Its Various Tools
- ✓ Fundamental Design Principles and Applying Them in Canva
- ✓ Color Theory and Selecting Color Schemes Using Canva



## Achievements

- ✓ Familiarized with Canva
- ✓ Wireframing and Its Importance
- ✓ Responsive Design Principles
- ✓ Advanced Design Techniques

## Featured Projects



Playing with fonts



Design principles

### Module 19: Design Fundamentals with Canva

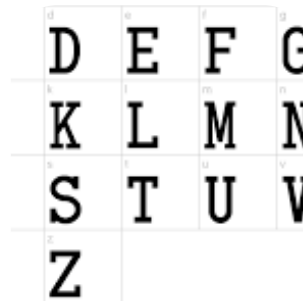
- Basics of the Canva interface
- Understanding tools and features

Platform: Canva

10 lessons & 10+ projects



Design principles,



Playing with fonts

### Module 20: Advanced Design and UI Creation in Canva

- Image Editing Fundamentals
- Mastering Layouts

Platform: Canva

3 lessons & 3+ projects



Image editing



Wireframing

### Module 21: Responsive Design and Social Media Ads in Canva

- Creating responsive design in Canva
- Exporting designs from Canva

Platform: Canva

2 lessons & 2+ projects



Responsive design principles



Basics of designing



# Overview

## Module 22: Responsive Design and Social Media Ads in Canva

- Advanced social media ad design techniques
- Introduction to shopping website design

Language: Block Based  
Platform: Canva

10 lessons & 10+ projects



Shopping Website Product Design



Shopping website design

# Module 23–26–: Web Development

20 Classes

40+ Projects

40 Quizzes



## Key Learnings

- ✓ Basics of HTML, tags, and structure
- ✓ Understanding different HTML elements and attributes
- ✓ Introduction to form elements in HTML
- ✓ Creating tables in HTML



## Achievements

- ✓ Weekly Schedule
- ✓ Basics of AJAX for asynchronous communication
- ✓ Building responsive websites with Bootstrap
- ✓ Creating navigation bars and layouts with Bootstrap

## Featured Projects



News Feed



Blog Layout

### Module 23: Introduction to HTML and CSS Basics

- Elements, attributes, forms, tables, and semantic elements
- Introduction to CSS

Language: Hatch XR

Platform: Visual studio code

8 lessons & 8+ projects



Animated  
Logo



Variables

### Module 24: Advanced Web Design and Development

- CSS transitions and animations
- JavaScript and its events

Language: Block Based

Platform: Visual studio code

8+ lessons & 8+ projects



Weather App



Calculator

### Module 25: Advanced Bootstrap and JavaScript Development

- responsive design with Bootstrap
- JavaScript functions, scope, arrays, loops, objects, JSON

Language: Hatch XR

Platform: Visual studio code

8+ lessons & 8+ projects



Error Logger



Chat  
Application

# Overview

## Module 26: JavaScript, Node.js, and Final Project

- JavaScript libraries
- Basics of Node.js

Language: Hatch XR  
Platform: Visual studio code

10 lessons & 10+ projects



Chat  
Application



Personal Portfolio  
Website



# Module 27–29–:Unity

24 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Overview of Unity interface and basic navigation..
- ✓ Understanding GameObjects, Transforms, and Components
- ✓ Introduction to Unity's physics system
- ✓ Basics of C# scripting for Unity



## Achievements

- ✓ Player Control Setup
- ✓ Scene Transitions
- ✓ Health Bar UI
- ✓ Character Animation Setup

## Featured Projects



Sound Effects Setup



Interactive Menus

### Module 27: Introduction to Unity and Game Development

- GameObjects, components, physics, C# scripting
- UI design, and basic animation techniques with events and triggers

Platform: Unity hub

8 lessons & 8+ projects



Multiplayer  
Integration



Advanced Enemy  
AI

### Module 28: Advanced Unity Game Development

- Unity features
- Advanced UI design, optimization techniques

Platform: Unity hub

8+ lessons & 8+ projects



Simple Enemy  
AI



Performance  
Optimization

### Module 29: Emerging Technologies in Game Development

- Advanced Enemy AI
- AR/vr Experience Setup

Platform: Unity hub

8+ lessons & 8+ projects



Artificial  
Intelligence (AI)



Virtual Reality  
(VR)

# Module 30–32–:Electronics–Arduino

24 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Basics of electronics components and circuits
- ✓ Overview of Arduino platform and its components
- ✓ Using digital pins for input and output
- ✓ Generating analog signals using PWM



## Achievements

- ✓ Working with displays in Arduino projects
- ✓ Using wireless modules for communication
- ✓ Introduction to IoT concepts and projects
- ✓ Working with advanced sensors

## Featured Projects



LED Dimming



IoT Weather Station

### Module 30– : Introduction to Electronics and Arduino Programming

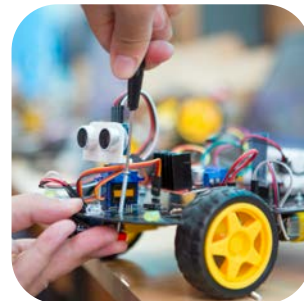
- Basics of electronics and Arduino
- dDgital and analog inputs/outputs

Language: Python  
Platform: Arduino IDE

8 lessons & 8+ projects



Servo Motor Control



Line Following Robot

### Module 31: Advanced Electronics, IoT, and Robotics

- Robotics basics, advanced sensors and actuators
- Data logging and visualization, automation systems

Language: Python  
Platform: Arduino IDE



Data Logging and Plotting



Home Automation System

### Module 32: Advanced Electronics, Networking, and Machine Learning

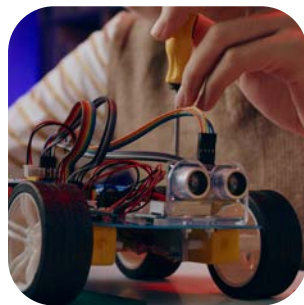
- Machine learning with Arduino
- Culminates into a final project

Language: Python  
Platform: Arduino IDE

8+ lessons & 8+ projects



Wearable Health Monitor



Custom Arduino Project



# Module 33–35–: ROBOTICS – TINKERCAD CIRCUITS

24 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Basics of robotics and Tinkercad Circuits
- ✓ Basics of electronic components and circuits
- ✓ Overview of Arduino platform and programming
- ✓ Basics of motors and motor control



## Achievements

- ✓ Working with advanced sensors
- ✓ Advanced motor control techniques
- ✓ Basics of wireless communication for robotics
- ✓ Logging and visualizing data in Arduino projects

## Featured Projects



Bluetooth Communication Project



Temperature Logging Project

### Module 33: Robotics Fundamentals and Arduino Programming

- DC Motor Control Project
- Servo Motor Control Project

Language: Html, css,j avascript  
Platform: Tinkercad circuits

8 lessons & 8+ projects



PID Control Simulation



Autonomous Rover Simulation

### Module 34---:Responsive Web Design & JavaScript

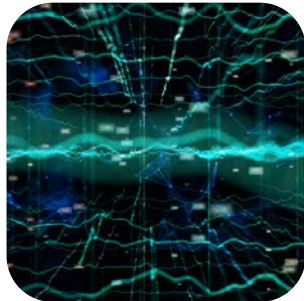
- Advanced programming techniques,
- Voice Controlled Robot Simulation

Language: Html, css,j avascript  
Platform: Tinkercad circuits

8+ lessons & 8+ projects



Swarm Robotics Simulation



Industry-Specific Project Simulation

### Module 35---: Working with APIs, Frontend Frameworks &Final Project and Showcase

- Project presentation
- Competition Simulation

Language: Html, css,j avascript  
Platform: Tinkercad circuits

8+ lessons & 8+ projects



Competition Simulation



Research Project Simulation



# Module36 – AR/VR – HATCH XR

12 Classes

40+ Projects

44 Quizzes



## Key Learnings

- ✓ Basics of augmented reality and virtual reality
- ✓ Creating virtual environments
- ✓ Importing and placing objects in AR/VR environments
- ✓ Adding basic interactions to AR/VR objects



## Achievements

- ✓ Implementing complex interactions in AR/VR
- ✓ Developing for multiple AR/VR platforms
- ✓ Implementing AR cloud and persistent experiences
- ✓ Application of concepts learned

## Featured Projects



### UI Design Project



### Animation Project

## Module 36: Robotics Fundamentals and Arduino Programming

- Fundamentals of Augmented and Virtual Reality (AR/VR)
- Building environments, adding objects and assets

Language: Html, css, javascript  
Platform: HatchXR

8 lessons & 8+ projects



Audio Project



Advanced Interaction Project

# #SSS: Student success stories

01.

**Zyann Built His First Game at Age 8!**



02.

**Harnidh Created Her Own App at Age 13!**



03.

**Ishaan Designed His First Website at Age 12!**



04.

**Gridell Mastered Python at Age 10!**







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class with our tech  
guru.

**4** Like this session?  
Enrol. Go ahead  
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decide the pace of  
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