NO. 1

ONLINE
TECH
CLASSES

FOR KIDS

Register Now

THE PROXY
ACADEMY

OUR MISSION

Our mission is to empower young Africans with innovative tech education, equipping them with the skills and resources necessary to lead the the continent's digital transformation and create sustainable solutions for the future.

More information

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TARGET AUDIENCE

Our online tech school is designed for children and teenagers aged **5 to 17** who are curious about technology and eager to learn essential skills for the digital future. We cater to all learning levels, from beginners who are just starting to explore tech concepts to advanced learners ready to dive deeper into complex topics.

COURSE OFFERINGS

- Coding
- Graphics .Design
- Web design and development
- Game development
- AI and machine learning
- Cybersecurity & Internet safety
- (Mobile) App development
- Illustration/Animation
- Data Analysis
- Digital Marketing

1

CODING FOR KIDS (AGES 5 - 17)

This beginner-friendly course introduces young children to basic programming concepts using visual coding tools like Scratch and Blockly.

What they'll learn:

- Basic problem-solving skills
- How to create interactive stories, games, and animations
- Logical thinking through fun activities

2

AI & MACHINE LEARNING (AGES 14 - 17)

A course designed for teenagers interested in understanding how AI works and how it's shaping the future.

What they'll learn:

- Building robots with sensors and motors
- Programming robots to perform specific tasks
- Problem-solving and teamwork

3

GAME DEVELOPMENT (AGES 13-17)

This course takes students through the exciting world of game design and development using game engines like Unity or Godot.

What they'll learn:

- Game mechanics and dynamics
- Level design and character creation
- Introduction to C# programming (for Unity)
- How to export games for desktop and mobile platforms

4

CYBERSECURITY & INTERNET SAFETY (AGES 10-17)

This course teaches students the fundamentals of online safety and cybersecurity, focusing on protecting personal information and understanding threats.

What they'll learn:

- How to recognize phishing and online scams
- Basic encryption and password management
- Protecting devices from malware and viruses
- Safe browsing practices and social media security

5

WEB DESIGN & DEVELOPMENT (AGES 9-17)

Students will learn how to build simple websites using HTML and CSS, with an introduction to JavaScript for adding interactivity.

What they'll learn:

- The structure of a website (HTML)
- Styling and layout (CSS)
- Basic animations and dynamic content (JavaScript basics)

6

ILLUSTRATION (AGES 10-17)

This course covers the basics of digital and traditional illustration techniques, focusing on artistic expression through digital media.

What they'll learn:

- Drawing techniques: perspective, shading, and form
- Character and environment design
- How to use digital tools to create illustrations
- Storyboarding and concept art

7

DATA ANALYSIS (AGES 15-17)

In this course, students will learn how to collect, analyze, and visualize data, gaining insights into trends and patterns in various fields.

What they'll learn:

- Data collection methods and best practices
- Introduction to data analysis tools and techniques
- How to clean, manipulate, and visualize data
- Creating graphs, charts, and dashboards for presentation
- Basic statistics for data interpretation

8

GRAPHIC DESIGN (AGES 15-17)

In this course, students will dive into the fundamentals of visual communication, learning how to create compelling designs using digital tools. They'll develop the skills needed to convey ideas through graphics, while also exploring the creative process from concept to execution.

What they'll learn:

- Introduction to graphic design principles (color, typography, composition)
- Use of industry-standard software (e.g., Adobe Illustrator, Photoshop)
- Creating digital illustrations, logos, and other visual assets
- Designing for both print and digital media
- Building a portfolio showcasing their design projects

9

MOBILE APP DEVELOPMENT (AGES 10-17)

A hands-on course that introduces teens to mobile app development using platforms like MIT App Inventor React Native or Flutter.

What they'll learn:

- How to design user interfaces for mobile apps
- Basic logic and flow control for app functionality
- How to publish apps to the App Store or Google Play

10

DIGITAL MARKETING (AGES 13-17)

This course introduces students to the world of digital marketing, focusing on strategies for promoting products and services in the digital space.

What they'll learn:

- Fundamentals of online marketing (SEO, social media marketing, email marketing)
- How to create engaging content for blogs, social media, and websites
- Understanding consumer behavior and market trends
- Basics of pay-per-click (PPC) advertising and Google Analytics

1

INTRODUCTION TO CODING (AGES 5 - 17)

This beginner-friendly course introduces young children to basic programming concepts using visual coding tools like Scratch and Blockly.

- Basic problem-solving skills
- How to create interactive stories, games, and animations
- Logical thinking through fun activities

MODULE ONE (3 MONTH)

Introduction to Introduction to Scratch & Block Coding

Objective: Learn the basics of block-based programming.
Topics Covered:

- Introduction to Scratch Interface
- Understanding sprites and backdrops
- Basic motion and events blocks
- Creating simple animations
- Introduction to loops and conditionals
- Using the "when clicked" and "forever" blocks

Project: Create a simple animation using motion blocks and sprites.

MODULE TWO (3 MONTH)

Storytelling with Scratch
Objective: Build interactive stories and animations.
Topics Covered:

- Creating and animating characters
- Using looks and sound blocks
- Introduction to broadcasting and message handling
- Sequencing events to create storylines
- Implementing simple dialogue between characters
- Adding sound effects and background music

Project: Create an interactive story with character dialogues and sound effects.

1

MODULE THREE (3 MONTH)

Introduction to Game Development
Objective: Learn how to create simple games.

Topics Covered:

- Understanding variables and score tracking
- Using control blocks for game logic
- Introduction to sensing blocks (detecting collisions)
- Building a basic game loop
- Creating win/loss conditions
- Introduction to timers and countdowns

Project: Build a simple game like "Catch the Falling Objects" using control and sensing blocks.

MODULE FOUR (3 MONTH)

Advanced Game Development

Objective: Create more complex, interactive games.

Topics Covered:

- Advanced use of variables and operators
- Adding multiple levels and increasing difficulty
- Creating and managing clones for multiple objects
- Introduction to lists (arrays)
- Adding power-ups and obstacles
- Improving game mechanics and user experience

Project: Develop a multi-level platformer game with obstacles and rewards.

MODULE FIVE (3 MONTH)

Introduction to Robotics with Scratch
Objective: Learn how to use Scratch to control hardware.

Topics Covered:

- Introduction to Scratch Extensions
- Using Scratch with hardware like Makey Makey and micro
- Building simple interactive projects with physical components
- Understanding inputs and outputs
- Using Scratch to control LEDs, sensors, and motors

Project: Create a simple interactive project that controls an external device (e.g., a buzzer or LED).

MODULE SIX (3 MONTH)

Capstone Project

Objective: Combine all the skills learned to create a comprehensive project.

Project Requirements:

- Design and develop a fully functional game or interactive story
- Incorporate motion, looks, sound, and control blocks
- Implement scoring, multiple levels, and complex logic
- Use variables, lists, and sensing for advanced interactivity
- Optionally integrate with hardware (e.g., micro)

2

INTRODUCTION TO AI, ROBOTICS, AND MACHINE LEARNING (AGES 14 - 17)

Artificial Intelligence (AI) and Machine Learning (ML) are transforming the world, powering everything from virtual assistants to self-driving cars. At The Proxy Academy, we focus on:

- Introducing young learners to the basics of AI.
- Teaching hands-on robotics with sensors and motors.
- Developing problem-solving, analytical thinking, and coding skills.
- Our program blends interactive coding lessons, robotics, and AI concepts in a fun, engaging way, preparing students to shape the future of technology.

MODULE ONE (3 MONTHS)

Introduction to Artificial Intelligence
Objective: Understand the basics of AI and its real-world applications.

Topics Covered:

- What is AI? History and Future of AI
- Introduction to AI technologies in daily life
- Basic concepts: Algorithms, data, and predictions
- Rule-based vs. learning systems
- Simple AI projects: Creating chatbots and virtual assistants

Project: Build a simple chatbot that responds to user inputs.

MODULE TWO (3 MONTHS)

Fundamentals of Machine Learning

Objective: Learn how machines can learn from data and make predictions.

Topics Covered:

- Understanding data: Types, collection, and cleaning
- Introduction to supervised and unsupervised learning
- Data visualization: Graphs and charts
- Building simple predictive models
- Introduction to classification and clustering
- Basic algorithms: Decision trees and K-nearest neighbors

Project: Create a simple predictive model using a dataset of students' grades.

2

MODULE THREE (3 MONTHS)

Deep Learning and Neural Networks

Objective: Explore how neural networks mimic the human brain to solve complex problems.

Topics Covered:

- Introduction to deep learning
- Understanding neurons, layers, and activation functions
- Building basic neural networks
- Introduction to backpropagation
- Applications of neural networks: Image recognition, natural language processing
- Creating simple models using visual programming tools (Scratch AI extensions)

Project: Develop a neural network to classify images (e.g., animals, shapes).

MODULE FOUR (3 MONTHS)

Data Science for AI

Objective: Learn how data powers AI and machine learning models.

Topics Covered:

- What is data science?
- Collecting, analyzing, and interpreting data
- Introduction to data sets and big data
- Exploratory data analysis (EDA)
- Introduction to Python for data analysis
- Using libraries like Pandas and Matplotlib for data visualization

Project: Analyze a dataset and present findings using charts and graphs.

MODULE FIVE(3 MONTHS)

AI in Robotics

Objective: Integrate AI with robotics to create smart, autonomous systems.

Topics Covered:

- Introduction to robotics and AI integration
- Building simple robots and automating tasks
- Using AI to enhance robot functionality
- AI for navigation and obstacle avoidance
- Introduction to sensors and actuators
- Creating robot simulations in Scratch or Python

Project: Build a robot that can navigate a maze using AI algorithms.

2

MODULE SIX (3 MONTHS)

Natural Language Processing (NLP)

Objective: Learn how AI understands and generates human language.

Topics Covered:

- Introduction to NLP and its applications
- Text preprocessing: Tokenization, stopwords
- Sentiment analysis: Understanding emotions in text
- Simple language models
- Using pre-trained models for text generation
- Building voice assistants and text-based games

Project: Develop a voice assistant that responds to simple questions.

MODULE SEVEN(3 MONTHS)

AI Ethics & Safety

Objective: Understand the ethical implications of AI technologies.

Topics Covered:

- AI and bias: How algorithms can be unfair
- Privacy and data security in AI
- The role of AI in society and decision-making
- Fairness in machine learning models
- Legal and social implications of AI
- Encouraging responsible AI development

Project: Present a case study on ethical AI, focusing on bias in a popular AI system.

MODULE EIGHT(3 MONTHS)

Capstone Project

Objective: Combine all learned skills to create an AI-driven project.

Project Requirements:

- Design and develop an AI project that integrates machine learning, data science, and neural networks.
- The project must solve a real-world problem, such as image classification, predictive analysis, or building a smart assistant.
- Use Python and external APIs for data handling and processing.
- Ensure the project is ethical and secure, with proper documentation.
- Version control using GitHub.

3

INTRODUCTION TO GAME DESIGN & BLOCK-BASED CODING (AGES 14 - 17)

TThis programme provides young learners with the knowledge and skills needed to create engaging video games. From basic game design principles to advanced development using popular tools, students will learn how to build interactive and playable games. The curriculum covers core concepts such as 2D/3D design, game physics, coding, and testing.

MODULE ONE (3 MONTHS)

Introduction to Game Design

Objective: Understanding the basics of game creation.

Topics Covered:

- What is a game? Elements of fun and play
- Game genres and player types
- Game design documents: How to plan a game
- Introduction to storytelling in games
- Creating characters and environments
- Introduction to simple game mechanics
- Basic prototyping and wireframing for games

Project: Design and create a simple 2D game prototype on paper.

MODULE TWO (3 MONTHS)

2D Game Development

Objective: Learn to create 2D games using game engines.

Topics Covered:

- Introduction to 2D game engines (e.g., Scratch, Unity 2D)
- Creating sprites and animations
- Programming movement, collisions, and interactions
- Understanding game physics: Gravity, speed, and friction
- Implementing basic game mechanics: Scoring, levels, and power-ups
- Introduction to sound design and integration

Project: Build a fully functional 2D platformer game.

3 MODULE THREE (3 MONTHS)

Introduction to Coding for Games

Objective: Learn how to use coding to create game interactivity.

Topics Covered:

- Introduction to game development languages (e.g., JavaScript, Python)
- Variables, loops, and conditionals in game development
- Understanding game loops
- Handling user input and player interactions
- Basic debugging techniques
- Working with game assets: Importing and organizing assets

Project: Develop a simple interactive game with player controls and scoring.

MODULE FOUR (3 MONTHS)

Advanced 2D Game Mechanics

Objective: Delve into more complex game mechanics and features.

Topics Covered:

- Advanced movement and controls
- Power-ups, health systems, and multiplayer mechanics
- Dynamic difficulty adjustment
- Implementing enemy AI and pathfinding
- Game state management and saving progress
- Integrating animations for complex character actions

Project: Create a multiplayer game with advanced mechanics and AI enemies.

MODULE FIVE(3 MONTHS)

3D Game Development

Objective: Transition from 2D to 3D game design.

Topics Covered:

- Introduction to 3D game engines (e.g., Unity, Unreal Engine)
- Working with 3D models and textures
- Basic 3D physics: Gravity, collisions, and movement
- Creating 3D environments and characters
- Lighting, shading, and camera controls
- Programming basic 3D interactions and mechanics

Project: Build a 3D adventure game with character movement and simple puzzles.

3 MODULE SIX (3 MONTHS)

Game Physics and AI

Objective: Learn how physics and AI enhance gameplay.

Topics Covered:

- Game physics: Forces, velocity, and momentum
- Particle systems: Effects for explosions, water, and fire
- Introduction to artificial intelligence in games
- Programming NPC behavior: Pathfinding, decision-making
- AI for different game genres (e.g., strategy, racing)
- Implementing physics-based puzzles and challenges

Project: Develop a game featuring AI-controlled enemies and physics-based gameplay.

MODULE SEVEN (3 MONTHS)

Game Testing and Debugging

Objective: Ensure game stability and enhance player experience.

Topics Covered:

- Playtesting methods: Gathering feedback from players
- Common bugs and how to fix them
- Debugging tools and techniques in game engines
- Balancing gameplay: Difficulty, pacing, and player satisfaction
- Introduction to game optimization: Performance, load times
- Updating and patching games post-launch

Project: Playtest and debug a game, fixing all known bugs and balancing the gameplay.

MODULE EIGHT (3 MONTHS)

Capstone Project

Objective: Build a complete, polished game using all learned skills.

Project Requirements:

- Develop a game from concept to final product using a 2D or 3D engine.
- Include advanced game mechanics (e.g., AI, multiplayer, physics).
- Implement responsive controls, UI, and animations.
- Perform playtesting, debugging, and optimization.
- The game should include at least 3 levels with increasing difficulty.
- Use version control and collaborative tools (e.g., GitHub) to manage the project.

4

INTRODUCTION TO CYBERSECURITY AND DIGITAL SAFETY (AGES 14 - 17)

The Cybersecurity & Internet Safety Programme is designed to equip young learners with essential knowledge of digital security. This comprehensive course covers everything from understanding online threats to developing practical skills for safe internet usage, ensuring a secure digital presence. Tailored for various age groups, the curriculum ensures a well-rounded understanding of cybersecurity concepts, data protection, and online safety. By the end of the programme, students will have the tools to safeguard their personal information and stay secure online.

MODULE ONE (3 MONTHS)

Introduction to Cybersecurity & Internet Safety

Objective: To understand the basic principles of cybersecurity and online safety.

Topics Covered:

- What is Cybersecurity? Basic concepts and importance.
- Types of Online Threats: Malware, phishing, and viruses.
- Password Safety: How to create strong passwords and keep them secure.
- Safe Browsing: Recognizing secure websites and avoiding dangerous links.
- Introduction to Data Privacy: Protecting personal information online.
- Online Etiquette: Safe communication practices on social media and messaging apps.
- Digital Footprint: Understanding how your online actions are tracked.

Projects:

- Create a personal cybersecurity safety plan for online activities and social media use.

MODULE TWO (3 MONTHS)

Advanced Cybersecurity Concepts

Objective: To gain a deeper understanding of cybersecurity principles and tools.

Topics Covered:

- Encryption Basics: What encryption is and how it works.
- Firewalls and Antivirus Software: How they protect systems from threats.
- Introduction to Network Security: Securing wireless and wired networks.
- Types of Cyber Attacks: Understanding hacking, denial-of-service attacks, and ransomware.
- Two-Factor Authentication (2FA): Adding an extra layer of security to online accounts.
- Identity Theft: Preventing and responding to stolen personal information.
- Understanding Cyber Laws: Introduction to laws governing cyber activity.

Projects:

- Set up a secure home network, including firewalls and antivirus software.

4

MODULE THREE (3 MONTHS)

Protecting Personal Data

Objective: To understand how to protect sensitive personal data from online threats.

Topics Covered:

- What is Personal Data? Recognizing what information is considered personal.
- Data Breaches: How they happen and how to prevent them.
- Privacy Settings: Configuring privacy settings on social media and other platforms.
- Securing Devices: Passwords, encryption, and locking devices.
- Introduction to VPNs (Virtual Private Networks): How to browse the web privately.
- Recognizing Phishing Attacks: Identifying fake emails and scams.
- Cloud Security: Safely storing information in the cloud.

Projects:

- Build a secure online profile using privacy best practices on social media.

MODULE FOUR (3 MONTHS)

Introduction to Ethical Hacking

Objective: Learning how ethical hackers help protect systems from malicious attacks.

Topics Covered:

- What is Ethical Hacking? Exploring the role of a white-hat hacker.
- Common Hacking Techniques: Password cracking, vulnerability scanning, and more.
- Penetration Testing Basics: Understanding how to test the security of systems.
- Ethics of Hacking: The differences between ethical and malicious hacking.
- Introduction to Bug Bounties: How companies reward hackers for finding security flaws.
- Social Engineering: How hackers manipulate people into giving up information.
- Basic Tools for Ethical Hacking: Overview of common tools and software.

Projects:

- Conduct a simulated penetration test on a mock website or application.

4

MODULE FIVE (3 MONTHS)

Introduction to Cyber Forensics

Objective: Understanding how to investigate and respond to cyber incidents.

Topics Covered:

- What is Cyber Forensics? Basics of investigating cybercrimes.
- Digital Evidence Collection: How to gather and preserve digital evidence.
- Incident Response: Steps to take after a cyberattack.
- Tracking Hackers: Techniques used to trace online criminals.
- Introduction to Malware Analysis: Understanding how to dissect malicious software.
- Cybersecurity in Law Enforcement: How law enforcement deals with cybercrimes.
- Reporting Cybercrimes: How and when to report online crimes.

Projects:

- Simulate a cyber incident investigation and report on the findings.

MODULE SIX (3 MONTHS)

Internet of Things (IoT) Security

Objective: Securing smart devices connected to the internet.

Topics Covered:

- What is IoT? Understanding connected devices and their role in daily life.
- IoT Vulnerabilities: How smart devices can be hacked.
- Securing Smart Homes: Best practices for keeping IoT devices safe.
- IoT Encryption: How encryption protects connected devices.
- Cybersecurity for Wearables: Securing fitness trackers, smartwatches, and more.
- Managing IoT Updates: Ensuring devices stay secure with regular updates.
- Case Studies: Famous IoT hacks and what we learned from them.

Projects:

- Develop a security plan for securing smart devices in your home.

4

MODULE SEVEN (3 MONTHS)

Introduction to Cybersecurity Careers

Objective: Exploring career opportunities in the field of cybersecurity.

Topics Covered:

- Cybersecurity Career Paths: Ethical hacking, forensics, security analysis, and more.
- Required Skills and Certifications: Overview of industry certifications like CompTIA Security+, Certified Ethical Hacker (CEH), and others.
- Creating a Cybersecurity Portfolio: Showcasing your skills and projects.
- Networking in the Cybersecurity Industry: Building connections and finding mentors.
- Cybersecurity in Various Industries: How cybersecurity is applied in healthcare, finance, and education.
- Introduction to Cybersecurity Competitions: Capture The Flag (CTF) and other events.

Projects:

- Create a career development plan for a role in cybersecurity, including certifications and skills to pursue.

MODULE EIGHT (3 MONTHS)

Capstone Project

Objective: Applying everything learned to develop a comprehensive cybersecurity project.

Project Requirements:

- Design and implement a complete cybersecurity plan for a mock organization, covering threat detection, incident response, data protection, and user safety.
- Utilize tools and techniques from previous modules, including ethical hacking, encryption, and secure network setup.
- Final project to be presented in a report with supporting documentation, including an analysis of potential threats and solutions.

5

INTRODUCTION TO WEB DEVELOPMENT(AGES 9 - 17)

The Frontend Development Programme is designed to equip young learners with essential web development skills. The curriculum is tailored to match various age groups and skill levels, ensuring a well-rounded understanding of key concepts in HTML, CSS, and JavaScript. By the end of the programme, students will be able to build responsive and interactive websites.

MODULE ONE (3 MONTHS)

Introduction to HTML & CSS

Objective: Understanding the structure and presentation of web pages.

- **Topics Covered:**
  - HTML Basics: Elements, tags, and attributes
  - Structuring a webpage: Headings, paragraphs, lists
  - Links, images, and multimedia
  - Introduction to forms: Input types, labels, and submission
  - CSS Basics: Selectors, properties, and values
  - Styling text, colors, backgrounds, and borders
  - Introduction to layout with CSS (box model)
  - Responsive design basics: Introduction to media queries
  - Best practices for writing clean HTML and CSS
  -

Projects: Create a personal webpage with text, images, and links.

MODULE TWO (3 MONTHS)

Advanced HTML & CSS

- Objective: Deepening understanding of advanced HTML elements and mastering CSS layouts.

Topics Covered:

- Semantic HTML: Proper structure and accessibility
- Forms: Validation, accessibility, and advanced input types
- CSS Flexbox: Building responsive layouts
- CSS Grid: Creating complex web layouts
- Responsive Design: Mobile-first approach
- CSS Animations and transitions
- Pseudo-classes and pseudo-elements
- Using external fonts and icon libraries (Google Fonts, FontAwesome)
- Basic SEO principles for HTML structure

Projects: Create a responsive multi-page portfolio website using advanced HTML and CSS techniques.

5

MODULE THREE (3 MONTHS)

Introduction to JavaScript

- **Objective:** Learning to add interactivity to websites using JavaScript.

- **Topics Covered:**
  - JavaScript Basics: Variables, data types, and operators
  - Control structures: Conditionals, loops
  - Functions and events
  - Introduction to the Document Object Model (DOM)
  - Manipulating HTML and CSS with JavaScript
  - Debugging JavaScript code
  - Basic form validation with JavaScript
  -

Projects: Create an interactive quiz with basic JavaScript functionality.

MODULE FOUR (3 MONTHS)

JavaScript: Intermediate Concepts

- **Objective:** Expanding knowledge of JavaScript to handle more complex tasks.

Topics Covered:

- Arrays and objects
- Advanced DOM manipulation
- Event handling: Click, hover, submit
- Functions: Arrow functions, callbacks
- Introduction to localStorage and sessionStorage
- Basic error handling
- Introduction to APIs and fetching data
- Modularizing JavaScript code

Projects: Build a weather application that fetches real-time data from an API.

MODULE FIVE (3 MONTHS)

- **Introduction to Version Control**
  - **Objective:** Understanding the basics of version control and collaboration.
  - **Topics Covered:**
    - Introduction to Git and GitHub
    - Setting up a repository
    - Basic Git commands: Clone, commit, push, pull
    - Branching and merging
    - Collaborating on projects using GitHub
    - Managing repositories: Issues, pull requests

Projects: Collaborate on a class-wide project, contributing to a shared GitHub repository.

5

MODULE SIX(3 MONTHS)

Responsive Web Design and CSS Frameworks

- **Objective:** Learning how to build fully responsive websites using CSS frameworks.
- **Topics Covered:**
  - Deep dive into responsive design techniques
  - Introduction to Bootstrap framework
  - Bootstrap grid system
  - Responsive navigation menus
  - Customizing Bootstrap components
  - Introduction to Tailwind CSS (optional)
  - Utilizing design systems for consistent UI

Projects: Build a fully responsive blog using Bootstrap or Tailwind CSS.

MODULE SEVEN (3 MONTHS)

JavaScript Frameworks

- Objective: Exploring JavaScript frameworks and building dynamic web applications.
- Topics Covered:
  - Introduction to React
  - Understanding components, props, and state
  - JSX syntax
  - Handling events and form data in React
  - Introduction to React Hooks
  - Using external APIs in React
  - Basic state management

Projects: Build a simple to-do list application using React.

MODULE EIGHT (3 MONTHS)

Capstone Project

- **Objective:** Bringing together all learned concepts to build a full-fledged web application.
- **Project Requirements:**
  - Students will design and develop a fully functional web application, utilizing HTML, CSS, JavaScript, and a frontend framework (React).
  - The project should include at least 3 pages, responsive design, form functionality, and interaction with an external API.
  - Version control and project management using Git and GitHub will be required.

6

INTRODUCTION TO ILLUSTRATION DESIGN (AGES 9 - 17)

The Illustration Design Programme is tailored for young learners passionate about visual storytelling and creative expression. Over the course of two years, students will develop essential skills in digital illustration, from mastering drawing techniques to creating compelling designs for various digital platforms. By the end of the programme, students will be able to create professional-grade illustrations, explore different mediums, and build an impressive portfolio.

MODULE ONE (3 MONTHS)

Introduction to Drawing Fundamentals

Objective: Building foundational drawing skills and understanding basic illustration principles.

Topics Covered:

- Drawing Basics: Shapes, lines, and forms
- Understanding proportions and anatomy
- Light and shadow: Creating depth and dimension
- Perspective drawing: 1-point, 2-point, and 3-point perspectives
- Introduction to composition and layout
- Color theory basics: Understanding hue, saturation, and value
- Tools and materials for traditional and digital drawing

Projects: Create a basic sketchbook showcasing line art, simple shading, and various forms.

MODULE TWO (3 MONTHS)

Digital Drawing and Tools

Objective: Transitioning from traditional to digital drawing using illustration software.

Topics Covered:

- Introduction to digital illustration tools (Adobe Illustrator, Procreate, or similar)
- Setting up a digital canvas: Resolution, file formats, and layers
- Digital brushes and tools: Pencils, inks, and textures
- Working with layers and layer modes
- Digital inking techniques: Clean lines and smooth edges
- Creating digital sketches and refining them
- Using grids and guides for precise layouts

Projects: Design a digital character or object, incorporating basic digital tools and techniques.

MODULE THREE(3 MONTHS)

Advanced Digital Illustration Techniques

Objective: Enhancing digital art skills and learning to create detailed illustrations.

Topics Covered:

- Advanced inking and coloring techniques
- Using masks and clipping paths for complex designs
- Creating textures and patterns in illustrations
- Detailed shading techniques (cell shading and soft shading)
- Understanding vector vs raster illustration
- Introduction to stylization: Cartoon vs realistic drawing
- Exploring different art styles (e.g., anime, realism, surrealism)

Projects: Create a detailed digital portrait or landscape illustration.

MODULE FOUR (3 MONTHS)

Illustration for Storytelling

Objective: Learning how to use illustration for storytelling and narrative creation.
Topics Covered:

- Understanding visual storytelling techniques
- Character design basics: Personality, expression, and movement
- Storyboarding and composition for comics and animations
- Creating mood and emotion with color and lighting
- Using illustrations to convey action and plot
- Paneling and sequencing for graphic narratives
- Creating dynamic illustrations that tell a

Projects: Design and illustrate a short comic or storyboard.

MODULE FIVE (3 MONTHS)

Introduction to Graphic Design and Typography
Objective: Combining illustration with graphic design concepts for effective visual communication.

Topics Covered:

- Introduction to typography: Fonts, typefaces, and text layout
- Combining text and illustration for posters and advertisements
- Understanding visual hierarchy and balance
- Designing logos and icons with illustrative elements
- Color theory in graphic design: Contrast and harmony
- Creating cohesive designs for branding purposes
- Introduction to vector design in Adobe Illustrator (or similar software)

Projects: Create a poster design for a fictional event, combining illustration and typography.

6 MODULE SIX(3 MONTHS)

Illustrating for Digital Platforms

Objective: Adapting illustrations for websites, social media, and mobile applications.

Topics Covered:

- Designing illustrations for web and mobile interfaces
- Understanding screen resolution, aspect ratios, and optimization
- Creating user interface (UI) elements: Icons, buttons, and banners
- Illustrations for social media: Thumbnails, headers, and posts
- Motion graphics and simple animations for the web
- Responsive design: Adapting illustrations for different screen sizes
- Best practices for exporting digital illustrations (file formats and compression)

Projects: Design a series of illustrations for a mobile app interface.

MODULE SEVEN (3 MONTHS)

3D Illustration and Mixed Media

Objective: Exploring 3D illustration techniques and blending traditional with digital art.

Topics Covered:

- Introduction to 3D illustration: Tools and software (Blender or similar)
- Modeling simple shapes and objects in 3D
- Texturing and lighting in 3D environments
- Combining 2D and 3D elements in a single composition
- Introduction to mixed media: Combining photography, traditional art, and digital illustration
- Using 3D assets in 2D illustrations
- Creating mockups and product designs using 3D elements

Projects: Create a 3D-rendered object or scene and incorporate it into a 2D illustration.

MODULE EIGHT (3 MONTHS)

Capstone Project

Objective: Bringing together all learned concepts to create a comprehensive portfolio piece.
Project Requirements:

- Students will design and develop a full illustration project, either for print or digital, showcasing skills in drawing, digital tools, graphic design, and storytelling.
- The final project should include at least 3 different illustrations (character design, environment design, and a storyboard or narrative piece).
- Students must demonstrate proficiency in color theory, composition, and digital illustration tools.
- The project will require a presentation of the design process and the final output.

7

INTRODUCTION TO DATA ANALYSIS (AGES 9 - 17)

The Data Analysis Programme is designed to provide young learners with foundational and advanced skills in data analytics. The curriculum is tailored to meet different age groups and skill levels, ensuring a thorough understanding of essential concepts such as data collection, visualization, statistical analysis, and reporting. By the end of the programme, students will have the tools to handle real-world data and extract meaningful insights.

MODULE ONE (3 MONTHS)

Introduction to Data and Excel

Objective: Learn basic data handling using spreadsheets and understand key concepts of data organization.

Topics Covered:

- Introduction to Data: Types, sources, and importance
- Excel Basics: Navigation, cells, rows, and columns
- Basic Formulas: SUM, AVERAGE, COUNT
- Sorting and filtering data
- Introduction to charts: Bar, line, and pie charts
- Data entry and data cleaning basics
- Best practices for organizing data
- Introduction to data ethics and privacy

Projects:
Create a personal expense tracker using Excel or Google Sheets.

MODULE TWO (3 MONTHS)

Data Visualization with Excel & Google Sheets

Objective: Deepen understanding of creating impactful visualizations and interpreting data.

Topics Covered:

- Advanced charting: Histograms, scatter plots, and line graphs
- Formatting and styling charts for better visualization
- Conditional formatting
- Pivot Tables: Summarizing and analyzing large datasets
- Introduction to dashboards: Combining multiple charts for reporting
- Introduction to storytelling with data
- Basic data interpretation skills

Projects:
Create a sales performance dashboard using pivot tables and advanced charting tools.

MODULE THREE(3 MONTHS)

Introduction to Python for Data Analysis

Objective: Learn to use Python for basic data analysis tasks.

Topics Covered:

- Introduction to Python and IDE setup
- Variables, data types, and operators in Python
- Working with lists and dictionaries
- Basic control structures: Loops and conditionals
- Introduction to Jupyter Notebooks
- Reading and writing data in CSV format
- Introduction to libraries: NumPy and Pandas
- Basic data manipulation using Pandas

Projects:
Analyze a dataset using Python, including data cleaning and generating basic insights.

MODULE FOUR (3 MONTHS)

Intermediate Python for Data Analysis

Objective: Build on Python skills to handle more complex datasets and operations.

Topics Covered:

- Advanced data manipulation with Pandas: Grouping and aggregating
- Handling missing data and duplicates
- Introduction to data visualization with Matplotlib and Seaborn
- Creating basic plots: Line plots, scatter plots, and bar charts
- Introduction to descriptive statistics: Mean, median, mode, and standard deviation
- Data cleaning best practices
- Working with time series data

Projects:
Create a weather trend analysis using real-time data from a CSV file.

MODULE FIVE (3 MONTHS)

Introduction to SQL for Data Management
Objective: Understand database concepts and how to interact with databases using SQL.
Topics Covered:

- Introduction to databases and relational models
- SQL basics: SELECT, WHERE, and filtering data
- Aggregation functions: COUNT, SUM, AVG, MIN, MAX
- Joins: INNER, LEFT, RIGHT
- Inserting, updating, and deleting records
- Importing and exporting data using SQL
- Basic data normalization principles
- Introduction to database design

Projects:
Build a student management database and use SQL queries to analyze student performance.

7

MODULE SIX (3 MONTHS)

Data Visualization with Tableau

Objective: Learn to create professional data visualizations and dashboards using Tableau.

Topics Covered:

- Introduction to Tableau and setting up data sources
- Building basic visualizations: Bar, line, and pie charts
- Customizing visual elements and interactivity
- Combining data sources: Joins and blends
- Creating calculated fields for more advanced analysis
- Building dashboards and storytelling with Tableau
- Sharing and publishing Tableau dashboards

Projects:

Create an interactive sales dashboard in Tableau using sample datasets.

MODULE SEVEN (3 MONTHS)

Introduction to Statistical Analysis

Objective: Learn basic statistical concepts and apply them to data analysis.

Topics Covered:

- Introduction to statistics: Types of data, population, and sample
- Measures of central tendency: Mean, median, mode
- Measures of dispersion: Range, variance, and standard deviation
- Introduction to probability and distributions
- Hypothesis testing: Z-test, t-test
- Correlation and regression analysis
- Introduction to statistical analysis tools (Excel, Python)

Projects:

Perform a statistical analysis on a given dataset, identifying correlations and trends.

MODULE EIGHT (3 MONTHS)

Capstone Project

Objective: Consolidate all learning into a comprehensive data analysis project.

Project Requirements:

- Students will analyze a real-world dataset using Python, SQL, and Tableau
- The project should include data cleaning, visualization, statistical analysis, and reporting
- Students will create a final presentation showcasing their findings using Tableau or other tools
- Collaboration and version control using Git and GitHub will be required

8

INTRODUCTION TO GRAPHICS DESIGN (AGES 9 - 17)

The Graphic Design Programme at The Proxy Academy is tailored to develop creativity and technical skills in young learners. Over the course of two years, students will explore a wide range of design principles and software, progressing from basic drawing techniques to advanced digital design using industry-standard tools. This comprehensive curriculum is designed to inspire creative expression, develop critical thinking, and prepare students for potential careers in graphic design.

MODULE ONE (3 MONTHS)

Introduction to Graphic Design Principles

Objective: **Understanding the basic principles of design and** developing visual communication skills.

Topics Covered:

- Introduction to design: What is graphic design?
- Elements of design: Line, shape, color, texture, and space
- Principles of design: Balance, contrast, alignment, repetition, and proximity
- Introduction to typography: Typefaces, fonts, and basic text alignment
- Color theory: Understanding color relationships and harmonies
- Visual hierarchy and composition
- Introduction to visual storytelling and branding

Projects:
Create a simple poster design focusing on typography and color theory.

MODULE TWO (3 MONTHS)

Introduction to Digital Design Tools

Objective: Gaining familiarity with popular graphic design software.

Topics Covered:

- Overview of design software (Adobe Photoshop, Illustrator, Canva, etc.)
- Introduction to vector and raster graphics
- Basic photo editing: Cropping, resizing, and color adjustments
- Working with layers and masks in Photoshop
- Creating shapes and illustrations in Illustrator
- Understanding file formats: JPEG, PNG, SVG, and more
- Design workflows: From concept to finished product

Projects:
Design a digital flyer using Adobe Photoshop or Illustrator, incorporating photos, shapes, and text.

MODULE THREE(3 MONTHS)

Advanced Typography and Layout Design

Objective: Mastering advanced typography and creating visually appealing layouts.

Topics Covered:

- Advanced typography: Font pairing, kerning, leading, and tracking
- Creating text-based designs
- Layout design principles: Grids, margins, and alignment
- Designing for print vs. digital: Differences and best practices
- Creating engaging compositions using typography and imagery
- Introduction to brochures, posters, and magazine layouts

Projects:
Design a two-page magazine spread with a focus on layout, typography, and imagery.

MODULE FOUR (3 MONTHS)

Illustration and Icon Design

Objective: Developing skills in illustration and creating custom icons.
Topics Covered:

- Basic drawing techniques and digital illustration
- Introduction to Adobe Illustrator's pen tool
- Creating custom illustrations and vector art
- Designing icons for web and mobile applications
- Scaling vector designs for different platforms
- Incorporating illustrations into branding projects

Projects:
Create a set of custom icons and a small digital illustration for a mobile app interface.

MODULE FIVE(3 MONTHS)

Branding and Logo Design

Objective: Understanding branding and designing logos that communicate brand identity.

Topics Covered:

- The importance of branding: Visual identity and messaging
- Logo design principles: Simplicity, scalability, and recognition
- Researching and sketching logo concepts
- Creating and refining logo designs in Adobe Illustrator
- Introduction to brand style guides: Color palettes, fonts, and visual elements
- Designing brand assets: Business cards, letterheads, and social media templates

Projects:
Design a complete brand identity for a fictional company, including a logo, business card, and social media post.

8

MODULE SIX (3 MONTHS)

Advanced Digital Illustration

Objective: Enhancing skills in advanced digital illustration techniques.

Topics Covered:

- Exploring different illustration styles: Flat design, realism, and abstract
- Creating detailed vector illustrations
- Working with gradients, shadows, and textures in Adobe Illustrator
- Storyboarding for digital illustrations and comics
- Combining illustration with graphic design for posters and websites
- Introduction to animation principles for graphic design (GIFs, short animations)

Projects:

Create a digital illustration for a product advertisement, focusing on depth, texture, and storytelling.

MODULE SEVEN (3 MONTHS)

Designing for Web and Social Media

Objective: Learning to create visuals for web platforms and social media.

Topics Covered:

- Web design basics: Graphics for websites and UI/UX
- Designing banners, sliders, and web elements
- Introduction to social media marketing and graphic design
- Designing social media posts and ads for platforms like Instagram, Facebook, and Twitter
- Creating consistent visuals for brand identity across platforms
- Optimizing designs for various screen sizes and resolutions
- Understanding user engagement through visual design

Projects:

Design a complete social media campaign, including profile banners, story graphics, and ad visuals.

MODULE EIGHT (3 MONTHS)

Capstone Project

Objective: Applying all skills learned to design a comprehensive graphic design project.

Project Requirements:

- Students will create a full visual identity for a brand, including a logo, website mockup, social media assets, and a printed brochure.
- The project should include at least 3 distinct deliverables, showing proficiency in Adobe Photoshop, Illustrator, and design principles.
- Students must present their design process, from initial concept to final product, with an emphasis on branding and digital marketing.

9

INTRODUCTION TO MOBILE APP DEVELOPMENT (AGES 9 - 17)

This comprehensive programme equips students with essential mobile app development skills using both Android and iOS platforms. Learners will master key concepts in UI/UX design, programming languages like Kotlin and Swift, and mobile-specific APIs. By the end of the programme, students will be able to build functional and user-friendly mobile applications.

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MODULE ONE (3 MONTHS)

Introduction to Mobile App Development

Objective: Understanding mobile app structure, platforms, and tools.

Topics Covered:

- Overview of Android and iOS platforms
- Introduction to Integrated Development Environments (IDEs) like Android Studio and Xcode
- App design fundamentals: UX/UI
- Setting up development environments
- Creating simple UI elements (buttons, text inputs, etc.)
- Basic app navigation
- Best practices in mobile development

Project: Create a simple mobile app with basic UI elements.

MODULE TWO (3 MONTHS)

Introduction to Programming for Mobile

Objective: Learning core programming concepts for mobile apps.

Topics Covered:

- Introduction to Kotlin (for Android) and Swift (for iOS)
- Variables, data types, and operators
- Control flow (conditionals, loops)
- Functions and methods
- Basic object-oriented programming concepts
- Handling user input
- Debugging basics

Project: Build a basic calculator app using Kotlin or Swift.

MODULE THREE (3 MONTHS)

Advanced Mobile Programming Concepts

Objective: Deepening programming knowledge and building interactive apps.

Topics Covered:

- Advanced data structures: Arrays, lists
- Lifecycle of a mobile app
- Managing app states
- Working with APIs to fetch data
- Handling data persistence with local databases
- Debugging and troubleshooting

Project: Create a weather app that fetches real-time data from an API.

MODULE FOUR (3 MONTHS)

Mobile User Interfaces (UI) and Design

Objective: Enhancing UI/UX skills for mobile app development.

Topics Covered:

- Designing mobile-friendly user interfaces
- Responsive design for different screen sizes
- Advanced UI elements: Grids, cards, sliders
- Animations and transitions in UI
- Accessibility in mobile design
- Introduction to Material Design (Android) and Human Interface Guidelines (iOS)

Project: Design and build an interactive to-do list app with a custom UI.

MODULE FIVE (3 MONTHS)

Data Management and Local Storage

Objective: Understanding data storage and handling in mobile apps.

Topics Covered:

- Using local databases (SQLite, Room)
- Working with shared preferences
- Saving user data across sessions
- Best practices for data security
- Offline app functionality
- Data synchronization techniques

Project: Build a note-taking app that saves data locally and syncs between sessions.

MODULE SIX (3 MONTHS)

Working with APIs and Networking

Objective: Learning how to connect mobile apps to external services.
Topics Covered:

- Introduction to RESTful APIs
- Making network requests in mobile apps
- Parsing JSON data
- Handling asynchronous tasks
- Managing API keys and security
- Error handling in network requests
- Using third-party APIs (e.g., Google Maps, Firebase)

Project: Develop a location-based app that integrates with Google Maps API.

MODULE SEVEN (3 MONTHS)

Mobile App Deployment & Version Control

Objective: Preparing apps for release and mastering collaboration tools.

Topics Covered:

- Version control basics (Git, GitHub)
- Managing app versions and updates
- Creating app bundles for Android and iOS
- Testing and debugging before release
- Publishing apps on Google Play Store and Apple App Store
- Understanding app store guidelines and requirements

Project: Collaborate on a class-wide app project and publish the app on the Play Store or App Store.

MODULE EIGHT (3 MONTHS)

Capstone Project

Objective: Combining all concepts learned to build a final mobile application.
Project Requirements:

- Design and develop a fully functional mobile app (minimum of 3 screens)
- Implement core features: UI/UX design, local data storage, and API integration
- Use version control to track progress
- Present the final app and prepare it for app store deploymen

10

INTRODUCTION TO DIGITAL MARKETING (AGES 9 - 17)

The Digital Marketing Programme is designed to introduce students to core concepts of digital marketing. From social media strategies to SEO and content creation, this course provides young learners with a solid foundation in the world of online marketing, empowering them to harness digital tools effectively.

MODULE ONE (3 MONTHS)

Introduction to Digital Marketing

Objective: Understanding the fundamentals of digital marketing.

Topics Covered:

- What is digital marketing? Overview and significance
- Introduction to key platforms: Facebook, Instagram, Google, YouTube
- Creating a digital marketing plan
- Identifying target audiences and demographics
- Introduction to content marketing: What makes content engaging?
- Overview of marketing funnels: Awareness, consideration, conversion
- Online marketing best practices

Project: Create a basic marketing plan for a product or service using social media platforms.

MODULE TWO (3 MONTHS)

Social Media Marketing

Objective: Learning how to leverage social media for business growth.

Topics Covered:

- Understanding different social media platforms: Facebook, Instagram, Twitter, LinkedIn
- Setting up and managing social media accounts
- Creating engaging posts (text, images, and video content)
- Introduction to paid social media advertising
- Metrics and analytics: Understanding social media insights
- Building a social media strategy
- Creating and managing content calendars
- Best practices for engagement and community management

Project: Develop and schedule a month-long social media campaign for a hypothetical business.

MODULE THREE (3 MONTHS)

Introduction to SEO & Content Creation

Objective: Learning how to optimize content for search engines.

Topics Covered:

- What is SEO? Importance in digital marketing
- On-page and off-page SEO strategies
- Keyword research basics: Finding the right keywords
- Writing SEO-friendly content: Blogs, articles, and web pages
- Meta descriptions and title tags
- Introduction to backlinks and link building
- Using SEO tools: Google Search Console, Yoast SEO
- SEO analytics: Tracking performance

Project: Write and optimize a blog post for search engines, incorporating relevant keywords.

MODULE FOUR (3 MONTHS)

Email Marketing

Objective: Understanding how to create and manage effective email campaigns.

Topics Covered:

- Introduction to email marketing
- Setting up an email marketing platform (e.g., Mailchimp)
- Building email lists and segmenting audiences
- Writing engaging email content: Subject lines, body content, CTAs
- Email marketing automation
- Metrics: Open rates, click-through rates, and conversions
- A/B testing in email marketing
- Best practices for maintaining engagement

Project: Design and launch an email marketing campaign with automated follow-ups for a business idea.

MODULE FIVE (3 MONTHS)

Introduction to Paid Advertising

Objective: Exploring paid digital marketing tactics.
Topics Covered:

- Introduction to pay-per-click (PPC) advertising
- Google Ads: Creating search and display campaigns
- Facebook and Instagram ads: Setting up and targeting audiences
- Budgeting for ad campaigns
- Crafting compelling ad copy and visuals
- Introduction to remarketing
- Tracking campaign performance: CPC, CTR, conversions

Project: Create a PPC campaign for a hypothetical product using Google Ads or Facebook Ads.

MODULE SIX (3 MONTHS)

Analytics and Data-Driven Marketing

Objective: Learning how to track and analyze marketing efforts.
Topics Covered:

- Introduction to Google Analytics
- Setting up and interpreting key metrics
- Audience insights: Understanding demographics and behavior
- Measuring campaign effectiveness
- Conversion tracking and goal setting
- Data-driven decision making
- Creating marketing reports
- Introduction to A/B testing

Project: Analyze a digital marketing campaign's performance using Google Analytics and suggest optimizations.

MODULE SEVEN (3 MONTHS)

Content Creation and Influencer Marketing

Objective: Creating high-quality digital content and leveraging influencers.
Topics Covered:

- Introduction to content marketing strategies
- Creating compelling blog posts, infographics, and videos
- Using storytelling in marketing
- Basics of video editing and graphic design (Canva, iMovie)
- Introduction to influencer marketing
- Finding and collaborating with influencers
- Creating influencer contracts and tracking performance
- Authenticity and brand alignment in influencer partnerships

Project: Create a comprehensive content plan and collaborate with a hypothetical influencer for a product launch.

MODULE FIVE (3 MONTHS)

Capstone Project
Objective: Combining all skills learned to create a full digital marketing strategy.

Project Requirements:

- Develop a complete digital marketing strategy for a product or service
- Incorporate social media, SEO, email marketing, and paid ads
- Track and analyze campaign performance using analytics tools
- Present the strategy in a detailed report, including audience analysis, campaign goals, and expected outcomes

PROGRAM PACKAGES

Group Classes

- At least 3 in a class
- 2 hours per sessions
- Twice a week
- We fix a suitable data for classes to start
- For every age group except 7 year olds and below

- **₦56,000 / MONTH**

Custom Package

This is based on requests from clients. Some may decide to have their classes 5 times , we send them quotations based on their requests.

Personalized Classes

- One-on-one with a tutor
- 1 hour per sessions
- Twice a week
- Parent can choose a suitable data and time that they want to start
- For every age group, especially for 7 year olds and below

- **₦76,000 / MONTH**

Weekend Classes

- Group Weekend Class: 2 hours per session, suitable for all age groups, including children 7 years and below.
- Personal Class: 1 hour per session, offered twice weekend
- Parents can choose the most convenient day and time for their child to start the personal sessions.

- **₦45,000 / MONTH**