

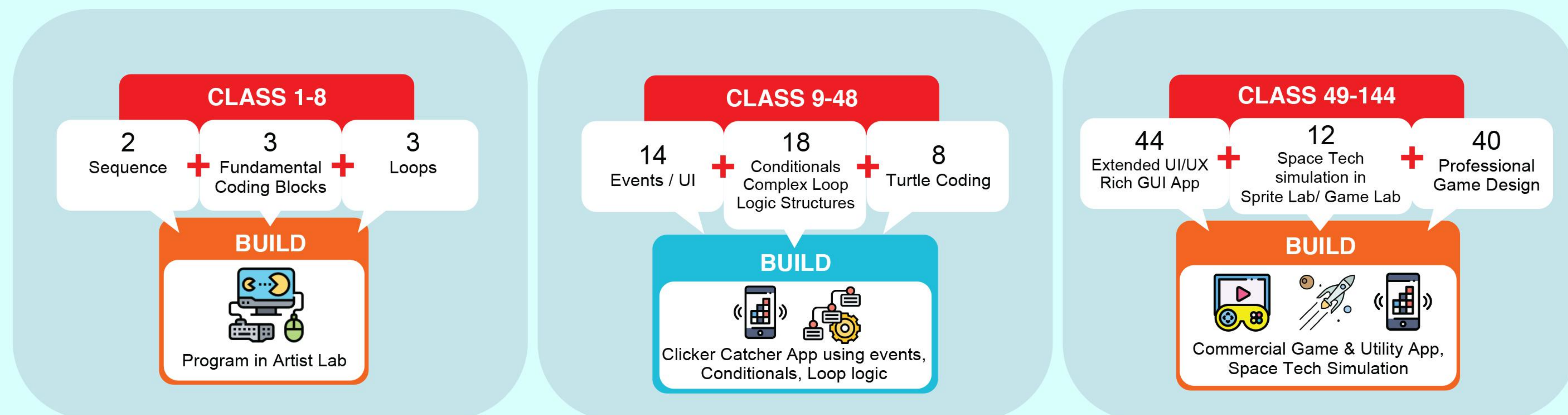
"The course is phenomenal. Not just coding, a new kind of personal expression. My kid's extroversion has gone up from the confidence of creating complex animations and apps in class." -- Kerry Bajaj, Mom, Nutritionist.



Build Commercial-Ready Games & Apps with Full UI/UX Interface

Kids creativity declines 96% from Age 9 since rule-based learning emphasize binary outcomes.

In WhiteHat Jr Coding, kids use foundation of **logic--sequence, loops, commands-- to experiment, stumble, debug, and create commercial-ready apps and games.**



WhiteHat is created by alumni of the following esteemed institutions



FOUNDATION

Basics + Core Programming Concepts + Blockly + Simple Apps

CLASS	CONCEPT LEARNING	BUILDING SKILLS
T	Command Logic-Based commands	Kids create animations By giving computer complex directional commands
1	Sequence Commands, sequence & code structure	Non-linear outcomes Commands and sequence to write a code
2	Flexible Sequencing Decision Making Skills	Puzzle solving Ways to solve a problem
3	Code Debugging Fixing logic flaws in code	Create program outcomes Correct mistakes in the algorithm
4	Introductory Loops Program having fewer lines of code	Creator confidence Loops to replace long lines of code with short
5	Loop Sequences Solve complex puzzles	Loop sequences to program Write programs with loops
6	Logic Logic & Abstract Thinking	Form shapes, alphabets Create 2-dimensional art forms
7	Loops Complex puzzles are created on foundation	Puzzles Loop can make instruction more efficient
8	Professional Art Logic for significant creative endeavours	Sequence, algorithms & loops Program Code to develop ALIEN and SPACESHIP in artist lab
9	Complex Loops Commands to write program	Constructs, development Star wars adventure activity
10	Deep Programming Programming practice with activities	Implement programming Deepening programming practice
11	Event Interactive Animation with events	User interaction Create story with a program
12	Pair Programming Pair programming and build their story	Concept of pair Design and Code
13	Action Events that correspond to user action	Pair programming Create an animation story
14	Nested Loops Solutions by recognizing repetition	Create efficient solutions Learn to recognize systems
15	Text Command Iterative Conditional Loop	IPO processing cycle Translate direction commands to text input
16	Bounce Game Build first interactive game	Construction & wireframe Learnt concepts & build interactive game

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
17	Debugging Cognition Complex Program debugging	Solve Debug and fix code
18	Conditionals Decision making skills	Criteria definition For conditional evaluation
19	Game User events and interactions	Single player game Flappy bird
20	Binary Strings How computers store and process data	Create Advanced Mobile Game with UI Design
21	Variables Change game dynamics using variables	Star wars game Using variables
22	Extended variables Computer games using variables	Clicker game Ice age scrat clicker game
23	Revision Practice Use concepts learned to solve tricky challenges	Solving challenging puzzles
24	Mobile app Learn app coding	Interactive mobile app
25	While loop Loop constructs to control program flow	Puzzle activities
26	Mobile app Basic GUI to design simple app	Mobile APP - GUI
27	Until Loop & IF Conditions Decisions	Condition Evaluation
28	Mobile App Using Conditionals	Mobile App Using if - Else- Elseif constructs
29	Binary Math Number system	Math puzzles Translate binary to decimal
30	Mobile App WHILE Loops	Mobile app using loops to generate repeat patterns
31	Mobile App Multi screens	Multi screen navigation With navigation to switch screens
32	App clicker game Game app with UI design	Game - app clicker game Events and UI to create a game app

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
33	APP: Score card Score card in a game	Manipulate variables For making a game score-card
34	Extended nested loops	Pattern recognition Efficient solutions by recognizing repetition
35	Extended binary Magic of 0 and 1	Binary graphics Understand binary to decimal conversion to create graphics
36	Computing practice and programming apps	Conditionals and loops for problem solving apps ROCKET Launcher timed loop app
37	An eventful dance factory Dance party animation	Dance Party Animation Computational logic to create a fun dance party animation
38	Intro to turtle programming Fun easy programming style	Fun design Program the turtle pointer to draw shape designs
39	Turtle Programming Little artist code gym	Artist code Turtle programming to generate creative free flowing drawings
40	Button events - Turtle Driver	UI Design and update event handlers in turtle programming
41	Turtle coding	My scenery Turtle commands to build scenic diorama
42	Revision Exercises Frozen and minecraft adventure	Adventure - Challenge Revise concepts learned to solve tricky challenges
43	Recreate Frozen Patterns in turtle code	Frozen Pattern Turtle coding to recreate predefined puzzle patterns
44	Art Code gym Mandala sticker designs	Sticker Design Create gorgeous designs with blocks, loops and digital stickers
45	Open book test Emphasis on doing than memorizing	Puzzle Test Solve actual puzzle to then refer for Turtle coding
46	Game Design - The Chase is on Game Rules	Best practices and effective debugging of logic errors Multi screen chase catch game
47	Game Implementation Apple Grab and Catch That Bee	Game design concepts
48	Game Entrepreneur Final Game Executable	Create Professional Level independent Game

EXPLORATION

RICH GUI + Heavy core logic + Blockly + Animation + Professional Apps

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
49	Space Tech UI Controls	Slider Control-Control size of planets components for improved user interaction
50	Extended UI Controls	Image Control components for improved user interaction
51	Extended UI Controls	Canvas Control components for improved user interaction
52	Extended UI Controls	DropDown Menu control components for improved user interaction
53	Extended UI Controls	Checkbox and Radiobutton controls for improved user interaction
54	Mouse Events in App	App Lab Event handlers for mouse events
55	Mouse Events in App	App Lab Event handlers for mouse events
56	Key Events in App	App Lab Event handlers for mouse events
57	Key Events in App	App Lab Event handlers for mouse events
58	Space Tech -Timed Loops	Timer concepts in App Lab Stop Watch and Counter for Rocket Launch
59	Set Timeout, Clear Timeouts	Timer control concepts in App Lab
60	Variables	Controlling memory with variables
61	Variables	Assign values with variables
62	Variables	Local Vs Global Variables
63	UI elements at run time	Dynamic UI
64	Integration App	Virtual thinking skill - Algorithm

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
65	Hybrid App	Design thinking Skill -UI UX
66	Hybrid App	Creative thinking skill Coding implementation
67	User inputs and Strings	Strings In Apps
68	Boolean Expressions	AND and OR
69	Programming with Data	Data structures Key value pairs
70	Programming with Data	Data structures Key value pairs
71	Functions	Basic repeating code structure
72	Functions	Puzzles in Artist Lab using functions
73	Functions and Return Values	Functions in App
74	Functions and Return Values	Use of functions in App
75	Responsible Use of Internet and Digital Footprint	Exercise caution when on internet
76	Abstraction	Concepts of objects and abstraction
77	Abstraction	Concepts of objects and abstraction
78	Abstraction	Concepts of objects and abstraction
79	Sprites Creation and properties	Sprite Lab interactions Creative Thinking Skill
80	Sprites Costume property	Sprite Lab interactions Creative Thinking Skill

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
81	Space Tech Sprites Actions and Behaviours	Sprite Lab - Black Hole Simulation Creative thinking skill
82	Space Tech Sprites Virtual interactions	Sprite Lab - Solar System Rotation, Revolution Concepts
83	Sprite Lab animations	Sprites in action
84	Sprite Lab animations	Complex sprite movement
85	Space Tech Sprite animations in Game Lab	Collisions in sprites Meteorites crashing simulation
86	Space Tech Sprite animations in Game Lab	Build a game in sprite lab-I Gravity Concept Game
87	Space Tech Sprite animations in Game Lab	Build a game in sprite lab-II Conditionals in Gravity Game
88	Space Tech Sprite animations in Game Lab	Build a game in sprite lab-III Bounce, float, collisions in Gravity Game
89	Custom Sprites	Game Lab
90	Custom Sprites	Game Lab
91	Space Tech Build a story	Sprites in Game Lab Story - Astronaut lost in space
92	Space Tech Build a story	Sprites in Game Lab Story - Astronaut lost in space
93	Code interactive experiences	Sprites and Game Lab Fashionista App
94	Code interactive experiences	Sprites and Game Lab Fashionista App
95	Space Tech Code interactive experiences	Animating Sprites in game lab Journey in Space Animations
96	Space Tech Code interactive experiences	Animating Sprites in game lab Journey in Space Animations

SPECIALIZATION Go CRAZY with Commercial quality games and utility app BLOCKLY + THINKABLE

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
97	Game Design Process	Thinking & Process activities
98	Game Design Process	Thinking & Process activities
99	Game Design	Thinking & Process activities
100	Game Design Thinking, Process Top Down Design	Thinking & Process activities
101	Algorithms and Pseudocode	Sorting Logic Understanding and Analysis
102	Algorithms and Pseudocode	Sorting Logic and Algorithm
103	Algorithms and Pseudocode	Sorting Logic and Algorithm
104	Algorithms and Pseudocode	Sorting Logic and Algorithm
105	Game Implementation	Multiplication Tables MATH Utility
106	Game Implementation	Multiplication Tables Multiplication Table, Calc App
107	Game Implementation	Math Utility Calculator App
108	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.
109	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.
110	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.
111	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.
112	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
113	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.
114	Game and Graphics	Simple challenges game for an object to navigate a maze of obstacles.
115	Play Snake Game	Analyse
116	Play Snake Game	Plan and design
117	Play Snake Game	Algorithm
118	Play Snake Game	Algorithm and Pseudocode
119	Play Snake Game	Code Implementation Game Lab
120	Play Snake Game	Code Implementation Game Lab
121	Play Snake Game	Code Implementation Game Lab
122	Play Snake Game	Test, Debug, Improve Game Lab
123	Play Snake Game	Test, Debug, Improve
124	Tic Tac Toe Game	Analyse
125	Tic Tac Toe Game	Plan and design
126	Tic Tac Toe Game	Algorithm
127	Tic Tac Toe Game	Code Implementation
128	Tic Tac Toe Game	Code Implementation

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
129	Tic Tac Toe Game	Test and Debug
130	Word App Generator	Analysis and design
131	Word App Generator	Analysis - Algorithm
132	Word App Generator	Algorithm and Pseudocode
133	Word App Generator	Code Implementation
134	Word App Generator	Code Implementation
135	Word App Generator	Code Implementation
136	Word App Generator	Test and Debug
137	Word App Generator	Test and Debug
138	Image App	Thunkable Platform
139	Image App	Thunkable Platform
140	Image App	Thunkable Platform
141	Chatbot Trainer App	Thunkable Platform
142	Chatbot Trainer App	Thunkable Platform
143	Chatbot Trainer App	Thunkable Platform
144	Chatbot Trainer App	Thunkable Platform