

"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

CLASS	CONCEPT LEARNING	BUILDING SKILLS
T	Command Block Based Commands, Repeat Loop	Photo frame
1	Sequence Procedural Programming Paradigm	Solving Maze Critical Thinking Skill
2	Algorithm Creating and Applying Algorithms	Analyze and break down puzzle structures
3	Debug Identify and fix logical flaws	Code Debugging
4	Loop Understanding and application of Loop	Optimized programs using Loops
5	Loop Sequences Deep understanding of loops	Puzzle Solving using loops
6	Creative Drawing Practice knowledge of coding concepts learnt	2D shapes Abstract Thinking
7	Data Variables Manipulate Variable Values	Create a Story dialogue using variables
8	Animation, Variables and Events Variable and Event blocks	Create a Storyboard and Animation using variables and events: Creative Thinking
9	Revise Learned Concepts Sequencing, Variable, Algorithm, Loops, Sprites	Program with goal directed actions Logical Thinking
10	Deep Debugging Debugging	Debugging Persistence
11	Conditionals If-then Conditions and decision making	Solve Puzzle Logical Thinking Skill
12	Conditionals If-then-else Conditions	Solve Puzzle Critical Thinking Skill
13	Conditionals, Until Loop Iterative Loop	Solve Puzzle Recursive Thinking Skill
14	Complex Events and Variables Events, Variables	Game Design Single player game
15	Conditionals, Events, Variables, Loop Events, Variables	Game Design Multiplayer game
16	Programming Constructs Events, Variables and Repeat Loop	Professional Game Design Analytical Thinking Skills

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
17	Sprite Animation Events, Variable and Loops	Dance Party Animation Computational Thinking
18	Conditionals While - Do conditions, Nested Loops	Solve Maze Logical Thinking Skill
19	Functions Create function Repeat Loop	Draw Complex Shapes Spatial Reasoning & Iterative Thinking
20	Extended Functions Loops, Nested Functions	Draw Complex shapes Logical Thinking
21	Introduction to Mobile App Development Functions, Set Property - colour, sound	Interactive apps Flashlight App, Animal Sound App
22	Design and Code a Mobile App Design and Code an App - Events, Image, Sound	Greeting Card Structured Thinking Skill
23	Design and Code a Mobile App Design and Code and App - UI Controls, Math	Celestial Weight Calculator Logical Thinking Skill
24	Mobile App Quiz Decision structure	Quiz App Recursive Thinking Skill
25	Reinforcing Concepts While loop, nested loop, if-else, debugging	Complex Pattern Recursive Thinking Skill
26	Binary Art Binary Code	Complex Binary art
27	Variables in Game and Mobile App Customised output based on String Variables	Complex Game & Customised Invite - Critical Thinking
28	Arithmetic Calculation with Variables Events, Numeric Variables	Arithmetic Calculator App Computational Thinking Skill
29	Geometric Calculations with Functions and Variables Events, Numeric Variables, Functions	Geometry Calculator App Computational Thinking Skill
30	Conditionals and Variables If-Else Conditionals, UI Controls and Math Variables	Phone Lock/Unlock App High Order Thinking Skill
31	Data Record with Mobile App Create variables and records	Survey record Analytical Thinking
32	Portfolio of Apps developed Website Wireframe, Create multiple screens home, about me, apps and contact, UI controls	Portfolio of apps and Web Layout Analytical Thinking

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
33	Portfolio of Apps developed Website Wireframe, Create multiple screens home, about me, apps and contact, UI controls	Portfolio of apps and Web Layout Analytical Thinking
34	Random Numbers Variables, Conditionals, Math	Math Quiz Computational Thinking Skills
35	Recursive Loops For Loops	Puzzles & Story Animation Recursive Thinking
36	Recursive Loops For Loops & geometrical shapes	Shapes by loops Recursive and logical Thinking
37	Sprite Animation Drawing and Colouring Sprites, Loops, Events,	Animation games & Stories Creative Thinking Skills
38	Sprite Animation Conditionals, Events, Variables, Functions	Car Racing game Logical Thinking
39	Sprite Animation Sprites, Variables, Loop, Random number, Conditionals	Dance Competition Artistic Thinking
40	Complex Mobile App with Turtle Coding - Variables, For loop, Nested Events, UI controls, Random Number	Art app Creative Thinking
41	Complex Mobile App with Mathematical Concepts Variables, For loop, Nested Events, Functions, Math	Multiplication Tables App Computational Thinking
42	Simulation Game Design Sprites, Location, Random Number, Mouse Events	Fidget Spinner Game Animation Spatial, Critical Thinking
43	Simulation Game Design Sprites, Scaling, Variables, Conditionals, Drawing	Stop watch Computational & Visual Thinking
44	Simulation Game Sprites, Variables, Conditionals, Mouse Events, Functions, Scoring with Math	Social and Environment Awareness Entrepreneurial thinking skills
45	Sorting Simulation Game Sprites, Variables, Conditionals, Mouse Events, Functions, Scoring with Math	Social and Environment Awareness Entrepreneurial thinking skills
46	Guess the Number APP Lab: All Coding Concepts	APP Lab
47	Rock Paper Scissors Functions & Nested if loops	APP Lab
48	Rock Paper Scissors Functions & Nested if loops	APP Lab

EXPLORATION

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
49	SpaceTech - Mission Moon (Rocket Launch -1) Design	Game Lab
50	SpaceTech - Mission Moon (Rocket Launch -2) Simulation and animation	Game Lab
51	SpaceTech - Mission Moon (Rocket Launch -3) Coding	Game Lab
52	Introduction to Data structures - ARRAY Concept	App Lab
53	Score Calculator (Basic Array Implementation) Implementation	App Lab
54	Tiffin Planner App using Arrays - Design Array App	App Lab
55	Tiffin Planner App using Arrays - Dev Array App	App Lab
56	Hot & Cold Game Concept of radial distance and locus	Game Lab
57	Local and Global Variables Revision of variables and introduction to local and global variables	App Lab
58	Local and Global Variables Variable scope and its applications	App Lab
59	Local and Global Variables Reinforcement through quizzing marathon	App Lab
60	Music Playlist 1. Introduction to the concept of Master Data Table 2. Readrecords to build customised login page	App Lab
61	Music Playlist Updatercord to build the add functionality	App Lab
62	Music Playlist Play Screen Configuration	App Lab
63	Pacman I Use groups to build the playground	Game Lab
64	Pacman II Pacman eats pills and scorekeeping	Game Lab

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
65	Pacman III Coding the Ghost	Game Lab
66	Array Revision Reinforce the concept of arrays	App Lab
67	Space Tech - Days, Month, Year Exhibit I: Earth's rotation and days Exhibit II: Moon's rotation and phases	Game Lab
68	Space Tech - Days, Month, Year Exhibit III: Earth's revolution and years	Game Lab
69	Space Tech - Solar Eclipse Exhibit on the science of solar eclipse	Game Lab
70	Superheroes I Create login screen and registration window screen	App Lab
71	Superheroes II Task manager through databases	App Lab
72	Game Design & I/O Camera coordinates in game building	Never-ending Game
73	Game Design & I/O Camera coordinates in game building	Never-ending Game
74	Game Design & I/O Camera coordinates in game building	Never-ending Game
75	Persistence of Vision & Frame Rates Frequency of frame change	Flip Movie in Game Lab
76	Persistence of Vision & Frame Rates Frequency of frame change	Flip Movie in Game Lab
77	Introduction to OOPS Object oriented programming activity/game building	App lab
78	OOPS - Abstraction Concept of abstraction & its applications	App lab/Game Lab
79	OOPS - Inheritance Concept of inheritance & its applications	App lab/Game Lab
80	OOPS - Polymorphism Concept of polymorphism & its application	App lab/Game Lab

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
81	OOPS - Encapsulation Concept of Encapsulation & its application	App lab/Game Lab
82	Native App UI & UX of a native app	
83	Native app String manipulation through event-based programming	Case Converter App
84	Native App: Professional Portfolio UI/UX Design	Professional Portfolio
85	Native App: Professional Portfolio UI/UX Design	Professional Portfolio
86	Native App: Professional Portfolio Basic Front End - Screen Navigation	Professional Portfolio
87	Native App - Hangman Game building through functions and loops	Hangman in Thinkable
88	Native App - Hangman Game building through functions and loops	Hangman in Thinkable
89	Native App - Hangman Game building through functions and loops	Hangman in Thinkable
90	Space Tech - Space Exploration Coding Simulation: Concept of light years	Space Tech Simulation in Thinkable
91	Space Tech - Space Exploration Coding Simulation: Concept of light years	Space Tech Simulation in Thinkable
92	Space Tech - Space Exploration Space Travel Game	Exhibit I Black Holes
93	Space Tech - Space Exploration Space Travel Game	Exhibit II: Worm Holes
94	Space Tech - Space Exploration Space Travel Game	Game
95	Mathemagical Black Holes Number theory via Mathemagical Blackholes	Exhibit Mathemagical Blackholes Simulation
96	Mathemagical Black Holes Number theory via Mathemagical Blackholes	Exhibit Mathemagical Blackholes Simulation

SPECIALIZATION

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
97	Native App: Bulls & Cows Apply String Manipulation to build a single player logic game	Single Player Bulls & Cows
98	Native App: Bulls & Cows Apply String Manipulation to build a single player logic game	Single Player Bulls & Cows
99	Native App: Bulls & Cows Apply String Manipulation to build a multi player logic game	Multi Player Bulls & Cows
100	Native App: Smart Energy UX/UI design components of Thinkable	Energy Saver app
101	Native App: Smart Energy UX/UI design components of Thinkable	Energy Saver app
102	Native App: Smart Energy UX/UI design components of Thinkable	Energy Saver app
103	Revision via Hangman Reinforce the concepts of UI/UX and String Manipulation	Revision via Hangman
104	App Design UX/UI design components of Thinkable	Monkey Maze Game
105	App Coding Event Based Programming with Game UX/UI design	Monkey Maze Game
106	App Coding Event Based Programming with Game UX/UI design	Monkey Maze Game
107	Native App: Memory Match using Arrays Shuffling items in an array via a game of memory	Monkey Maze Game
108	Native App: Memory Match using Arrays Shuffling items in an array via a game of memory	Monkey Maze Game
109	Native App: Memory Match using Arrays Shuffling items in an array via a game of memory	Monkey Maze Game
110	Native App: Stacks & Arrays Concept of LIFO and FIFO	A Game of Stacks
111	Native App: Stacks & Arrays Concept of LIFO and FIFO	A Game of Stacks
112	Speech Recognition: Voice Assisted Native App Concept and applications of Speech Recognition	Voice Assisted Native App

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
113	Speech Recognition: Voice Assisted Native App Concept and applications of Speech Recognition	Voice Assisted Native App
114	Speech Recognition: Voice Assisted Native App Concept and applications of Speech Recognition	Voice Assisted Native App
115	Computer Architecture: Logic gates Concept & Application of AND, OR gates	Circuit Game
116	Computer Architecture: Logic gates Concept & Application of NAND, NOR gates	Circuit Game
117	Computer Architecture: Logic gates Concept & Application of XOR, XNOR gates	Circuit Game
118	Revision via Hangman Reinforce the concepts of arrays, computer architecture (logic gates) and speech recognition	Revision via Hangman
119	Local Storage Databases Create Database Records	Private Investigator/ Crime Mystery App
120	Local Storage Databases Call/Query Database Records	Private Investigator/ Crime Mystery App
121	Local Storage Databases Delete and Update Database Records	Private Investigator/ Crime Mystery App
122	Space Tech: Local Storage Databases on Space Create Spacetech Simulation using Databases	DB enabled Space Tech Simulation
123	Space Tech: Local Storage Databases on Space Create Spacetech Simulation using Databases	DB enabled Space Tech Simulation
124	Space Tech: Local Storage Databases on Space Create Spacetech Simulation using Databases	DB enabled Space Tech Simulation
125	Revision via Hangman Reinforce the concepts of storage databases via a game of hangman concepts of databases - read/query	Revision via Hangman
126	Native App: Professional Portfolio Populating the UX/UI of the Professional Portfolio + Back-end logic	Professional Portfolio
127	Native App: Professional Portfolio Populating the UX/UI of the Professional Portfolio + Back-end logic	Professional Portfolio
128	Revision via Hangman Reinforce the concepts of storage databases via a game of hangman concepts of databases - read/query	Revision via Hangman

CLASS	CONCEPT & LEARNING	BUILDING SKILLS
129	Search Trees: Recursive Functions Recursive functions and search trees	Tic-Tac-Toe
130	Search Trees: Recursive Functions Recursive functions and search trees	Tic-Tac-Toe
131	Search Trees: Recursive Functions Recursive functions and search trees	Tic-Tac-Toe
132	API Integration Introduction to APIs and integration in Thinkable	API Enabled Native Apps
133	API Integration Introduction to APIs and integration in Thinkable	API Enabled Native Apps
134	API Integration Introduction to APIs and integration in Thinkable	API Enabled Native Apps
135	Databases via API Web API integration in Thinkable	Dungeons and Dragons Spells Game App
136	Databases via API Web API integration in Thinkable	Dungeons and Dragons Spells Game App
137	Databases via API Web API integration in Thinkable	Dungeons and Dragons Spells Game App
138	Prebuilt Agent Import Import prebuilt agent into an already existing Thinkable app	Agent import
139	Dialogflow or equivalent platform Build intents for their professional portfolio	AI Chat Bot
140	Dialogflow or equivalent platform Build intents for their professional portfolio	AI Chat Bot
141	Dialogflow or equivalent platform Build intents for their professional portfolio	AI Chat Bot
142	Native App: Professional Portfolio Front-end + Back-end + Chatbot Integration	Chatbot enabled Professional Portfolio
143	Native App: Professional Portfolio Front-end + Back-end + Chatbot Integration	Chatbot enabled Professional Portfolio
144	Native App: Professional Portfolio Front-end + Back-end + Chatbot Integration	Chatbot enabled Professional Portfolio