

# IIT Bombay Mood Indigo Coding Project

Learn

Build

Get Certified

Learn coding with top teachers by building real-world projects and get a certificate from IIT Bombay Mood Indigo

## Program Curriculum for Grades 4 - 5

**Eligibility**  
Grade 1-12

**Program Delivery**  
Online & Offline

**Certificates**  
IIT Bombay Mood Indigo  
STEM.org

**Duration**  
6 months

**Session**  
48 sessions of  
1 Hour each

**Highlights**  
4 Major Projects  
Unlimited doubt sessions





# Scratch & AI | Grade 4 - 5

Unlock the world of technology! Create apps, games, and AI projects with this all-in-one course on app building, game development, Scratch basics & AI fundamentals



## Course Learning Outcome

- ✓ Introduction to Artificial Intelligence
- ✓ Basics of App & Game development
- ✓ Foundations of algorithmic thinking



## Exclusive Benefits

- ✓ Unlimited doubt sessions, 24x7.
- ✓ Build a Game, Application, Animation & an AI model
- ✓ Host your application on Play Store

### Module 1

#### BASIC APPLICATION DEVELOPMENT

Create applications with elegant user interfaces and user interactions.

#### Module Learning Outcomes

- ✓ App Development Fundamentals
- ✓ Operator Proficiency
- ✓ Calculator Creation
- ✓ Randomness and Probability
- ✓ Interactive Application Design
- ✓ Problem-Solving and Logic

Language:  
Block based

Platform:  
Code.org (App Lab)

6 Lessons & 10+ Projects

### Module 2

#### GUI APPS

Craft sophisticated applications like a personalized WhiteBoard app, survey app, all-in-one app, and many more.

#### Module Learning Outcomes

- ✓ Integrated Digital Tools
- ✓ Visual Collaboration and Communication
- ✓ Structured Data Collection
- ✓ Media Organization
- ✓ Rocket Science and Space Exploration

Language:  
Block based

Platform:  
App Lab

6 Lessons & 10+ Projects

### Module 3

#### GAME DEVELOPMENT

Get introduced to Game Lab and immerse yourself in game-based learning.

#### Module Learning Outcomes

- ✓ Introduction to Game Development
- ✓ Character Animation and Storytelling
- ✓ Problem-solving and Level Design
- ✓ Physics and Object Behavior
- ✓ Interactive Conceptualization

Language:  
JavaScript in Block based

Platform:  
Code.org (Game Lab)

6 Lessons & 10+ Projects

### Module 4

#### ADVANCE GAME DEVELOPMENT

Get introduced to JavaScript, Conditionals, Loops, and Functions.

#### Module Learning Outcomes

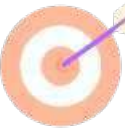
- ✓ Foundations of JavaScript
- ✓ Conditional Logic with Poxo
- ✓ Iterative Problem-Solving
- ✓ Function-Based Programming
- ✓ Space-Themed Major Project

Language:  
JavaScript in Block based

Platform:  
Code.org (Game Lab)

6 Lessons & 10+ Projects





## Module 5

### SCRATCH ADVANCE 1

Learn about Direction Sense, Visuals, Solar System, Transitions, and Conditional Statements and Loops with Scratch

#### Module Learning Outcomes

- ✓ Introduction to Visual Programming
- ✓ Spatial Awareness and Direction Control
- ✓ Creative Visual Expression
- ✓ Astronomical Understanding
- ✓ Seamless Transitions and Animations

Language:  
JavaScript in Block based

Platform:  
Scratch

6 Lessons & 10+ Projects



## Module 6

### SCRATCH ADVANCE 2

Build on your basics of Scratch to develop Games in Scratch.

#### Module Learning Outcomes

- ✓ Microscopy and Scientific Inquiry
- ✓ Artificial Intelligence and Virtual Assistants
- ✓ Game Development and Design
- ✓ Major Project Development
- ✓ Space-Themed Major Project

Language:  
JavaScript in Block based

Platform:  
Scratch

6 Lessons & 10+ Projects

## Module 7

### ARTIFICIAL INTELLIGENCE BASIC

Explore AI with Scratch on aicode101! Discover AI, Decision Trees, and train your own AI model.

#### Module Learning Outcomes

- ✓ Artificial Intelligence Foundations
- ✓ Decision-Making with Decision Trees
- ✓ Emotion Recognition with Image Processing
- ✓ Computer Vision and Image Recognition
- ✓ Language Deciphering with Natural Language Processing
- ✓ Conversational Agents and Chatbots

Language:  
JavaScript in Block based

Platform:  
Scratch (aicode101)

6 Lessons & 10+ Projects

## Module 8

### ARTIFICIAL INTELLIGENCE ADVANCE

Integrate your AI model with your Scratch application and build an advanced application like no other.

#### Module Learning Outcomes

- ✓ Effective Communication and Knowledge Sharing
- ✓ Project Development and Creativity
- ✓ Biometric Security and Face Recognition
- ✓ Programming and Data Manipulation
- ✓ Space-Themed Major Project and Space Science

Language:  
JavaScript in Block based

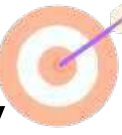
Platform:  
Scratch (aicode101)

6 Lessons & 10+ Projects





# Hear what our students and parent have to say



**Ojas Sharma**

Grade 5, Codingal Student



The IIT Roorkee coding program was incredible! I learned by building real coding projects, and it made learning so much fun.



**Aarav S**

Grade 10, Codingal Student



I collaborated with peers & learned from expert teachers. The IIT Bombay coding competition boosted my creativity, critical thinking, and coding abilities.



**Priyanka Sahni**

Codingal Parent



The IIT Guwahati Hackathon created a strong foundation for my daughter's coding journey. The collaborative learning environment was remarkable



**Riya**

Grade 4, Codingal Student



I found Codingal's competitions and projects engaging. I've built my own website and learned so much about how the internet works. I'm enjoying my classes

**Got questions?  
Contact us  
anytime.**

Send us a message



[support@codingal.com](mailto:support@codingal.com)

