

**Grade 9** 

**Hello! Young Coders** 

# Get ready to Fall in love with coding



## **About Codingal**

Codingal offers online classes for K-12 students to learn coding by creating apps, building games and developing websites.

We offer live coding classes taught by all-star instructors with a computer science background.

Coding has been shown to have numerous benefits in multiple studies. According to one study, children's cognitive skills improved sevenfold with coding.

In addition to improving their computational abilities and logical thinking, coding improves their writing skills as well.

As a result, kids who begin coding at a young age will have a definite advantage.

#### **Our Mission**

To inspire kids to fall in love with coding



## Founder's Note





Teaching coding to kids is a huge responsibility. Our teachers and curriculum ensure we understand and own this fully.

#### Vivek Prakash

Co-founder & CEO B.Tech & M.Tech, IIT Roorkee





Learning to code is not just about becoming a computer scientist. Coding empowers children at multiple levels.

### **Satyam Baranwal**

Co-founder & COO B.Tech, IIT Dhanbad









## Codingal empowers kids to become innovators of the future

### Why should kids learn coding?



Coding is the new literacy.

In recent years, technology has made inroads into all aspects of our lives. We've come to rely on websites, apps and gadgets to help us through the day, be it at work or at home.

Given the enormous role technology is going to play in the future, teaching kids to code is the best way to prepare them for success.

## What are the benefits of learning coding?



- Helps develop problem solving skills
- Boosts analytical and structural thinking abilities
- Enhances creativity and imagination
- Helps find innovative solutions to real-life issues
- Helps develop resilience

### Why this curriculum?



- Accredited by STEM.org
- Rated 4.6 out of 5 by students and parents
- Based on BIDE (Broad, Inspiring, Deep and Efficient)
   model
- Focus on STEAM (Science, Technology, Engineering, Arts, Math) subjects
- Enhances cognitive, logical, and computational skills
- Makes learning highly effective, interactive, and fun







## Foundation of our curriculum

#### Accredited by



## **BLOOM**

Bloom's Taxonomy is a standard guideline for K-12 content development, which includes 6 stages of learning: Remember, understand, apply, analyze, evaluate and create.

#### BIDE

The BIDE (Broad, Inspiring, Deep and Efficient) model has been developed by Codingal in-house to ensure that our curriculum caters to the unique learning style of every child.



## **STEAM**

STEAM is an approach to learning that uses Science, Technology, Engineering, the Arts and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking.











## Enhance your kid's Math and Science concept with Codingal

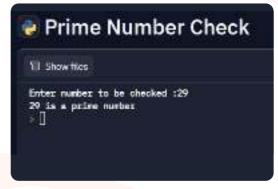




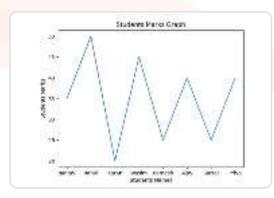
**Set Operations** 

Our engineered coding courses cover essential math concepts like prime numbers, factorials, sets, statistics, probability, etc., helping students understand the concepts and implement them in the practical world. It also helps them in building strong logic for problem-solving.

Coders must strengthen their algorithmic and computational thinking to write a line of code that works well and is bug-free. And what is a possible way of thinking at their core? Math.



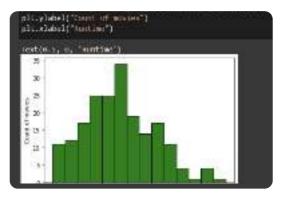
**Prime Number Check** 



Students' Marks Graph

Our teachers provide individual attention to kids, customize projects based on their interests and make them fall in love with Coding, Math, and Science.

With all the data available, Math plays a vital role in identifying various patterns and answering questions to explain human behavior for implementing the same while automating a task. And this is where coding and Math go hand in hand.



**IMDB Ratings Data Analysis** 

## Coding Grandmaster- Overview (1)

A course for those who want to master the art of coding from frontend to backend development.

144 Classes 350+ Projects 144 Quizzes



#### **Key learnings**

- All Coding Prodigy learnings +
- Data Science
- Flask Deployment
- Java Programming



#### **Achievements**

- Capstone project
- Advance coding concepts
- Analytical skills
- Deployment

#### **Featured Projects**



#### **Bootstrap Carousel**

Use carousels to add slideshows of pictures to make your webpage more interactive.



#### **Registration Form**

Use HTML to create your own registration form Web Page.



#### Module 1

#### **Front-End Development**

Learn about basics of web, and create your own webpages using HTML.

Language: HTML

Platform:

Repl.it

6 Lessons & 20+ Projects

Details of Thurs ---

Fieldset in **HTML** 



Tables in **HTML** 

#### Module 2

#### Webpage Styling

Learn to make your webpages more attractive by styling them using CSS. Language: CSS

Platform:

Repl.it

6 Lessons & 20+ Projects

The spacify Property

**Property** 

Opacity

Lypography: er versen statisse encours to comp.

**Typography** 

#### Module 3

#### **Web App Development**

Learn about bootstrap which will help to make the website responsive. Use numerous HTML and CSS templates for UI interface elements.

Language:

HTML CSS

Platform: Repl.it

6 Lessons & 20+ Projects

Border and Container



Carousel













## Coding Grandmaster- Overview (2)

#### **Featured Projects**



#### Calculator

Create a standard calculator using HTML, CSS and Javascript.



#### Bank App

Create a web application that tells you your current balance based on your transaction history.

#### Module 4

#### **Advanced Front-end Development - I**

Get introduced to JavaScript programming. Learn to add interactive behavious to a webpage using Javascript.

Language: HTML CSS JS

Platform: Repl.it

6 Lessons & 25+ Projects



JS String Methods



Real-time Application

#### Module 5

#### Advanced Front-end Development - II

Get ready to add extraordinary behaviours to your web pages through advance concepts of JavaScript. Language: HTML CSS JS

Platform: Repl.it

6 Lessons & 25+ Projects



JS While Loop



Search and Replace String



#### Module 6

#### **Capstone Project**

Create your own website using HTML, CSS and Javascript.

Language: HTML CSS JS

Platform: Repl.it

6 Lessons & 5+ Projects



Simple Calculator



Social Media



#### **Unlock Frontend Developer Certificate**

#### Module 7

#### **Python Basics**

Learn about Python basics including conditional statements, loops and functions.

Language: Python

Python

Platform: Repl.it

6 Lessons & 25+ Projects



Rainbow Spiral



Star Pattern

#### Module 8

#### **Advanced Python**

Learn about Python data structures and Object Oriented Programming. Language: Python

Platform:

Repl.it

6 Lessons & 25+ Projects



List to Dictionary



Polymorphism









## Coding Grandmaster- Overview (3)

#### **Featured Projects**



#### **Denomination Calculator**

Create a Denomination Calculator App using Tkinter Library of Python.



#### **Prime Number**

Program to check whether number entered by the user is prime or not.

#### Module 9

#### **Python Specialization**

Get introduced to File Handling and Python library Tkinter that can help create GUI applications. Language:

Python

Platform:

Repl.it

6 Lessons & 20+ Projects



Image Makes It Better



Tkinter Widgets



#### Unlock Python Programmer Certificate

#### Module 10

#### **Data Structures - 1**

Work on different Python problems to build strong Mathematical Logic.

Language: Python

Platform:

Repl.it

6 Lessons & 20+ Projects

Depth the motion: 388 388 388 are seenting mates

Strong Arms



That's a Fact

#### Module 11

#### Data Structures - 2

Learn about bit-wise operations to use it to improve your code's efficiency.

Language:

Python

Platform:

Repl.it

6 Lessons & 20+ Projects

mad = 100 = V mad 1 mad = 31 mad = 123 mad > mad = 11 mad or 1 = 1

Implement Bitwise



Power of 4



#### **Unlock Advance Python Developer Certificate**

#### Module 12

#### SQL using python I

Learn about SQL, its syntax, and its commands.

Language:

Python

Platform: Repl.it

6 Lessons & 15+ Projects



Joins



Query inside Query

#### Module 13

#### **SQL** using python II

Learn about Advance features in SQL.

Language: Python

Platform: Repl.it

6 Lessons & 15+ Projects



Guess the Database



Match the Tables



## Coding Grandmaster- Overview (4)

#### Module 14

#### **Introduction to Data Science**

Learn about Data Science and the commonly used libraries of Python-like Numpy, Pandas, Matplotlib and Seaborn. Language: Data Science

Platform:

Google collab

6 Lessons & 10+ Projects



Penguin Data Visualization Project



Student Marks Bar Plot

#### Module 15

#### **Data Visualization**

Learn how to draw insights from data using visualization in Python. Language:

Python

Platform: Google collab

6 Lessons & 10+ Projects



Velocity Time Graph



Data Cleaning

#### Module 16

#### **Data Science Concepts - 1**

Learn concepts of statistics and how to use them in Data Science. Language: Data Science

Platform:

Google collab

6 Lessons & 15+ Projects



Iris Data Survey



Titanic Survival EDA



#### **Unlock Data Scientist Certificate**

#### Module 17

#### **Data Science Concepts - 2**

Learn concepts of Probability and how to use them in Data Science.

Language: Data Science

Platform:

Google collab

6 Lessons & 20+ Projects



Pickashirt



Puppies Data Sampling

#### Module 18

#### Machine Learning - 1

Learn about the basics of machine learning, its types and Regression. Language:

Python Platform:

Google collab

6 Lessons & 10+ Projects



Multiple Linear Regression



Regression Analysis

#### Module 19

#### Machine Learning - 2

Learn about Classification and Recommendation Systems.

Language:

Python Platform:

Google collab

6 Lessons & 10+ Projects



Logistic Regression



Movie Recommendation System





## Coding Grandmaster- Overview (5)

#### **Featured Projects**



#### Movie Recommendation System

Create a movie recommendation system that helps you predict recommendations of movies for a user.



#### **Titanic Survival Prediction**

Perform Exploratory Data Analysis on Titanic Data to unravel various factors affecting survival of a passenger.

#### Module 20

#### **Deep Learning - 1**

Get introduced with Deep Learning and Neural Networks. Language: Python

Platform:

Google collab

6 Lessons & 10+ Projects









Digit Recognizer

**Image** Classifier

#### Module 21

#### **Deep Learning - 2**

Learn how to work with Image data and build Image Classifiers.

Language:

Python

Platform:

Google collab

6 Lessons & 10+ Projects



ANN Implementa



Neural Network



#### **Unlock Advance Al Programmer Certificate**

#### Module 22

#### **Deployment Basics**

Get introduced with Flask and basic functionalities to create basic deployed web pages.

Language:

Python

Platform:

Repl.it

6 Lessons & 10+ Projects



Login Page



Weather App

#### Module 23

#### Java Programming - 1

Get started with basic concepts of Java Programming like - loops and conditional statements.

Language:

Java

Platform: Repl.it

6 Lessons & 25+ Projects



Mind Riddler



**Students** 

#### Module 24

#### Java Programming - 2

Learn more about the OOPS concepts like encapsulation and polymorphism and also exception handling.

Language:

Java

Platform: Repl.it

6 Lessons & 15+ Projects



Intern Hiring Magic 1













## Top 10 benefits of learning at Codingal



#### 1. Regular PTM

Great opportunity for parents and teachers to open two-way communication and to share insights and information for the holistic development of a child.



#### 2. Regular doubt session

After every module solve all your queries in this personalized session. The toughest problems addressed – concepts revised and doubts cleared!





#### 3. Engaging quizzes

Quizzes are fun and help us remember important facts. These well-targeted and tailor-made quizzes will boost selfesteem and confidence among kids.



#### 4. Thrilling competitions

Regular competitions are conducted to encourage students to showcase their skills and develop their ideas.



#### 5. Learning Certificates

Show the world what you can do with a certificate for every amazing skill you master.











## Top 10 benefits of learning at Codingal



#### 6. Live personalized classes

Understand concepts faster with personal attention from teachers. Learn coding from highly qualified teachers trained to make learning effective and impactful.



#### 7. Lifetime access to class videos

Forgot what was taught in the last class? No worries. Watch the recorded class video anytime to refresh your memory.





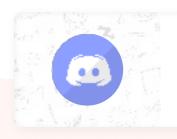
#### 8. Lifetime access to resources

Get lifetime access to our exclusive learning content including DIY sheets, videos, and other resources.



#### 9. Gamified learning

Codingal makes learning fun with gamification. Students can take quizzes or complete projects to earn points, badges, and rewards.



#### 10. Community of young coders

Get access to our community of 150,000+ students to collaborate, share projects and solve real-world problems together.



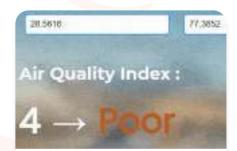








## Innovative projects built by Codingal students



#### **AirQuality**

Hussain Wangrelwala

View Project



#### Climate change effects

Shambhavi Barnwal

View Project



#### Food recipe

**Shobhita** 

View Project



Helping you fight the n strain.



**Ansh Singh** 

View Project



#### **Fight against Corona**

Yuvraj Naik

View Project



#### Climate change website

Aditya Verma

**View Project** 



#### **Rock Paper Scissor**

P.Anarghya

View Project



#### Reduce, reuse and recycle

Aditya Kumar Gupta

View Project



#### Random password generator

Ganeev Singh Tuteja

**View Project** 





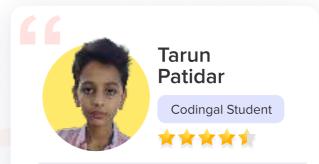




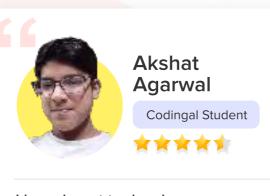
## Students and parents love Codingal



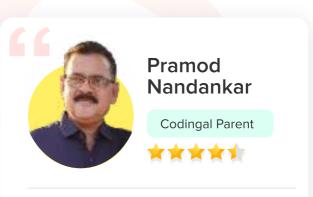
My son is now an expert in web development, all thanks to the excellent teachers on Codingal.



Codingal has helped me become an accomplished coder by making the learning process fun and interactive. Codingal teachers are very helpful and they always address my queries.



I have learnt to develop games and apps, thanks to Codingal.



Codingal's well-structured courses have made coding fun for my son. They're the best and the quickest.

## Coding- Gateway to success in the future



Now is a great time to be entering the coding world because technology will change more in the next 10 years than it has in the last 50.

- Bill Gates





Whether you want to uncover the secrets of the universe, or you just want to pursue a career in the 21st century, basic computer programming is an essential skill to learn."

- Stephen Hawking









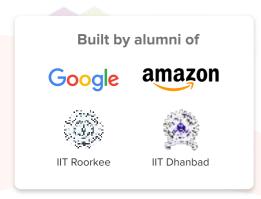
## Begin your kid's coding journey

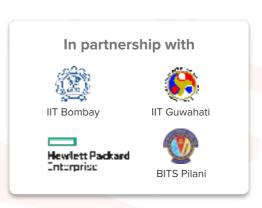
## Is your child ready for the future?

Start their coding journey with Codingal today.



## **Thank You**







Got questions?
Contact us
anytime.

Send us a message support@codingal.com



