



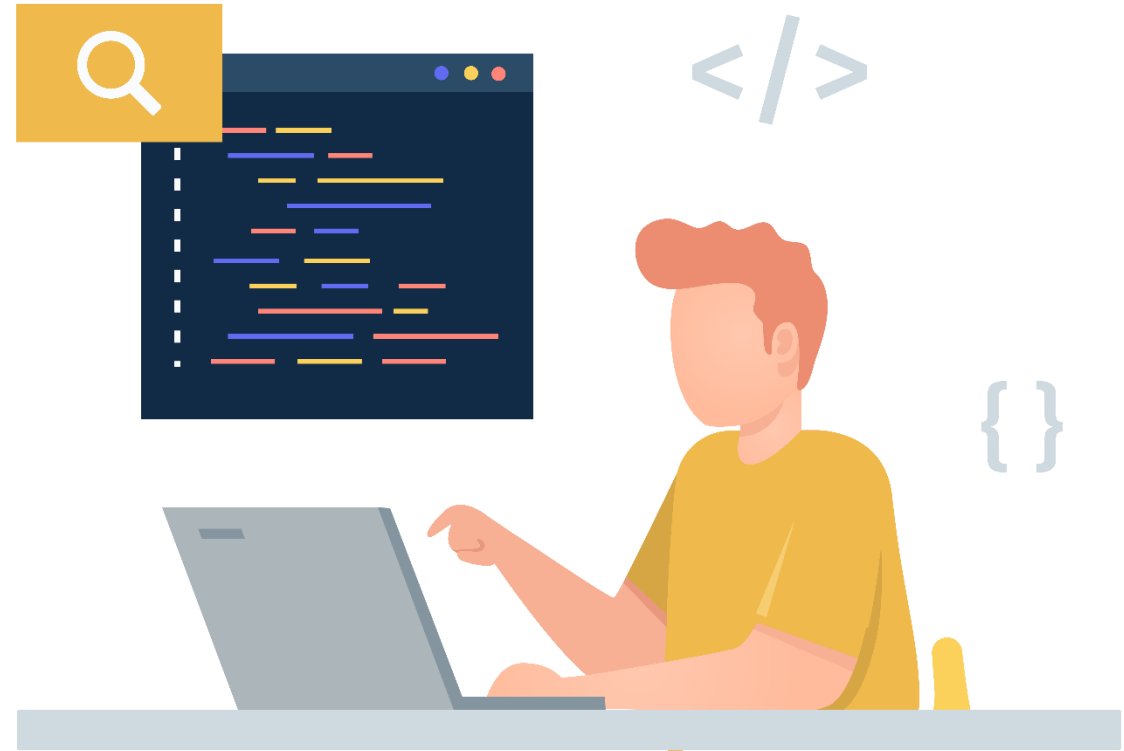
# icodejr

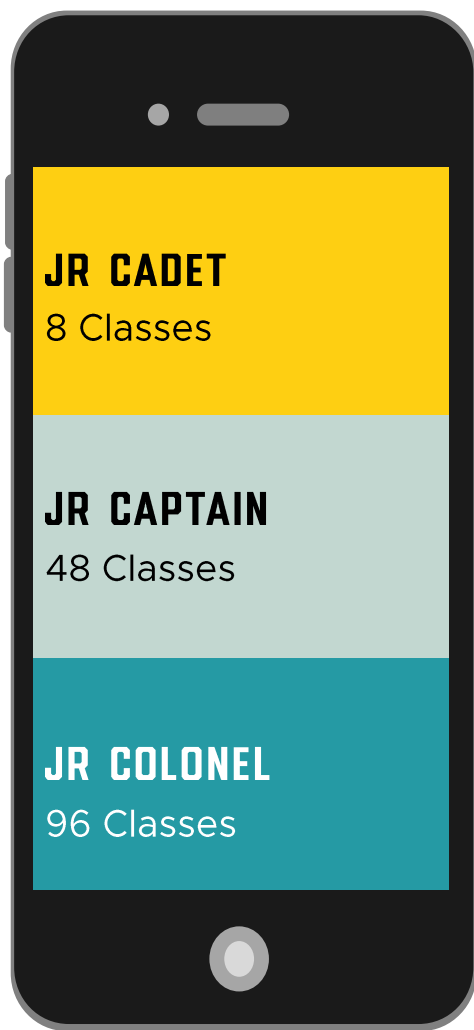


**AGE GROUP**  
Grades 9-10

## CURRICULUM

Middle East's No. 1 online coding platform for students aged 6+.





## Course:

## Learnings:

## Activities:

## Benefits:

## Achievements:

**JR CADET**  
8 Classes

Foundation of coding

Python, Python Challenges, Turtles and Flowcharts

16+ activities and 1 quiz

Understanding of Python Basics, Flow Control & Problem Solving.

Jr Cadet Certificate and lifetime community access

**JR CAPTAIN**  
48 Classes

Game and app development

JavaScript, HTML, CSS & Flask.

100+ activities and 8 quizzes

Learn how to build apps and games using JavaScript, HTML, CSS & Flask.

Jr Captain Certificate, publish your app to the play store, internships to our top 5 students, and lifetime community access.

**JR COLONEL**  
96 Classes

Advance coding

Data structure and algorithms, Java, SQL, Data science, Artificial Intelligence and Image Recognition

184+ activities and 15 quizzes

Improved analytical skills, Critical Thinking, Problem Solving, Conceptual Clarity on OOP

Jr Colonel Certificate, goodies, scholarships, and lifetime community access.



# JR CADET FRAMEWORK

## FOUNDATION OF CODING



**SKILL LEVEL**  
Advanced

**NO. OF CLASSES**  
8 Classes

**AGE GROUP**  
Grade 9-10

**ACTIVITIES**  
16+ Activities & 1 Quiz

### BENEFITS

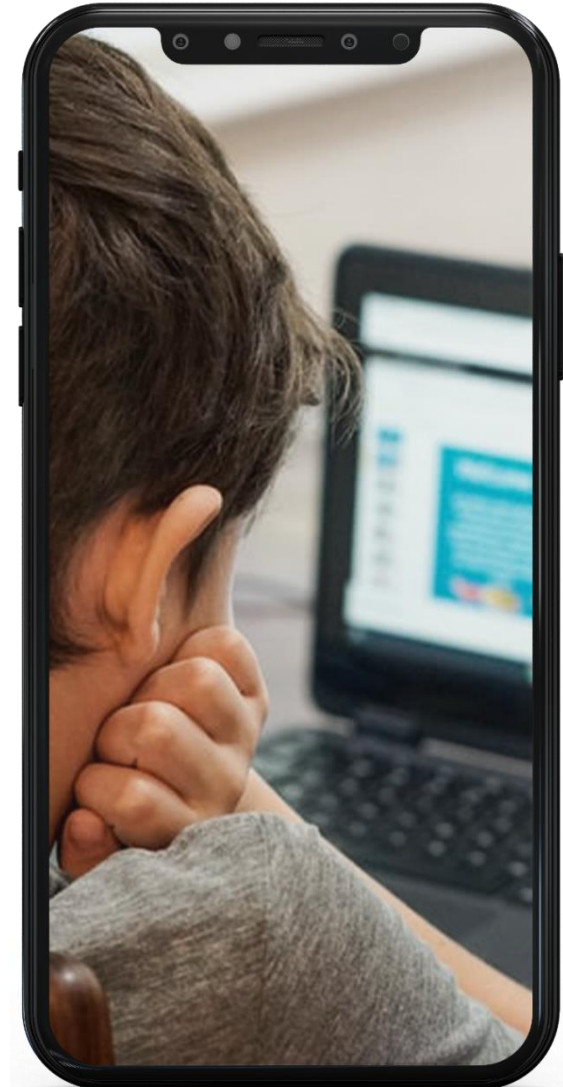
- Understanding of Python
- Flow Control
- Problem Solving

### ACHIEVEMENTS

- Jr Cadet Certificate
- Lifetime community access

### PRICE

~~AED 750~~ **33%**  
**AED 500 OFF**  
**(AED 62.5 per class)**





MODULE	THEME	TOPICS COVERED	OUTCOME
<b>M1</b> (8 Lessons)	Python Basics	Conditionals, Loops, Turtle Library in python, data types, date and time.	Students will learn about the python programming language including it's history, applications, concepts like data types, conditionals and loops, patterns using turtle. They will be making programs like phonebook and will be working on problems like Disarium number and Morse code.



# JR CAPTAIN FRAMEWORK

GAME & APP DEVELOPMENT



**SKILL LEVEL**  
Advanced

**NO. OF CLASSES**  
48 Classes

**AGE GROUP**  
Grade 9-10

**ACTIVITIES**  
100+ Activities & 8 Quizzes



## BENEFITS

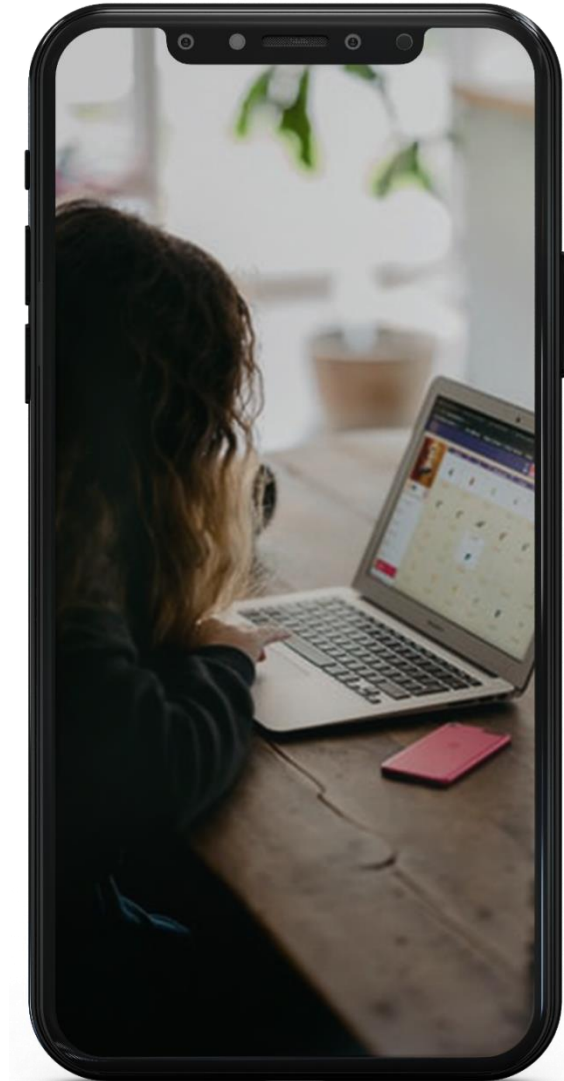
- Improved aptitude
- Critical thinking
- Advance concepts
- Structured codes

## ACHIEVEMENTS

- Jr Captain Certificate
- Lifetime community access
- Internship opportunity for top 5 performers

## PRICE

**AED 4,500** **39%**  
**AED 2,750** **OFF**  
**(AED 57 per class)**





# JR CAPTAIN



MODULE	THEME	TOPICS COVERED	OUTCOME
<b>M2</b> (6 Lessons)	Game Development with Python	Classes, Modules and Libraries in Python, PyGames	Students will continue their journey in python as a game developer including advanced topics i.e. classes, libraries, creating modules and importing them. They will also learn about the PyGames and create GUI based games.
<b>M3</b> (6 Lessons)	Specialization in Python	NumPy, File Handling, Matplotlib, Problem Solving	Students will learn about libraries like NumPy, Matplotlib. They will also learn file handling. They will gain experience and confidence in python by solving real world problems.
<b>M4</b> (6 Lessons)	App Development using JS	Data types in JS, Loops and conditional statements, Functions, Canvas, Turtles	Students will learn about app development using JavaScript. They will learn concepts like data types, conditionals and loops syntax, functions, canvas and turtles.





# JR CAPTAIN



MODULE	THEME	TOPICS COVERED	OUTCOME
<b>M5</b> (6 Lessons)	Game Development using JS	Sprites, Sprite Physics and control, Theme development, Math's	Students will learn about game development using JavaScript. They will learn about concepts like sprites, movement related to sprites, interacting with sprites, controls, math tool and theme development.
<b>M6</b> (7 Lessons)	Website Development	HTML tags like table, div, span, forms, media and CSS ,CSS animations	Students will start their journey as a web developer. They will learn about HTML tags like table, div, span, forms, media. In addition to it they will also learn about CSS and animation effects.
<b>M7</b> (7 Lessons)	Advanced Web Development	Integration of HTML/JavaScript with Python, Flask.	Students will continue their journey as a web developer. They will learn about integrating python with web development with the help of flask. In addition to it they will also learn about use of JavaScript in web development.



# JR COLONEL FRAMEWORK

## ADVANCE CODING & GAME DEVELOPMENT



**SKILL LEVEL**  
Advanced

**NO. OF CLASSES**  
96 Classes

**AGE GROUP**  
Grade 9-10

**ACTIVITIES**  
184+ Activities & 15 Quizzes



### BENEFITS

- Critical Thinking
- Analytical skills
- Clarity on OOP

### ACHIEVEMENTS

- Jr Colonel Certificate
- Lifetime community access
- Scholarship opportunity for top 5 performers
- Goodies

### PRICE

**AED 9,000** **47%**  
**AED 4,800** **OFF**  
**(AED 50 per class)**



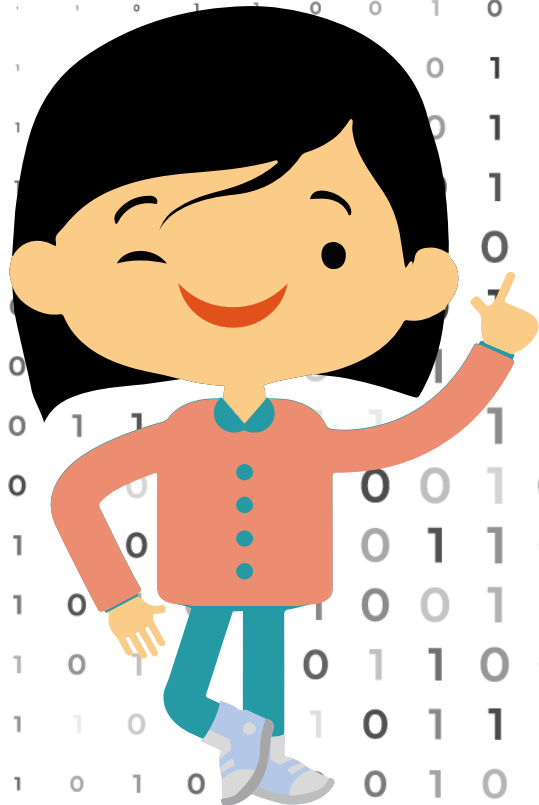


MODULE	THEME	TOPICS COVERED	OUTCOME
<b>M8</b> (6 Lessons)	DSA-I	Data structures, Trees and Memory allocation	Students will start their journey with data structure and learn about built-in and user defined data structures in python. They will also learn about binary trees and memory allocation.
<b>M9</b> (6 Lessons)	DSA-II	Sorting algorithm, Dijkstra's, Encryption algorithm	Students will continue their journey with the most important concept of programming i.e. data structures and algorithms. They will work on different sorting algorithms. In addition they will also solve the Shortest path algorithm.
<b>M10</b> (6 Lessons)	Java Basics	Data types, Loops, Typecasting, Switch, If-else, Methods, Method overloading	Students will start the with language of possibilities i.e. Java. They will learn data types, loops and conditionals in java. In addition to it they will also learn the concepts of methods and method overloading.

MODULE	THEME	TOPICS COVERED	OUTCOME
<b>M11</b> (6 Lessons)	Advanced Java	Classes, Constructors, Encapsulation, Inheritance, Polymorphism, Abstraction, File Handling	Students will proceed ahead in Java by learning advanced concepts including abstraction, creating and importing their own library. They will also learn about file handling in Java.
<b>M12</b> (6 Lessons)	SQL	Database creation, tables, INSERT, SELECT, Order by, UPDATE	Students have studied about data till now. They will now learn about creating tables, storing the data, doing different operations on the stored data.
<b>M13</b> (6 Lessons)	Data Science	Matplotlib Library, Solving Real world problems with Graphical Representation, Linear Regression, Statistics	Students have learnt about data, storing data. Now they will learn about working on data and getting useful results with the help of Data science. They will also use concepts of probability and statistics to analyze the data.



MODULE	THEME	TOPICS COVERED	OUTCOME
<b>M14</b> (7 Lessons)	AI Basics	Machine Learning, Binary Classification, Different algorithms in Machine Learning, Logistic Regression, Derivatives, Vectorisation	Student will proceed ahead in the journey by learning about Artificial Intelligence. They will also have insights on data modeling, data exploration, data acquisition and machine learning.
<b>M15</b> (7 Lessons)	Image Recognition	Neural Networks, Convolutional Neural Network, computer vision, Data Argumentation, YOLO Algorithm, Detection Algorithms, Facial Recognition	Students will learn more about artificial intelligence by understanding image recognition and its uses to solve real world problems.



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ready!**

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