

### Lecture Name

### Detailed concepts

16 Making game using conditionals

"Kids follow a step by step approach to design a single player game with hurdles."

17 While and Until Loop

Introducing more conditionals to students and difference between them..

18 Dino Trex Game

Dino trex complex game by using variables

19 Game (Mouse+Graphics)

Cat and Mouse game by using mouse pointer

20 Dance Party

A fun topic where student will learn event driven code

### Artificial Intelligence - 1

21 Introduction to Machine Learning

Introduction to Machine Learning

22 Application of Machine Learning

We will teach the student how Machine learning can use in our daily life

23 "Coding Fundamentals in Depth"

Revision of everything we learnt till now doubt solving

24 Game Designing using Text Commands

We will make the Star Wars Game where we will revise the concept of Variables

25 Rock Paper and Scissor

We will make Rock,Paper and Scissor game using scratch and learning the Maths Operators

### App Development - 1

26 Introduction to App Lab

Introduction to App Lab and User Interface to Students

27 Translator App

We will teach how to make app using conditionals

28 Binary Numbers

Introduction to Binary and how to convert them in Decimal Numbers

29 Introduction to turtle programming

Introduction to turtle programming and While loop

30 While loops

Making Elsa and Anna patterns using While loops

31 Multi Screen Apps

Introduction to Multi Screen Navigation

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32 Radio Button

Making a quiz using radio button where we can select only one option.

33 Check Box

You can select more than one option in Check Box and We are making House lock App.

34 Minecraft Adventures

Minecraft games and Introduction of Functions

35 Slider

By using slider how to change images.

36 Clicker and Flicker App (Part1)

We need to make clicker and flicker app. We will make the part 1 Clicker Game

37 Clicker and Flicker App (Part 2)

We will make the Flicker Game and learn the concept of setTimeout.

38 Data Types

To teach kids about string data types and String Manipulation.

39 Functions

Learning Functions in depth and its importance.

40 Rock Paper Scissor

We will make a Rock, Paper and Scissor game in app lab by using all the concepts we learnt till now

41 Debugging in App Lab

We will complete Rock Paper and Scissor Game and learn how to do debugging in app lab.

## Artificial Intelligence - 2

42 Text to Speech App

We made our first app in Thinkable which we can download on our Phones.

43 Revision

Student will make an independent App of their choice

## Robotics

44 Checkpoint 2

Introduction to Robotics and Revision

## App Development - 2

45 GyroSpace

Maze Game in Thinkable

46 Dropdown

App using dropdown

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47 Boolean Expression

Introducing Boolean Expressions

48 For Loop

Introducing for loop

49 Applications of For Loop

We will make app using For Loop

50 Introduction to Array

Introducing Array

51 Applications of Array

We will make app using Array

52 Introduction to Database

Create and delete databse in tabular form

53 Data Manager App  
(Part 1)

We will manage app where we will create the data

54 Update and View  
Database

Updates and View of database

55 Data Manager App  
(Part 2)

We will update and view the data app

### Game Designing and Development - 2

56 Introduction to Game Lab

How to make shapes in game lab

57 Introduction to Sprites  
and draw loop in Game Lab

Sprites creation and their movements

58 Interactive Card

We will make a greeting card by using Game lab

59 Collision Detection

We will make game by using Collision Detection

60 Mouse and Keyboard  
Input

Use of keyboard keys and mouse in game lab

61 Functions in Game lab

We will introduce functions in game lab and their uses.

62 Help the Duckies (Part1)

We are making the game by using all the concepts we learned till now

63 Help the Duckies (Part2)

We are making the game by using all the concepts we learned till now

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#### Web Development

**64** Introduction to Java Script

We will introduce java script

**65** Applications of Java Script

We will teach java script in depth

**66** App using Java Script (part1)

We will make app using Java Script

**67** App using Java Script (part2)

We will make the quiz game

**68** Introduction to Html

We will introduce html

**69** Basics of Html

We will learn the basics like how to make header and paragraph

**70** Web page using Images

We will introduce how to insert images in web page

**71** Web page in Html

We will make web page in Html

**72** Introduction to Css

We will Introduce Css and it's basics.

**73** Styling in Css

How to change colors text font in Css

**74** Web Page

We mill make a Web page using Html and Css

**75** Chat Bot

We will make a Chat Bot using Scratch

**76** Digital Clock (Part 1)

We will make a digital clock in Css

**77** Digital Clock (Part 2)

We will make digital clock in javascript

**78** Digital Clock (Part 3)

We will make digital clock in javascript

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#### Artificial Intelligence - 2

79

Depth in Macine Learning

We will make Activity using Machine Learning

#### Artificial Intelligence - 2

80

Introction to Robotics and Revision

Introducing to Robotics and Revisions

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#### Coding Fundamentals - 1

1	Sequence and Events	Introduction to sequence and Event Blocks
2	Algorithms and Debug	"Applying Algorithmic thinking to break complex problems into simple steps"
3	Loops	Introducing kids to Loops and What are the importance of Loops
4	Nested Loops	Introduction to Nested Loops and Lifecycle of Coding
5	Coordinates	Introduction to x and y axis and how we can change the movements and introducing them to scratch also
6	Variables	Introducing Variables to the kids
7	Functions	Introducing Functions to the kids
8	Checkpoint 1	Whatever we learnt till now we will revise all the concepts here

#### Coding Fundamentals - 2

9	If and Else (Conditionals)	Introducing conditionals to kids
10	Extended Variable	We will learn variables in depth
11	IPO	Introduction to Input, Process and Output and how our machines works on it and debugging in text commands
12	Animation in Depth	Learning of animation in depth

#### Game Designing and Development - 1

13	Forever loop	We will make the bounce ball game by using forever loop.
14	Game making in Scratch	We will make the second part of Bounce Ball Game
15	Glide in Depth	Teaching the concept of Glide and making Animations using it.