

Scratch for Game Developers

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BE Mechatronics (SZABIST)



Contents

1: Week 01: Introduction to Scratch

2: Week 02: Rainbow Lines Project

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4: Week 04: Snake Game Project

(Total Hours for the Course = 32)

- Each Class is of 4 Hours
- Twice/Week

Week 01: Introduction to Scratch

Saturday:

- Scratch Website Interfacing
- Online & Offline Scratch Editor
- Familiarity with Programming Blocks
- Home screen Option
- Scope of Block Programming
- Start coding with basic blocks
- Move the Sprite

Sunday:

- Assessment
- Familiarity with Motion Block
- Exploring more options
- Familiarity with Event Block
- Options related with Event Block
- Concept of saving file
- Uploading your Project

Week 02: Rainbow Lines Project

Saturday:

- Revision of previous concepts
- Costume Tab & Paint Editor
- Creating your own sprite
- Brush tool, Undo, Colour selector
- Info Panel & renaming sprites
- Direction and degree
- Start Coding

Sunday:

- Assessment
- Debugging
- Logic Development
- Duplicating sprites
- The Pen Block
- Change the backdrop
- Executing the code & have fun

Week 03: Maze Game Project

Saturday:

- Cartesian Coordinate
- The “go to” and “glide” blocks
- Use & Implementation of Cartesian System
 - For x: positive=right, negative=left
 - For y: positive=Top, negative=Bottom
- Use of conditional statements
- Logic Development

Sunday:

- Assessment
- Upload .sprite2 file
- Export a sprite as a .sprite2 file
- More custom options
- Load Sounds/backdrops/Sprites
- Broadcasting and receiving messages
- Executing the code & play the game

Week 04: Snake Game Project

Saturday:

- Revision of core concepts
- Customizing your sprite
- Logic development
- Basic concepts of designing
- Complex coding
- Use of control options
- Game development
- Execution

Sunday:

- Grand Assessment
 - Use of Block Programming
 - Smart Logic
 - Game development
- Familiarity with some more games
- Applications related to scratch
- Create your own game