Subject: The Basics

Overview

In our first lesson, our users will make entrance to the world of coding with Codementum platform. Since it is our first lesson on the platform, we will firstly help them develop their knowledge and skills set at the basic level by mentioning the logic of setting up an algorithm when coding. When the first 10 tasks which we formed for this purpose are completed, our users will have learnt to set up algorithms and will be able to code for them.

Our training consists of contents that are suitable for student levels which go from easy to difficult. Difficulty level increases in each new stage through smooth transitions. In this first lesson of training to code which is a unique part of captivating the computer world, we will start to take first steps to solve the issues we encounter in daily life by thinking like a computer.

The Objective of the Subject and Learning Outcomes

At the end of this lesson, our users:

- Will gain computational thinking skills.
- Will learn the logic of setting up algorithms and the usage of the developed will in Codementum platform.
- Will discover coding and computer programming.
- Will learn the usage of the Codementum platform.
- Will complete 10 scenes from the Codementum platform.
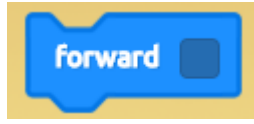
Commands to be Used

forward(), turn(), forwardUp(), forwardDown(), beaver.forward()

Blocks and Button icons to be used for training about this subject

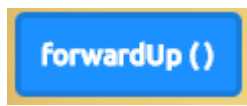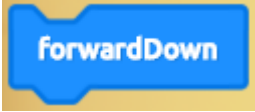**Block:** You can create code by dragging and dropping the related blocks.

Buttons: Buttons will be seen on the screen during the coding adventures and when you click, it will write the related code on the screen automatically.

Explanation: You can find the basic knowledge you need in the explanation section.

Block	Explanation
forward	It is used for pushing our character forward. It moves according to the value written inside.
Button	
forward ( )	*Sample usage*: forward(5) //it pushes our character 5 squares forward.

Block	Explanation
turn left	It is used to turn our character within the stage. Thanks to this command our character can turn right, left or backwards.
Button	
turn ( )	*Sample usage*: turn(right), turn(left), turn(back) etc.

Block	Explanation
forwardUp	It is the command which pushes our character one step up and one step forward from the scene. Using this command our characters can reach the targets which take place in one upper stage of our task scene.
Button	
forwardUp ()	Sample usage: forwardUp()

Block	Explanation
forwardDown	It is the command which pushes our character one step down and one step forward from the scene. With this command our characters can reach the targets which take place in one-down stage of our task scene.
Button	
forwardDown ( )	*Sample usage*: forwardDown()

Supporting character usage

Our lovely character beaver will help our main character to complete its task by passing through watery fields. In order to give our assistant characters command, it is enough for you to click on the beaver character on the screen.

WARNING 1

In this section we want to set up an algorithm for scene solutions in the mode of block, if we click on the beaver character, beaver block will be formed automatically. If we click on coding mode "beaver" will be written inside the coding section. This procedure is also valid for the supporting characters of turtle and seal which we will encounter in the forthcoming scenes.

Block	Explanation
beaver	The Codementum platform is basically designed for our students to code . Therefore the blocks of the character in the scene are not ready and it is formed automatically in the mode of blocks when the character on the scene is clicked.
Image	
	As in the example of beaver which is a supporting character, when you click on any beaver character on the scene, beaver block will be formed automatically. This procedure is also valid for the supporting characters of turtle and seal which we will encounter in the forthcoming scenes.

WARNING 2

We do not need to write for example, monkeys. forward() in the commands we write for moving our main character. It is enough to write forward() for the main character. The commands given without using point (.) is for our main character which takes place in the scene for completing the tasks. However, when there are more than one character in the scene, we need to specify the ones other than our main character as we do here (by using point. For example: we must specify "turtle.forward()" in particular.

Sample Solution: Scene 3

Algorithm	Block	Python	Javascript
• Start • Move 4 squares forward • Turn right • Move 6 squares forward	START forward 4 turn right forward 6	forward(4) turn(right) forward(6)	forward(4) turn(right) forward(6)

Sample Solution: Scene 8

Algorithm	Block	Python	Javascript
• Start • Beaver move 3 squares forward • Turn right • Panda move 9 squares forward	START beaver forward 3 forward 9	beaver.forward(3) forward(9)	beaver.forward(3) forward(9)