DOODLE WITH "LOGO" THE TURTLE

Umang Nahata

WHAT WE WILL COVER

About Me

About Logo

Commands

Shapes

Other things...

Resources

ABOUT ME

- I live in Cleveland, OHIO

- At Progressive, I play the role of a test engineer – making and breaking code

- Enough about me – Now let's doodle with Logo

ABOUT LOGO

- Older than me - Created in 1967 at MIT

- Educational Programming Language

- More than 300 different implementations

- "Turtle" – an on-screen interactive cursor that shows output of commands that you enter

FOR THIS SESSION

Turtle Academy -
https://turtleacademy.com

BASIC COMMANDS FOR DRAWING

Command	Shortcut	Meaning	Example
FORWARD n	FD	Move the Logo turtle forward 'n' steps	FORWARD 50
BACKWARD n	BK	Move the Logo turtle backward 'n' steps	BACKWARD 50
LEFT n	LT	Turn left 'n' degress	LEFT 90
RIGHT n	RT	Turn right 'n' degress	RIGHT 90

COMMANDS FOR MANAGING YOUR CANVAS

Command	Shortcut	Meaning	Example
CLEARSCREEN	CS	Clear the canvas	CLEARSCREEN
PENDOWN	PD	Lower your pen so that you can draw	PENDOWN
PENUP	PU	Life your pen up so that you don't draw	PENUP
SETCOLOR n		Set the color from 1-15	SETCOLOR 15

COMMANDS FOR POSITIONS

Command	Shortcut	Meaning	Example
HEADING		Get the direction you turtle is heading	HEADING
POS		Get your turtle x,y coordinate position	POS
XCOR		Get your turtle x coordinate position	XCOR
YCOR		Get your turtle y coordinate position	YCOR
SETPOSITION [x, y]	SETPOS	Sets your turtle position to x,y coordinate	SETPOS [0,0]

TIME TO DRAW : 45 MINUTES

LINE

SQUARE

RECTANGLE

TRIANGLE

OTHER SHAPES — POLYGON

OTHER COMMANDS

Command	Shortcut	Meaning	Example
PRINT n		Prints n on the canvas	PRINT 'HELLO
RANDOM n		Gets a random number from 0 to n-1	RANDOM 15
REPEAT n [COMMANDS]		Repeat a set of commands n times	REPEAT 4 [FORWARD 50 RIGHT 90]
TO name [COMMANDS] END		Define your own command	TO SQUARE REPEAT 4 [FORWARD 50 RIGHT 90] END

EXAMPLE : BUILDING FOR DRAWING

to square

repeat 4 [forward 50 right 90]

end

to flower

repeat 36 [right 10 square]

end

to randomposition

repeat 5 [penup fd random 1000 rt random 1000 pendown]

end

to garden

repeat 5 [randomposition flower]

end

TIME TO DRAW : 20 MINUTES

ADVANCED SHAPES – CIRCLE, POLYGON
HOW ABOUT DEFINING YOUR SHAPES?

BUT WAIT! THERE'S MORE TO IT THAN SHAPES

PEN WIDTH, STYLE, LABELS

ADDING PARAMETERS TO DEFINITION

VARIABLES, LOOPS

PROCEDURES AND RECURSION

AND MORE…

RESOURCES

- Logo Foundation – https://el.media.mit.edu/logo-foundation/what_is_logo/history.html

- Turtle Academy – https://turtleacademy.com/lessons/1

- Tutorials Point – https://www.tutorialspoint.com/logo/index.htm

- Wikipedia – https://en.wikipedia.org/wiki/Logo_(programming_language)