Code Week 4 All Challenge

Pixil Art..Have Fun with Us!

We introduce our students to the world of digital art creation, such as the production of digital images with an emphasis on the existence and use of pixels, using the online collaborative platform Pixilart.

The pixel table leads to the attempt to find ways to create the required project. Students are divided into groups and each group also divided into 2 teams. For each requested project, the 1st team creates the necessary restrictions and conditions, and therefore the corresponding commands, while the 2nd team proceeds with the implementation. At the end, both teams try to write down a simple, serial code commands, step by step, that solves the problem, in order to create the project.

Students from senior classes of the school should try to use the creation of small programs / subroutines, in case there is a set of instructions that is repeated at least 2 times in the project.

The above procedure shows students that for the development of a program are included steps similar to any problem-solving task.

Example:

Exercise: In a table 32x32 create the letter "E".

1st group:

They decide that they want the letter "E" to be created on most of the board. They initially create the conditions:

- Maximum font size: 28 pixels
- Maximum font width: 16 pixels
- Colors: What the majority of the team wants

Then, the group itself must write basic instructions / commands, based on the above restrictions, in order to give to the 2nd group:

- From which pixel, the letter starts and ends horizontally and vertically
- The length of each horizontal and vertical line.
- The color for each line.

2nd group:

With the exact instructions of the 1st group, they implement the project on the online digital canvas of the Pixilart program and then save it and print it.

Plenary session:

At the end of the project, both groups discuss and write the final instructions / commands, which they now write serially, based on how the project is implemented and thus codify the above task.