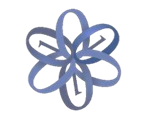
Project „Maze Game“

Team Arizona

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ПГКПИ, гр. Бургас

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# Team

A picture containing person

Description automatically generated

Ivan Mihaylov, class 10V

Role: Scrum trainer

[INMihaylov19](mailto:INMihaylov19@codingburgas.bg)

A picture containing wall, person, indoor

Description automatically generated

Yoanna Simeonova, class 10V

Role: Back end developer

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Ivaylo Markov, class 10A

Role: Quality Engineer

[IPMarkov19](mailto:IPMarkov19@codingburgas.bg)

A person wearing glasses

Description automatically generated with medium confidence

Kristian Tsvetkov, class 10G

Роля: Front end developer

[KPTsvetkov19](mailto:KPTsvetkov19@codingburgas.bg)

# Topic

The topic of the project is “Maze Game”. Our task was to build a maze, which the player has to solve in case to win. The used language is C++ and one of the main requirements is to use dynamic arrays.

# Used technologies

* C++ - That is the language we have used, for the realization of the project.
* GitHub – We have used GitHub for collaboration between us, organizing meetings and assigning tasks.
* Visual Studio – That is the IDE we have used for writing and organizing the program.
* Discord – We have used Discord for communication.

# Milestones in realization

## Form the team

Our team is formed by 4 students and everyone has a unique role. That role is determined according to his skills and knowledge.

## Do research on the topic

To achieve our goals, we had to spend some of our time in researching.

## Discuss ideas

After doing some research on the topic, everyone suggested their idea, we discussed the ideas and assigned everyone a task.

## Разпределяне на задачи

Each of us has a unique role and the tasks he receives is determined according to it.

## Work on the project

After everyone received his tasks, we started working on the project. Together we managed to create the final product.

# Used functions

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Arguments | Usage |
| assign\_new\_values | void | pair<int, int> pair, int& i, int& j | Assign the new cell's values to the coordinate variables |
| check\_path\_cell | void | char\*\* arr, int size, pair<int, int> pair, int& i, int& j | Make the cell between the two filled cells a path cell |
| eswn\_rand | int | int max | Returns a random number from 1 to 4 |
| maze\_grid | void | int size, char\*\* arr | Algorithm for drawing the maze grid |
| color | void | int color | Gives color to text |
| gotoxy | void | int x, int y | Gives, changes the coordinates of a point |
| controls | void | char \*\*arr, int size | Movement of the player |
| check | void | int size | Checks where to print square or space in the grid |
| menuArt | void |  | Displays ASCII art in the menu |
| Menu | int |  | Prints the menu |
| choice | void |  | Makes the player choose between 3 grid sizes(10x10, 20x20, 30x30) |
| rules | void |  | Displays the rules |
| winMessage | void |  | Displays a winning message, when the player wins |