

Documentation

Team:

CodeRunners

Purplebit

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# 1. Team

# 1.1 Lyubo Dimov 9G – Scrum Trainer

I am the leader of the team. I helped with the presentation and documentation, I created the repository and the files inside so that my team could work on them.

# 1.2 Bozhidar Dimov 9V – Front-End Developer

I worked on the C++ code, the documentation, the organisation and the design. I made the main menu and organised it. I helped with doing the structure of the games and the code, added comments to the code, helped in the developing part of the games, also did a major part in the documentation and presentation. I did the design of the games and helped with organising the team and the repository in GitHub. I made the design of the README.md in the repository and helped with the design of the repository itself, created the projects in the repository and most of the issues. I organised the files into folders.

# 1.3 Gospodin Radev 9A – Back-End Developer

I worked on the C++ code, the documentation and the organisation. I made the functuallity of the games, created the ideas about them and developed them into code, organised and fixed the code as well. I worked on the structure of the code, added comments to it, and also helped in doing the presentation and documentation. I created most of the issues and helped in organising the team and the repository.

# 1.4 Kristian Gaidov – QA Engineer

I made and organised test cases of the games which I included in the QA documentation that I created. I tested the code which the developers had written and I helped them to fix their errors. I included the results which I made in the QA documentation.

Интр

# 2.Goals

Our goal is to create a game which requires basic knowledge of the number systems and bitwise operators in the language C++. We managed to make the game with basic knowledge and we tend to think that it is a fun, relaxing and easy game, with which you can easily learn basic number system and bitwise operation knowledge.

# 3. Stages of development

# 3.1 Start of the project and planning

After our team’s formation we started by organising our work in Microsoft Teams. From there we made a Discord server, because we thought that it is an easier platform to maintain communication. Then our Scrum Trainer registered us, made a repository in GitHub and the project began by discussing ideas for the final product and then we started work.

# 4.Stages of realisation

# 4.1 Planning

After we had assigned the roles and did everything at first the developers had ideas to make an easy computer game with bitwise operations and number systems.

**4.2 Realisation**

We decided what is the project going to include. During the process we maintained communication with frequent meetings in Discord and deciding what we were going to do. Every single one of us has helped each other and we maintained good balance between the work.

# 4.3 Testing

The QA Engineer made sure that all of our functions and the code itself were functioning correctly and if not he made sure that we knew that we had made a mistake and correct it as soon as possible.

# 5. Site description and structure

# 5.1 Structure

Diagram

Description automatically generated with low confidence

# 5.2 Description

In our game you will find two options when you first get into the main menu: 1. “Bitwise Test”, 2. “Guess the Number”.

* “Bitwise test” – As its name gives a hint, this game is related to bitwise operations (|, &, ^), the idea of ​​the game is that again we have one or two (depending on the operation) randomly generated numbers in a given number system such as between them or next to the number (depending on the operation) the corresponding action to be performed is placed. Knowing what the given action is, the player must calculate what it is and enter it, if the result matches what the player entered, it displays a message “Congratulations, you are master!”.
* Guess the number - In the upper part of the console, an inscription appears saying "Convert (any number) in (any number system)" . The idea of ​​the game is to help the user learn the conversion from one number system to another. The mechanism is that the given number (say decimal) needs to be converted to the given number system (say decimal). When he is ready with his answer, the player enters it and the game displays the corresponding message. If the answer is correct, the message is: "Congratulations, you are master!" If the answer is wrong, the message is: "Sorry, your answer is incorrect, revise and come again!"

# 6.Table with functions and explanations

|  |  |
| --- | --- |
| Function name | Description |
| int main() | The main function of the game. |
| void play() | Display the choices of the player. |
| void drawName() | Draw the name of the game. |
| void bitwiseAnd() | Bitwise AND function for “Bitwise Test” game. |
| void bitwiseOr() | Bitwise OR function for “Bitwise Test” game. |
| void bitwiseXOR() | Bitwise XOR function for “Bitwise Test” game. |
| void playBitwiseTest() | Head function for “Bitwise Test” game. |
| void randomBin() | Random binary function for “Guess the Number” game. |
| void randomDec() | Random decimal function for “Guess the Number” game. |
| void guessTheNumber() | Head function for “Guess the Number” game. |

Made by: Team CodeRunners