**Team Report**

**Description of the team:**

**Name of the team:** *Ripple*

**Project name:** *2048 Game*

**Team members:**

1. Oleh Petrov - Builder, Architect, Critic
2. Valeriia Rudenko – Designer, Facilitator, Exhibitor

**Description of the project:**

The main idea is to build well-known educational game. The essence of the game is to combine tiles with the same numbers. The numbers are adding up until it reaches 2048. The player must get to the tile with the number 2048 in the least number of steps. If the board is full and there is no way to make a move, such as joining tiles together, the game is over.

**Workload:**

Oleh Petrov – Builder 1000m, Architect 300m, Critic 120m;

Valeriia Rudenko – Designer 600m, Facilitator 360m, Exhibitor 360m;

**Available features:**

Playing 2048 game

Watching game score

Watching best score

Saving game and score to file when player exit game

Downloading game and score from file when opening game

Changing game theme

Watching how to play

Undo one move

-We didn’t find any bugs in the program (All that we founded we already fixed)

**Instructions on how to run the project:**

1.Download and extract archive with game;

2.Open in IntelliJ IDEA as project;

3.Run Main function in Screen.java class.

**General Modules:**

GameField.java – class with all game logic.

GameScreen.java – classes that display all game process at the screen.

Screen.java – main class that create window where will be all game process.

GameTheme.java – class with all game colors and functions to change it.

FrameSeting.java – class with screen settings.

MenuButton.java – class that all buttons use.

Settings.java – settings screen class.

HowToPlay.java – how to play screen class.

Settings.java – settings screen class.

Menu.java – menu screen class.

GameListener.java - functions that called by buttons in game.

MenuListener.java - functions that called by buttons in menu.

**Structure of the project/Use case:**



**Activity diagram:**



**Tools and technologies:**

We are using Java programming language in this project. GUI we are making with Swing library. Our IDE is Intellj IDEA.

**Short demo:**

<https://youtu.be/qXutLEVGK-Y>