

Hello, I'm Nicoleta Ciaușu.

I am a second-year Computer Science student @ University of Bucharest.

My contact details are:

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- [GitHub profile](#)
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I code with passion and learn by experimenting.

Here are some of my personal projects:

[GitHub link](#)

Introduction

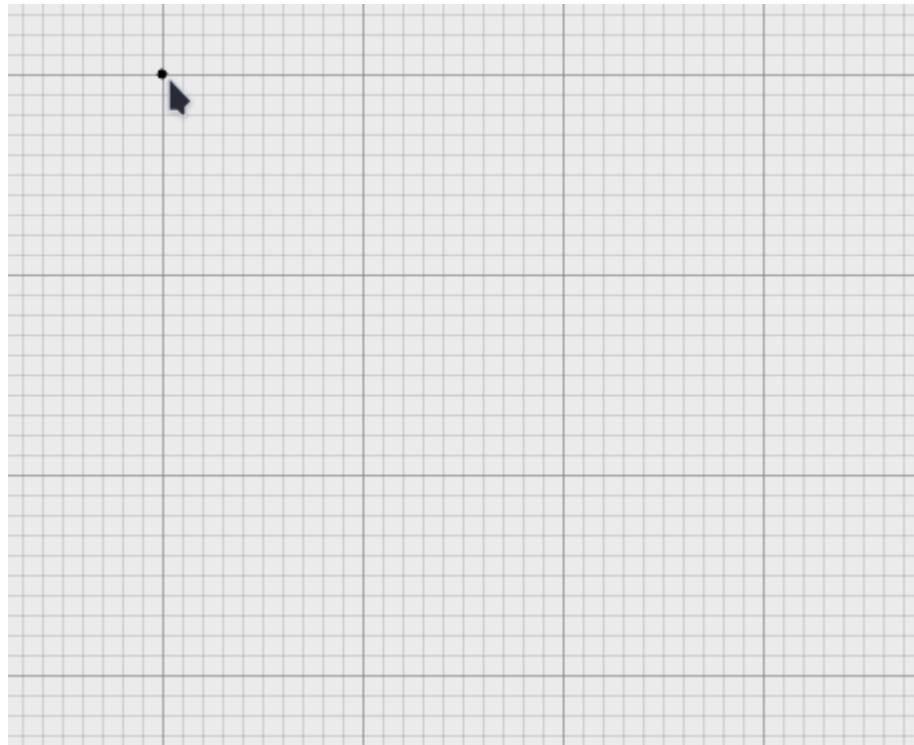
Even had to redesign a room, a floor, or your entire house, and you spent hours drawing floor plans by hand, on graph paper, trying to make sure your sofa will fit next to the dresser? I certainly have, and it's a frustrating experience. I think we can do better than that.

As the vast majority of floor planner apps are available as part of a paid service, or too complicated to use for my needs, I decided to write my own. Enter Arcada, an open-source floor planner app.

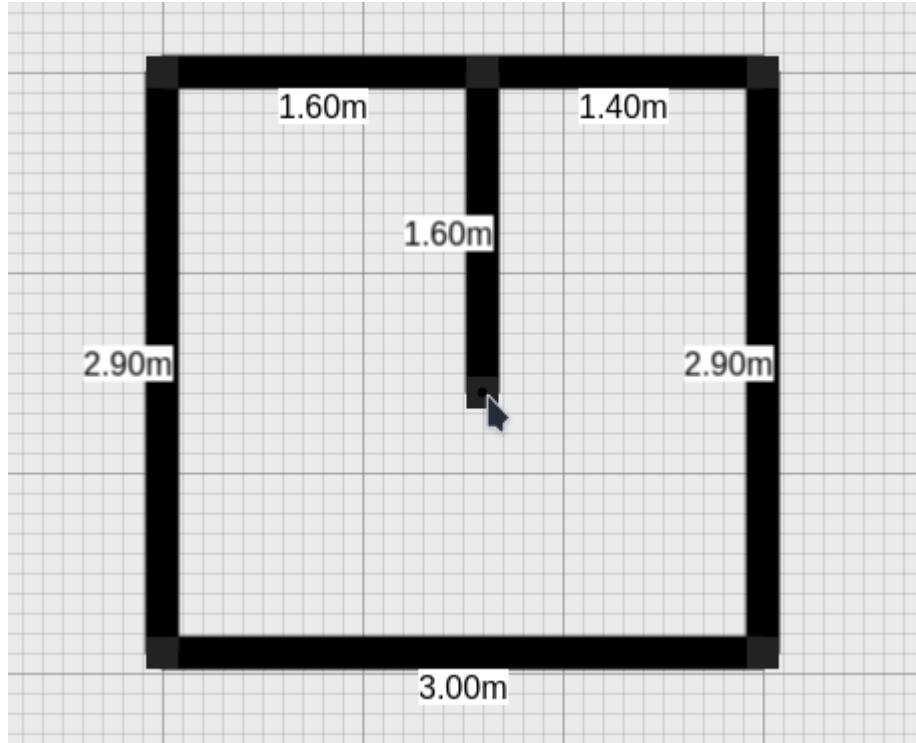


Features

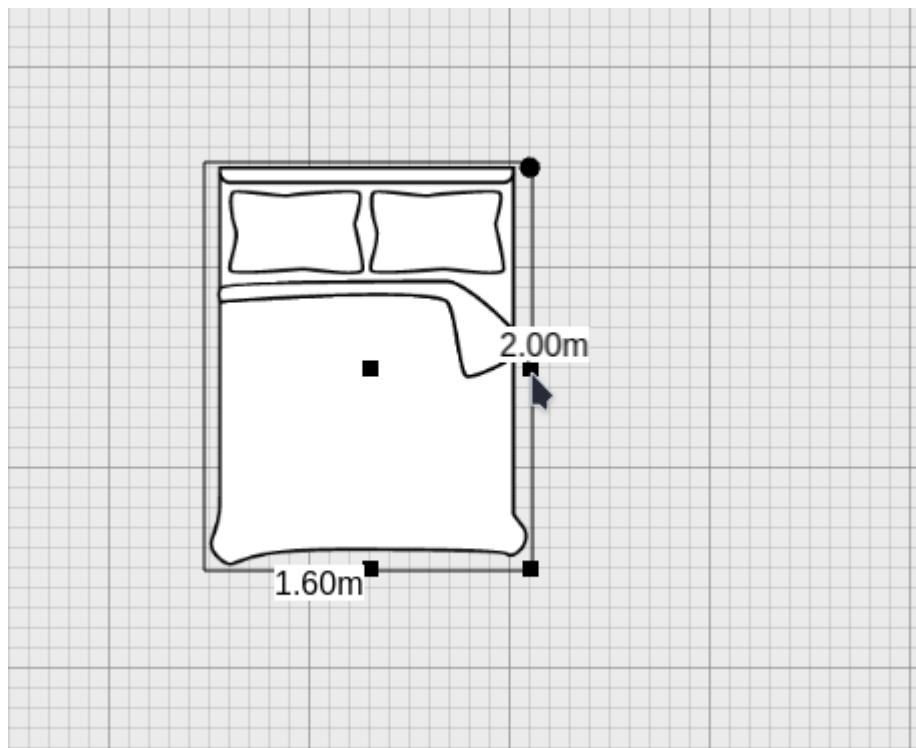
💡 Add walls



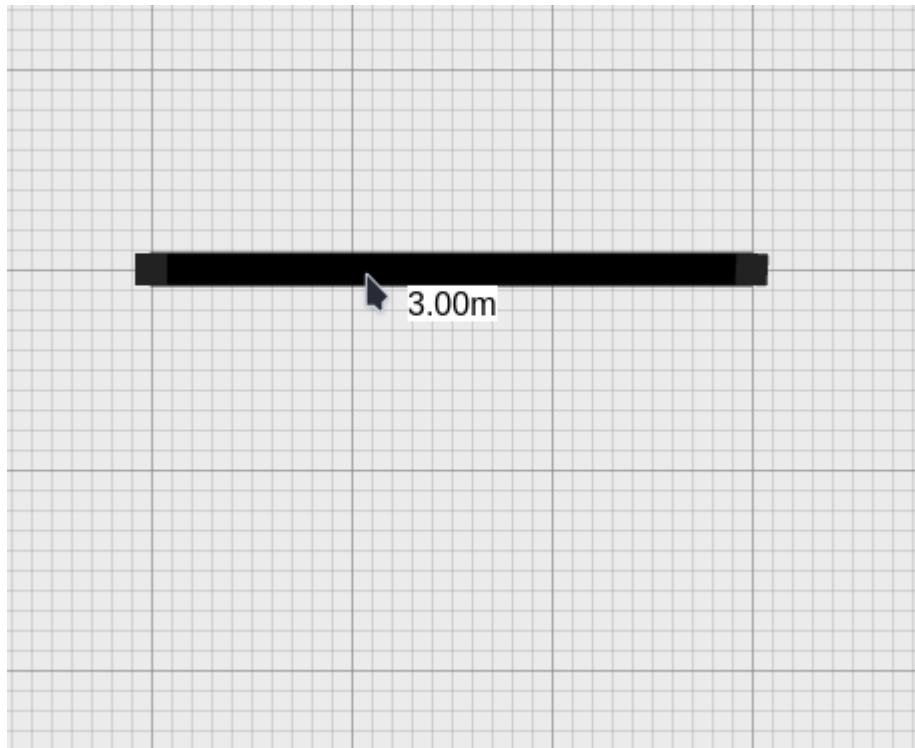
✖ Edit walls



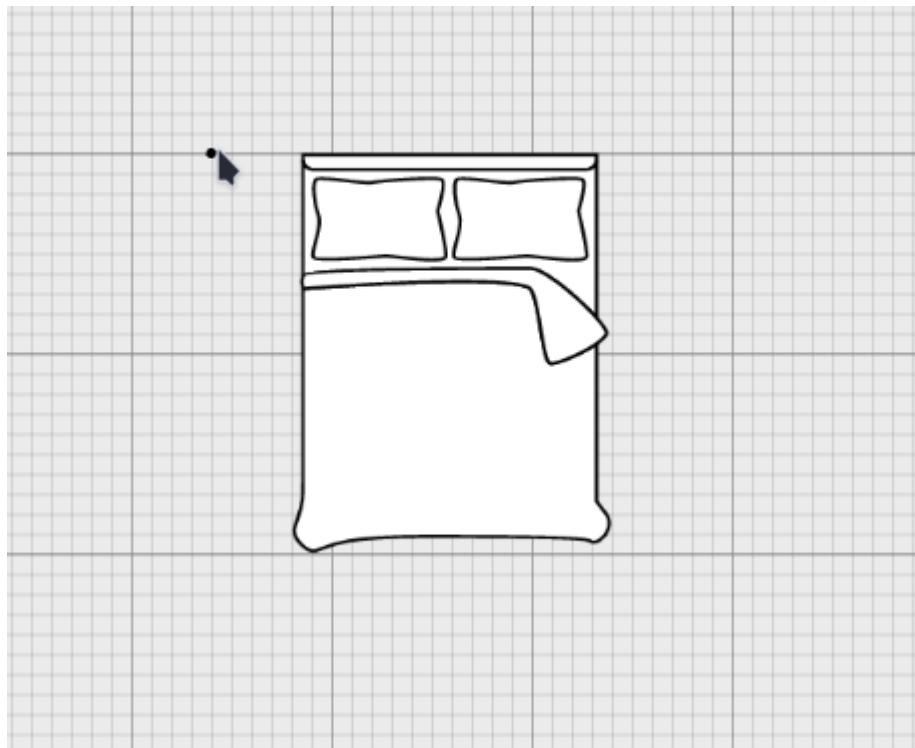
🛏 Add/edit furniture



🚪 Add doors/windows



Measure tool



★ Accurate to scale

★ Multiple floor support

★ Print your designs

★ Save/load support

★ Component library with plenty of options



Tech stack and docs

Client built using React, Pixi.js, Zustand, with Mantine as the component library for the UI. The floor plan engine is custom built.

Server-side powered by Express.js, using MongoDB with Mongoose as ODM.

[SERVER](#) [SOURCE CODE](#) [VIEW](#) [DOCUMENTATION](#)

Quick setup

Clone this repo and the [arcada-backend](#) repo. Run the following:

```
npm i  
npm run start
```

Launch the back-end using [node app.js](#).

Demo

[DEMO AVAILABLE](#) [ARCADA.NICOLETA.CC](#)



Cave Run

[GitHub link](#)

Introduction

This game was created as part of the Introduction to Robotics course I took during my 3rd year of studying Computer Science @ University of Bucharest, Faculty of Mathematics and Computer Science. It is written in C++ and the Arduino libraries, and was created during the span of a month.

I chose this game because I believed that it would best fit the restrictions of the hardware (8x8 single-color led matrices don't allow lots of expression 😊). I also wanted to implement a game with a panning camera, I

thought it would be an interesting technical challenge.

I'm not aware of any other game that plays similarly - I'd call it a bit similar to Minesweeper, but that's about it.

Game description

🔥 **Cave Run** 🔥 is a game where you must *escape as many rooms as you can* in 60 seconds 😊.

To exit a room, you must collect all the keys 🔑 while avoiding the bombs 💣.

The bombs are buried underground, but thankfully you are equipped with your trusty radar 🛰 that warns you if you're approaching a bomb.

Don't get blown up! 💣

Features

😊 Complete menu

🌐 Procedural generation

☒ Multiple difficulty settings

☐ Multiple room sizes

🏆 Scoreboard

🛠 Customizable settings

🎹 Theme song and sound effects!!!! as well as a muting option

↑ Power-up: on click, see bombs in room

🎉 Endless fun!

How to play



Move the joystick to move the player around the map



Press the joystick button to enable powerup - see hidden bombs

You can only use this once per game!



60 seconds - complete as many rooms as you can in that timeframe



Collect all the keys to escape the room and don't step on the bombs!



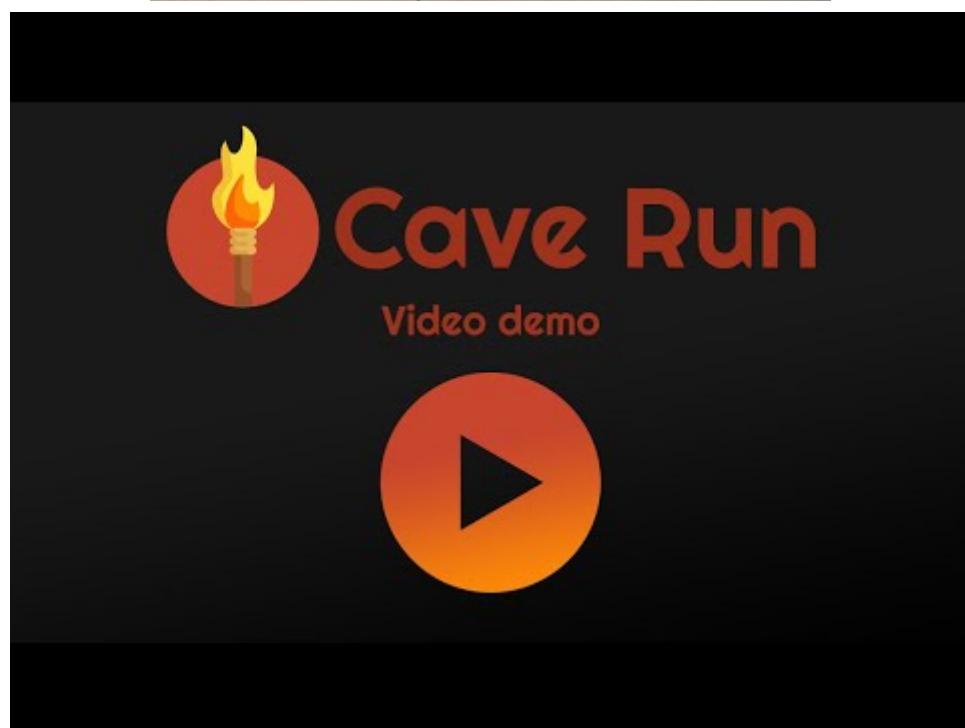
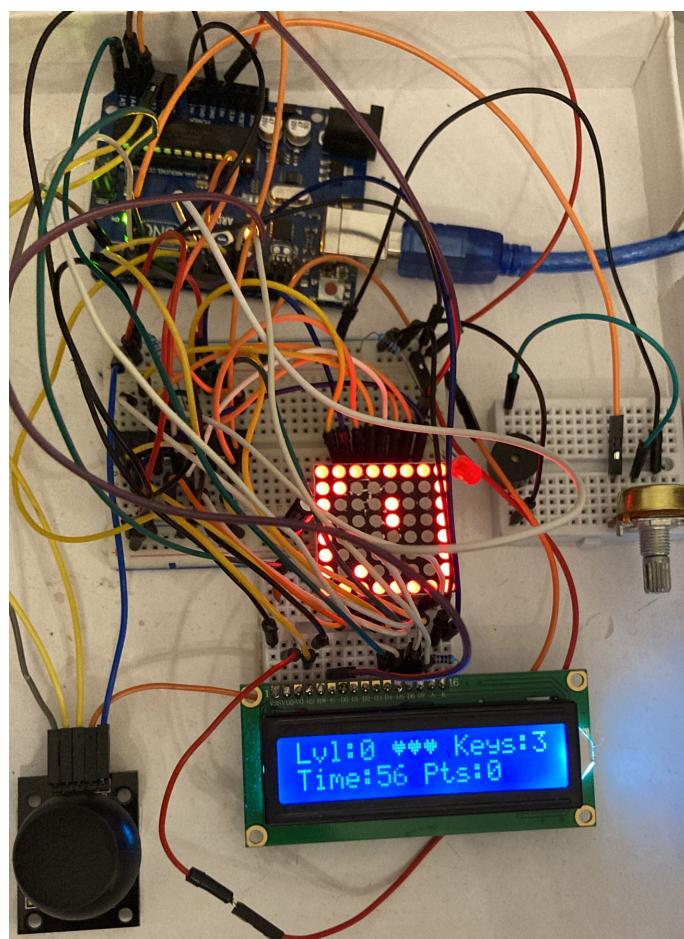
Watch the LED radar - it lights up when close to a bomb

Components

- 💥 1 Arduino Uno
- 💥 1 8x8 LED Matrix
- 💥 1 16x2 LCD
- 💥 1 joystick
- 💥 1 passive buzzer
- 💥 1 10k Ohm potentiometer
- 💥 1 matrix driver
- 💥 1 red LED
- 💥 lots and lots of wires

[Technical documentation -> click here](#)

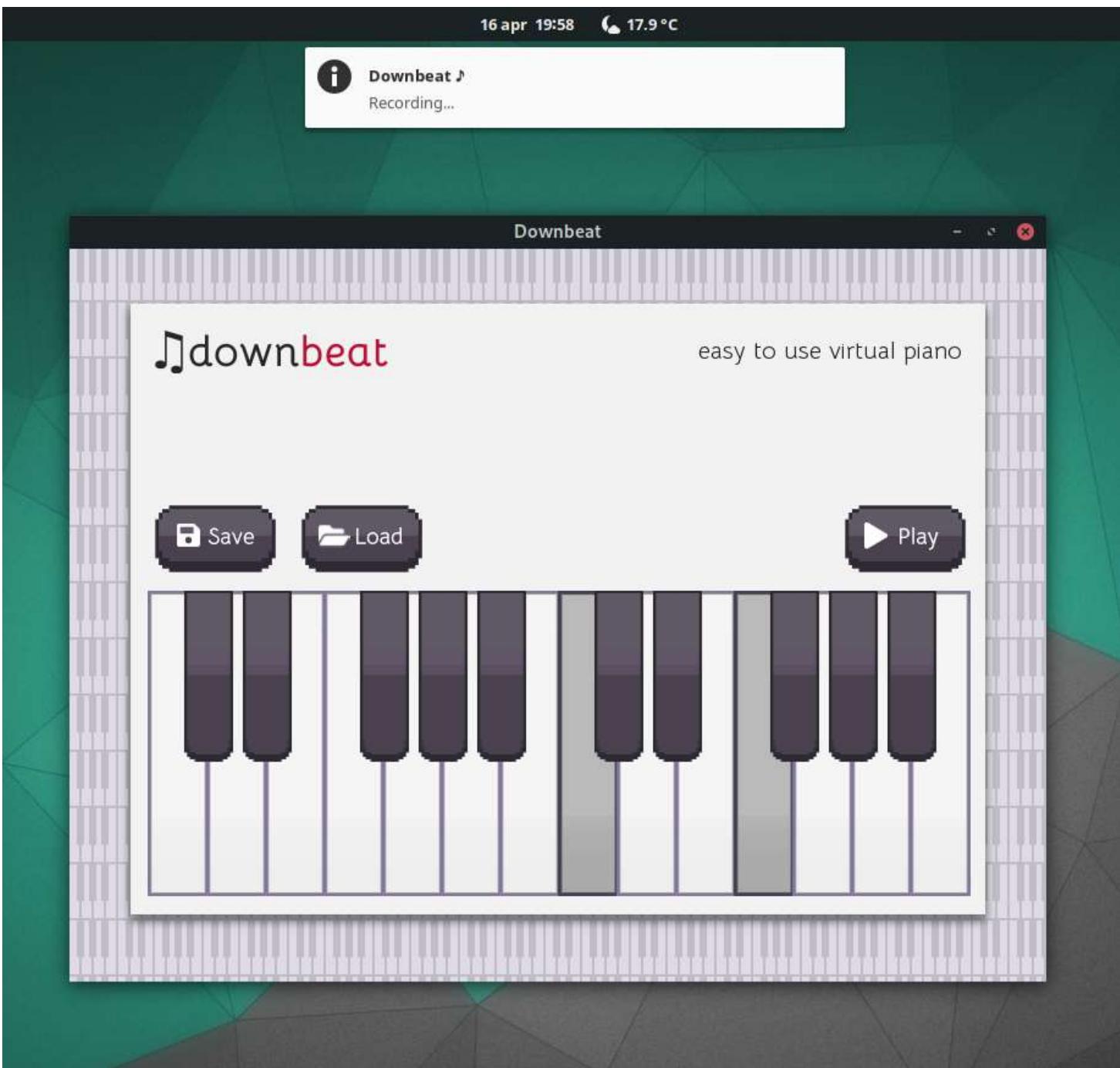
Photos and Videos



Downbeat



Small playable virtual piano, written in C++ - (OOP, 1st year, 2nd semester) - [GitHub link](#)



Features

- Play notes using mouse clicks/keyboard
- Press 1 or more notes at the same time
- Record and save your songs
- Load and play saved songs
- Intuitive interface
- Runs on Linux/Mac

Installation

Please install Zenity (dialog boxes) and SFML (GUI):

```
sudo apt install zenity libsfml-dev
```

Then, in the root project folder, run `make` to compile the code.

Run using `make run .`

Pancake Tower

A puzzle game with level creation support - [GitHub link](#)

What is Pancake Tower?

Pancake Tower is a puzzle game, where the player has to perform different tasks, depending on the chosen gamemode. There are two gamemodes in Pancake Tower:

Puzzle Mode

- Complete the given puzzle, while avoiding death by spikes
- Interact with puzzle elements, and touch speed pads that increase your movement speed
- Puzzles keep increasing in size and difficulty, 10 different puzzle levels



Maze Mode

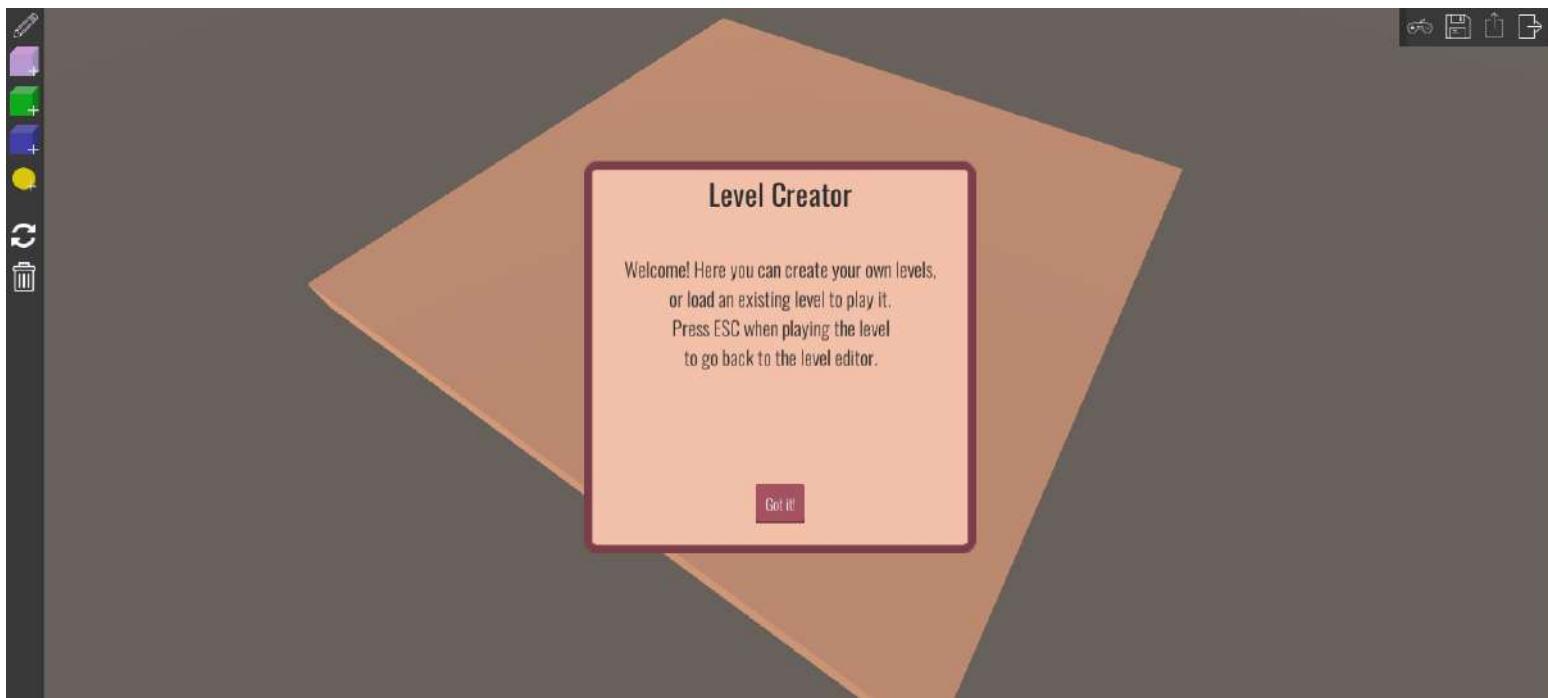
- Find the exit to the maze in as little time as you can!
- Collect coins to increase your score
- Mazes randomly generated using a recursive division algorithm



Besides the gameplay modes, the game also features level creation support, in an in-game built level creator.

Level Creator

- Easy to use, drag'n'drop interface
- Can play levels immediately after creating them
- Saving/loading level features



Technical description

Pancake Tower was developed using Unity 5.6.1. Scripting was done in C#. The menu assets were done in Photoshop. Theme song courtesy of [Agnet 75](#), who was so kind as to compose it specially for the game. Sound effects created using [Bfxr](#).

How to download Pancake Tower

If you already have Unity installed, you may clone the entire repository and open it in Unity. This enables you to play the game, as well as look through the source code, if you're curious about how the game works.

Otherwise, enter the Builds folder in the repo, and download the latest build.

Ripple

Habit-building daily learning app - [GitHub link](#)



Ripple

App that helps you learn something new every day!

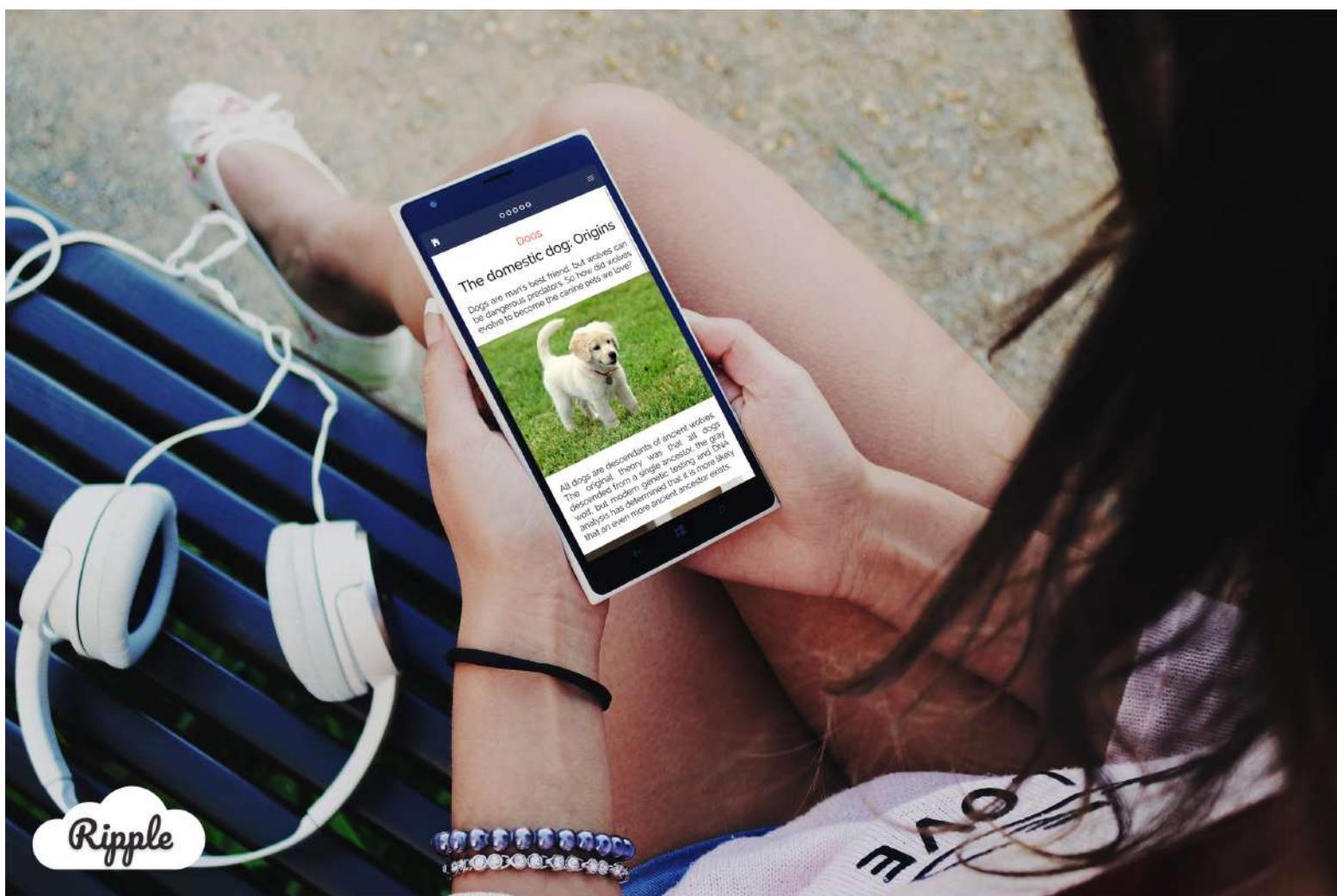
What is Ripple?



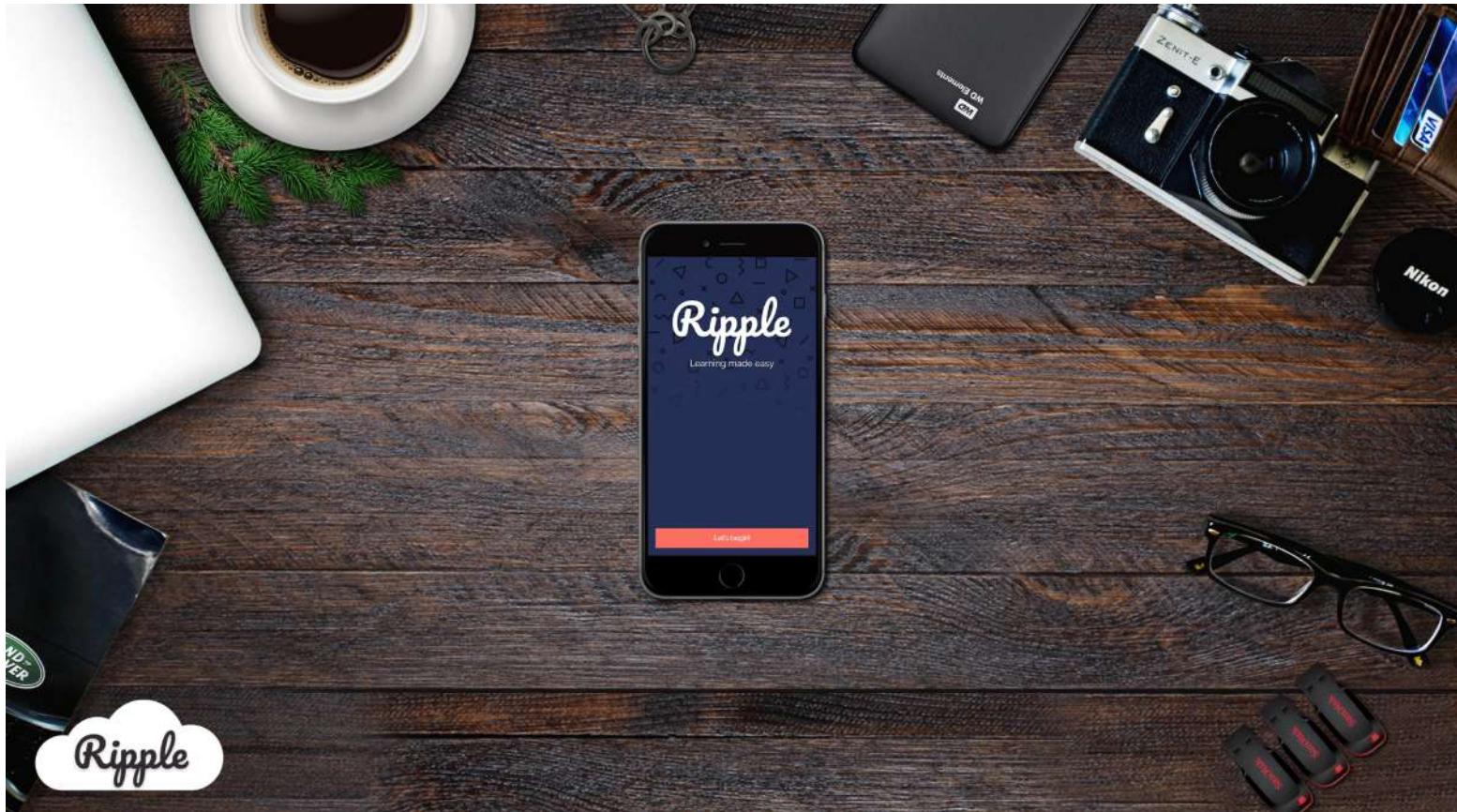
Ripple

Ripple is an app meant to help you find out interesting info about topics you're into. After a 5 minute setup, you're ready to go!

Bite-sized lessons



Receive daily new facts about the things you love! Save and share your favorite facts to your friends, and track your progress.

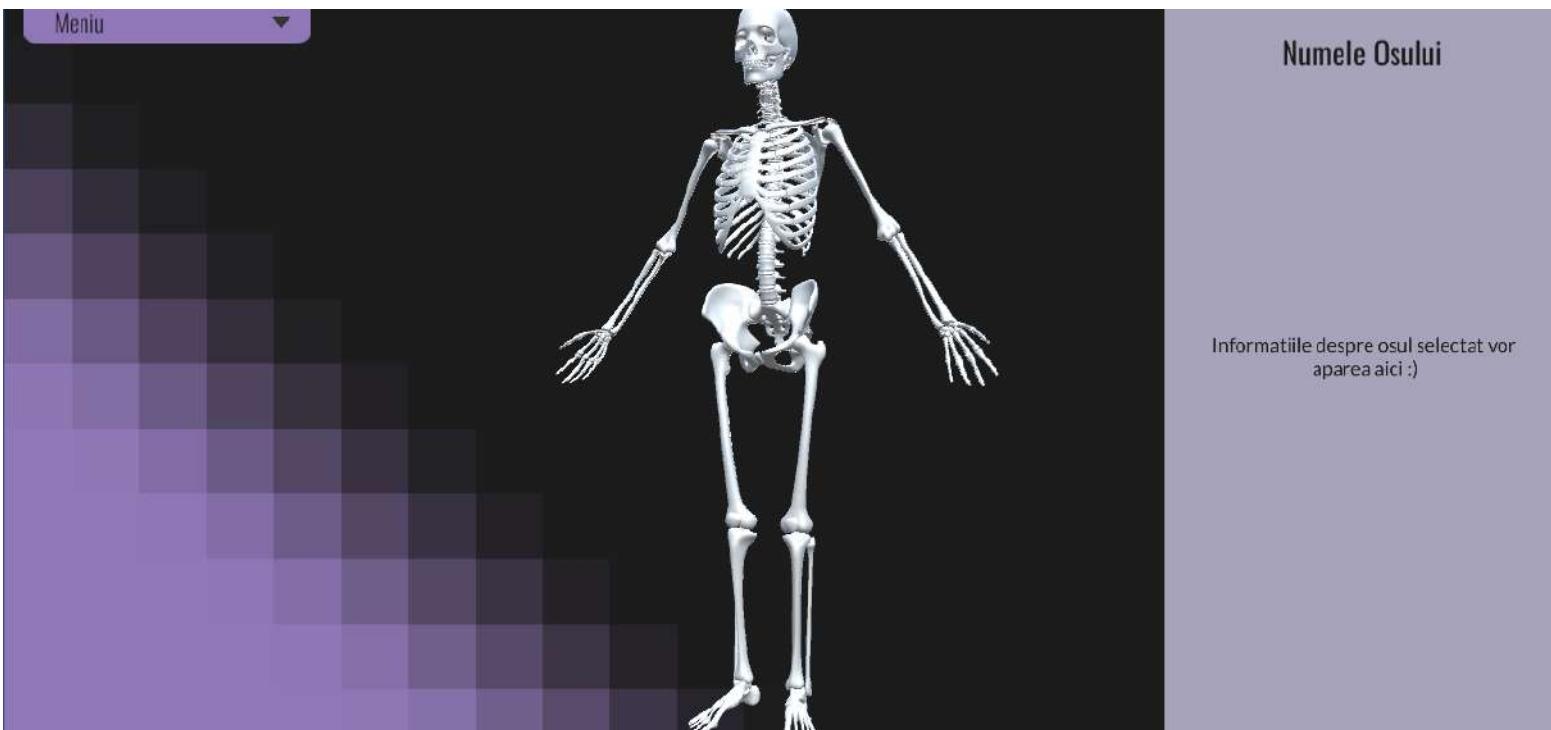


Available both online and offline, to accomodate your journey through gaining knowledge. Start using Ripple now!

learnAnatomy

Educational software that helps students learn the structure of the human skeleton - [GitHub link](#)

See learnAnatomy in action here!



LearnAnatomy is an educational software that aims to help high school students with studying the human skeleton. The app was created with the 11th grade anatomy curriculum in mind.



Invata
Joaca
Inchide



You can both study, as well as test your knowledge through interactive games and tests.

The learning section of the app presents the human skeleton in 3D. The user can rotate, zoom in/out, resize it or filter which bone groups to see. On clicking on a bone, the user will be able to see it in detail, as well as read some information about it.

You can also see the human skull in 3D, with all the bones it is composed of.

The knowledge testing section features 2 mini-games as well as a quiz.

- Guess the bone – The player is given the name of a bone and needs to click it on the skeleton. For each correctly identified bone the player receives 1 point. If the player decides to give up, he can choose to be shown the bone in order to remember it for the future.
- Puzzle – The player needs to reassemble the human skull.

- Quiz – The player is given a randomly generated quiz from a selection of 30 questions.

There also exists an additional utility software which is meant to help professors create their own quiz files.



Mandibula

Oasele craniene

Oasele faciale

Dentitia

Osul hoid

Ajutor

Iesire

Meniu

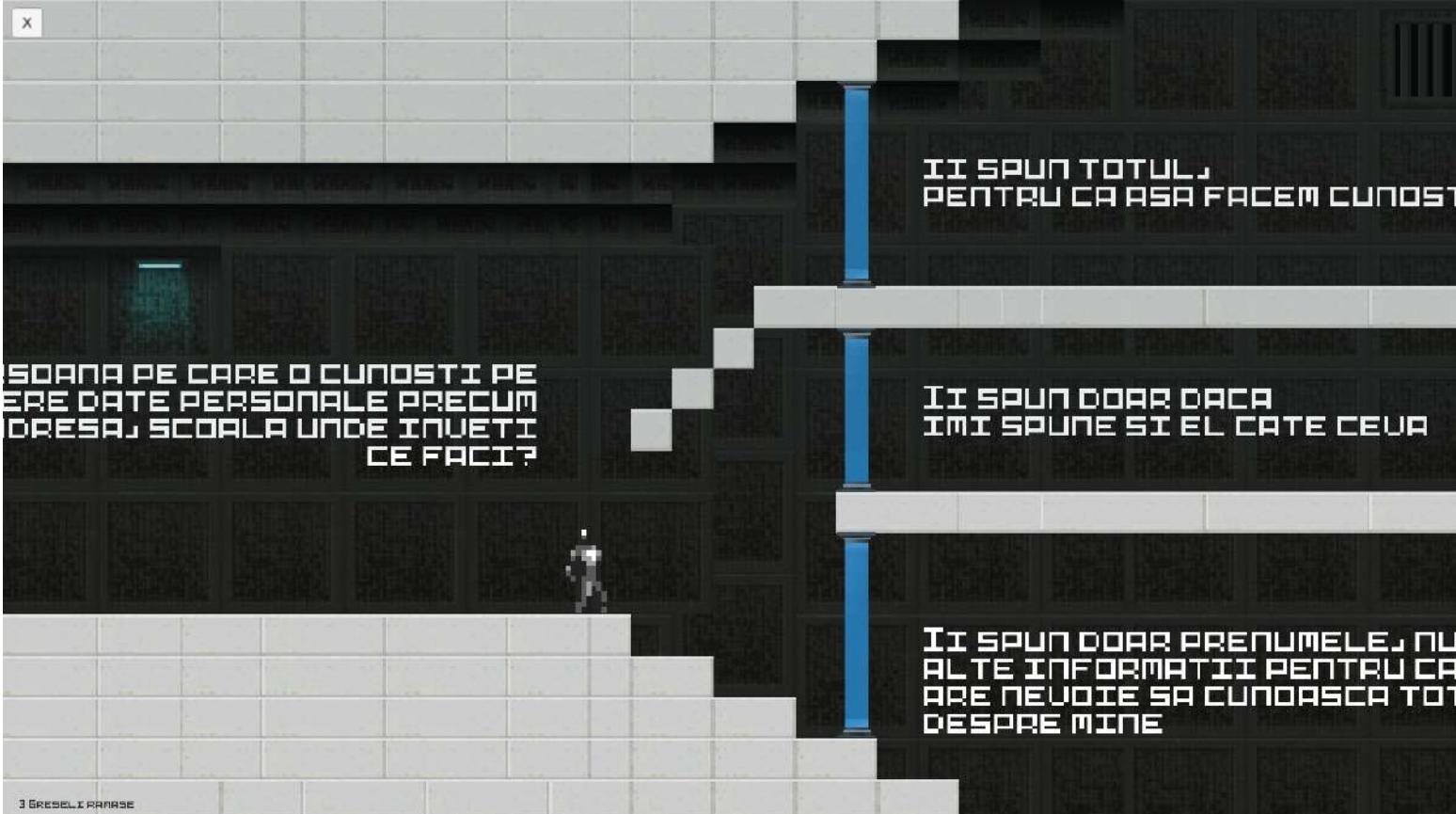
Mandibula sau maxilarul inferior este un os median și nepereche situat în partea inferioară a feței; este singurul os mobil al scheletului visceral. Mandibula este formată din două jumătăți simetrice, independente la naștere și sudate pe linia mediana la adult. Prezintă un corp și două ramuri. Corpul în forma de potcoava are 2 fete (externă, internă), 2 portiuni (superioară - porțiunea alveolară, inferioară - baza mandibulei) și 2 margini (inferioară, superioară); pe marginea superioară (arcada alveolară inferioară) se află dintii mandibulari.

Inapoi

Software created using Unity 2017.1.2f1, written entirely in C#. UI elements created using Photoshop. The information used is stored in JSON format. The 3D models are part of BodyParts3D (<http://lifesciencedb.jp/bp3d/>) and are used under CC BY-SA 2.1.

Enigma

Joc despre siguranta pe internet - [GitHub link](#)



SOANA PE CARE O CUNOASTI PE
ERE DATE PERSONALE PRECUM
ADRESA, SCOALA UNDE INVETI
CE FACI?

II SPUN TOTUL,
PENTRU CA ASA FACEM CUNOSTI

II SPUN DOAR DACA
IMI SPUNE SI EL CATE CEVA

II SPUN DOAR PRENUMELE, NU
ALTE INFORMATII PENTRU CA
ARE NEVOIE SA CUNOASCA TOT
DESPRE MINE

3 GRESELI RARSE

Ce este Enigma?

Enigma is an interactive adventure aimed towards middle-school students. The game aims to teach children about safety on the web through a series of minigames.



It is composed of 6 lessons, each with its own interactive way of teaching, as well as a Lessons module where pupils can recap the information acquired by playing the game.



Blackout

A randomly-generated maze game - [GitHub link](#)



What is Blackout?

Blackout is a game where you need to escape dark mazes, while equipped with only a lantern. The game has two modes, each with its own particularities:

Time attack mode

- Complete as many puzzles as you can within the time limit
- Pick up buffs that help you along the way
- The puzzles keep increasing in size and difficulty

Puzzle mode

- Roam around a maze and find the 4 diamonds needed to unlock the door
- Escape the maze in as little time as possible
- Pick up items to help you along the way

See **Blackout's** gameplay [here](#).

How to download Blackout

If you already have Greenfoot installed, you may download the *Source Code* folder and run the *project* file. This enables you to play the game, as well as look through the source code, if you're curious about how the game works.

Otherwise, enter the *Builds* folder, and clone the folder of the last version of **Blackout**. This will enable you to play the game without having Greenfoot installed. However, you still require the JRE.

Note: It is also possible to only download the .jar file if you want to play the game, but do not care about the scoring system. The other 2 files are only for score management and do not impact the game otherwise.

For the sake of keeping, beta versions of **Blackout** will also be provided, however, they are highly incomplete at best and downright broken at worst. Only the finished releases of **Blackout** will have a pre-built .jar file.

Credits

Even though Blackout is an indie project, the game wouldn't be here today without the help of:

- [Agnet 75](#) - For the theme song
- [Lanea Zimmerman](#) - Tiny16 Texture Pack - Partially edited and scaled
- [Juhani Junkala](#) - 512 Sound Effects Pack - for the sounds for clicking buttons and picking up items
- [Pennomi](#) , [Buch](#) , and [cemkalyoncu](#) - Ui Elements (specifically, the menu buttons and Score window)
- [danpost](#) - Who answered to lots of my questions about writing the code