Goals

- Simple retro-themed dungeon crawler
- Re-usable game framework on top of LWJGL

Code Features

General features

- Easily extensible **base framework**, decoupled from the actual game.
- **OpenGL 2D** rendering (with abstraction for easy textured quad rendering)
- **Audio**, **Font** & **Texture** systems

Notable subsystems

- Screen based UI with layers
- UI components, layout managers
- **Event Bus**, providing communication channel for all game parts
- **ION** - binary serialization & data storage system
- **Constraint Framework** for dynamic UI positioning and sizing (and other uses)

Used libraries

- **LWJGL** (OpenGL & OpenAL support)
- **SlickUtil** (texture loader, audio system)

Game Features

- Real-time action
- Monsters with AI (Gray, Brown and Boss rat)
- Collectable items (weapons, food)
- Random floor generator, corridors built using A*
- Level saving / loading

Working directory

- The game saves logs, config file (for editing keys) and game saves into a working directory
- This is usually located at **~/.rogue-save** on Linux, or in %APPDATA% on Windows (the same like with Minecraft folder).
- If you start the game with the "`-w your_folder`" command-line option, it will store data in the `your_folder` directory. This is useful for debugging.

Building from source

(The source will be published soon on GitHub)

The project is equipped with a Makefile to make Jar creation easier.
This is because the Jar needs to contain natives for LWJGL and it wouldn't normally work.
The technique used is based on JarSplice by NinjaCave.

How to build a Jar

1. Export a jar with the `mightypork` package and subpackages, and the `res` folder into `build/in/build.jar`
2. CD into `build`
3. Run `make` to create a stand-alone executable jar in **`build/out/release.jar`**
4. Use `make_run` to execute it

Game controls

The game is controlled by mouse and keyboard.
All keys can be changed using the config file.

Global controls

ESC	Leave a screen / dialog
Ctrl+Q	Quit the game
F2	Take a screenshot
F11	Toggle fullscreen

In-game controls

Arrows	Walk, **attack**, interact with tiles
E	Eat the smallest food from inventory
Z, Wheel	Toggle zoom (show larger portion of the map)
M	Toggle minimap
I	Toggle inventory
D	Drop last picked item
P	Pause the game
Left mouse	Hold: Walk in direction Click: Attack / interact with tile next to player
Right mouse	Find path to clicked tile

Game instructions & info

Objective

After watching the intro story, this is clear:
Defeat the rat boss and retrieve the stolen beer!

How to play - strategy

- **To open a secret door, press the walk key in that direction twice.**
- **To fight, walk into enemies.**
- **To gain health, eat some food - press E**
- **To open a chest, "attack" it twice.**

- It's always a good idea to **explore the level completely**
- All levels with even number (2, 4, 6) contain a **heart piece**. Make sure you've found it!
- Try to find all **secret rooms**, they contain valuable food / items.
- To get food, find secret rooms and kill rats.
- You can eat also in combat!

- **Save the game often, but wisely.**

World composition

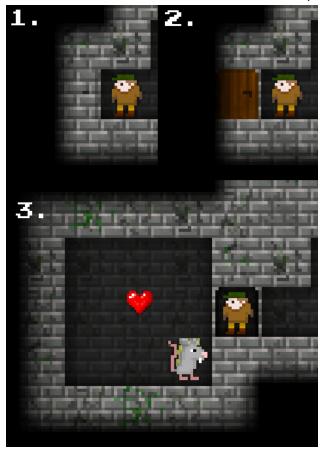The world has 7 floors (levels) with increasing difficulty and complexity.

Level contents:
- **Entrance** (stairs up)

- **Exit** (stairs down) - except the final level

- **Heart Shrine** - secret room with a heart item (HP capacity +1) - on floors 2, 4, 6

- **Treasure Room** - one or more - secret room with food and other items
- **Mobs** - gray, brown and boss rats
- Random rooms
- Randomly placed **items**
- Some of the deeper levels hold an **unique bonus weapon**. Those are in a chest.

User Interface

Those screenshot are valid for version 3. They are for illustration only.

Main menu

The menu is subject to change, but the general functionality is given - clickable buttons with actions.
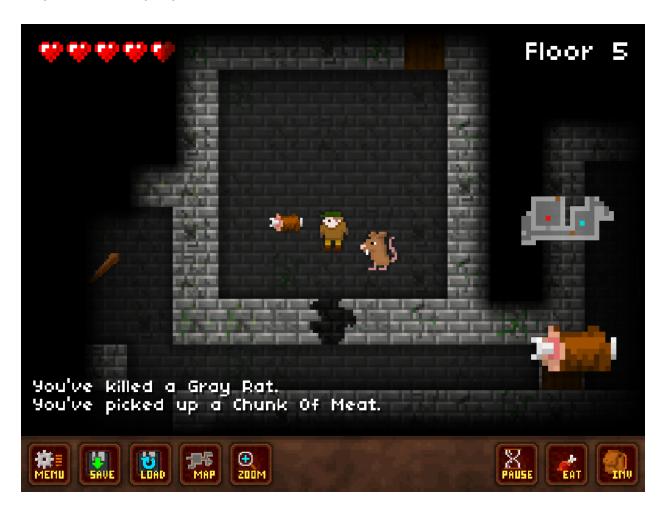
Save slot selection screen

In-game interface

Fully controllable by keyboard, or mouse.

Left top	Top right
● Health bar	● Level number, [P] if paused ● Minimap - shows explored regions
Bottom left	**Bottom Right**
● World Console - comments about what happens in the game ● Control buttons	● Item display - after item pick-up, it's shortly displayed here ● Control buttons

Inventory dialog

Inventory screen, opened by pressing **I** or via the **INV** control button.
Press **ESC** or **I** to close the inventory screen

- The **selected slot** has red background, move it by arrows or clicking
- Items display **Damage**, **Attack points** / **Heal points**, and **amount**.
- **Yellow asterisk** marks equipped weapon.
- Each item has different actions when selected, shown the bottom text field.