

The slide features a dark blue background with decorative geometric patterns on the left and right sides. These patterns consist of overlapping chevron and arrow shapes in yellow, magenta, and light blue, some with grey outlines.

Dunjeon Crawler

Dunjeon Masters

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Anthony D'Ambrosio (PO)
Jordan Hyman
Rachelle Tanase
Scott Chatham

What is Dungeon Crawler?

- Fantasy roguelike
- Features perma-death, monsters, magic, traps, and much more!
- Written in Clojure with the playclj library

Goals

- Make a functioning game
- Support multiple, procedurally generated floors with various monsters and traps
- Allow players to customize their character
- Implement items such as armor, weapons, and potions
- Implement mercantile mechanics
- Allow loading/saving of games
- Support spell casting and skills

Challenges

- Clojure and playclj
- Designing
- Brute component and entity system



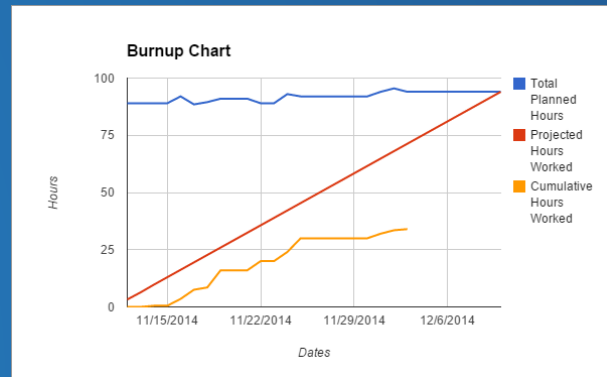
- Clojure
- Playclj

-
- The grid world is a 20x20 square environment. The background is black. Green 'X' marks form a grid pattern, with some cells being solid black. The environment contains several elements:
- Robot (white circle with 'R'):** Located at row 10, column 10.
 - Goals (blue circles with letters):**
 - 'S' at row 2, column 7.
 - 'S' at row 5, column 2.
 - 'S' at row 12, column 19.
 - 'P' at row 10, column 10.
 - Obstacles (various icons):**
 - Red exclamation marks (!) at (2,10), (3,4), (4,1), (5,9), (10,19), (12,18), (13,19), (14,18), (15,19), (16,18), (17,19), (18,18), (19,19).
 - Yellow squares at (2,8), (3,19), (4,12), (5,15), (6,12), (7,19), (8,12), (9,15), (10,12), (11,15), (12,12), (13,15), (14,12), (15,15), (16,12), (17,15), (18,12), (19,15).
 - Grey rectangles at (6,7), (7,8), (10,7), (11,8), (14,7), (15,8), (18,7), (19,8).
 - Green asterisks (*) at (8,7), (9,1), (12,1), (15,1), (18,1), (19,1).
 - Blue circles with letters 'B' at (3,15) and 'P' at (10,10).
 - Red circles with exclamation marks (!) at (10,19), (12,18), (13,19), (14,18), (15,19), (16,18), (17,19), (18,18), (19,19).
 - Yellow squares at (2,8), (3,19), (4,12), (5,15), (6,12), (7,19), (8,12), (9,15), (10,12), (11,15), (12,12), (13,15), (14,12), (15,15), (16,12), (17,15), (18,12), (19,15).
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 - Blue circles with letters 'B' at (3,15) and 'P' at (10,10).

Project Management Techniques

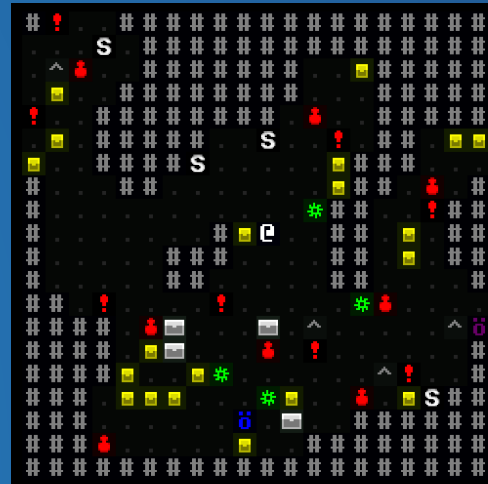
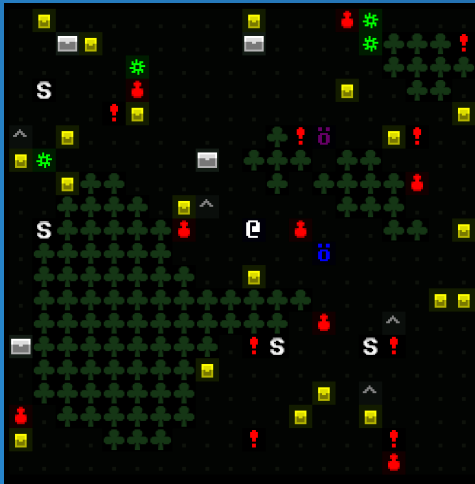
- Digital Scrum Board
- Digital Burnup Chart
- Scrum Meetings
- GitHub

User Story	To Do	In Progress	Done
Color your in progress tasks the colors on the left. If you don't like your color, change it.			
As a user, I want to use magic and spells [so that I can have a larger variety of attacks]			Create a Magic component (0.5 h)
			Design spells (1 h)
			Implement 1 spell (1 h)
		Make sure the player can use spells (2 h)	
As a user, I want to encounter boss monsters [so that the game is more challenging]	Randomly give player chance to learn new spell every X level (2 h)		
		Implement as many spells as possible (15 h)	Design boss monsters (1 h)
	Implement floor for boss monster (4 h)	Implement boss monster (5 h)	
	Implement level so that it appears every X floors (2 h)		
As a user, I want to encounter merchants [so that I can sell my items and purchase items I would not be able to get through other methods]	Only allow the portal to appear after the boss defeat (1 h)		
	Implement as many boss monsters as possible (15 h)		
			Add Merchant NPC to game (1 h)
			Implement item inspection (5 h)
			Implement gold transaction/lookup items (2 h)
			Implement junk - gold conversion (interact with merchant) (2 h)
			Implement Merchant Floor (4 h)
			Implement Merchant Portal (2 x 2 h)



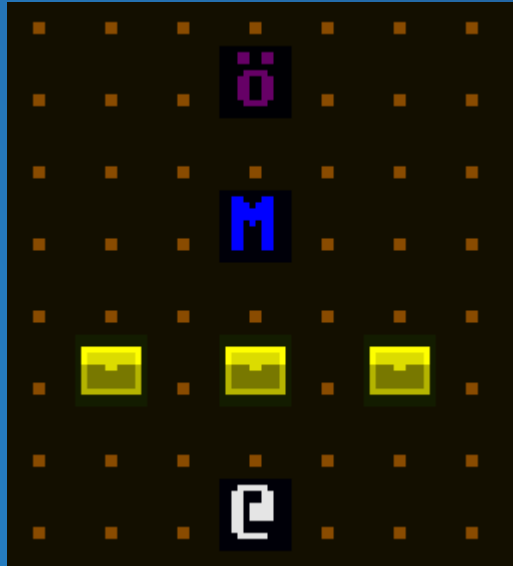
Things We Liked

- Freedom to choose project
- Design aspect
- Programming in a functional language



Things We Didn't Like

- Lacking documentation
- Planning poker (estimating time)



Lessons Learned

- Learning to a new language takes time
- Overestimate time needed rather than underestimate
- Don't be afraid to put user stories in the backlog

Public Access

- Snapshot of Dungeon Crawler available at <https://github.com/dunjeon-masters/dunjeon-crawler>
 - Installation instructions in README

Questions?