Topdown Shooter Documentation

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Changes to the design

There were no significant changes. I wanted to add different monsters, but decided to add different spells first.

Requirements met

Media requirements

Sound

- Have BGM for the gameplay screen. I had title and gameover songs picked out too, but didn't have time to rework my pause system so that they could actually play (since the Phaser pause stops everything, including music).
- Have effect sounds for spells, damage and pick ups
- All in MP3s, because they're compatible with every browser except Opera Mini and I didn't want to have duplicate files with other formats

Images

- All PNGs

Fonts

- Used two webfonts

Canvas

- Used Phaser framework
- Animations are used in the Magic Dart spell, the mana pickups, and enemies
- Particle system is used by the Mind Blast spell

Interaction requirements

- Controls use mouse and keyboard
- Mapped to WASD and arrow keys

- Used Phaser's keyboard methods
- Shift + arrow lets you run

Usability requirements

- Pauses if you change windows or press P
- Teaching: menu screen has instructions
- Feedback: score is displayed, and there are health and mana meters as well as audio feedback when the player is hit or runs out of mana
- Difficulty: spawn rate starts out lower and increases with score
- Title/instructions screen + Game screen + Game over screen

Extras

- Kept track of high scores
- Made the spell system fairly modular so that adding new spells should be really easy
- Used tweening effects to make the enemies fade out, and to animate the mana bar
- Mana bar displays how much mana was used in a short amount of time
- Added alternative controls for players using a trackpad instead of a mouse
- Worked hard on that title screen!

Resources

Tutorials and examples:
http://phaser.io/examples/v2/camera/deadzone
http://phaser.io/examples/v2/games/tanks
https://github.com/BdR76/phaseranimals/blob/master/grouptest.js

Images
Wizard by Xarius, available under CC-BY-3.0
Magic dart by chabull, available under CC-BY-3.0. Modified by adding colors and pasting into a spritesheet.
Mana pickup by Tatermand, available under CC0. Modified by adding different brightness levels and rotations.
Slime by Stephen Challener (Redshrike), available under CC-BY-3.0, hosted by OpenGameArt.org
Grass background by surfacecurve, available under CC0
Heart by shinzohotoroki, available under CC0

Grade

As self-serving as it might sound, I honestly give myself an A on this. I worked really hard on this project and paid special attention to details like the mana bar animation, giving the player feedback on how much mana their spells spend, and I tried to design the code so that it could be easily extensible to add more spells. Some of the code (pickups and enemies) is still a little messy from when I was learning Phaser, and if I had the time I would rework the enemy class so that it's like the spells and allows for new types of enemies to be easily created.