DIGM-530 Development Diary/Blog

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3 April 2022

Group conducted a thirty minute Zoom call to review game design, and discuss after thoughts from the last class. We've decided to do a more simpler puzzle type of game, and incorporate mechanics similar to a table-top game called Potion Explosion. The general premise would be a candy-crush or bejeweled type of game where you can move objects in a row or column to mine for resources. The resources correspond with an indicator in the lower right (a meter, or some indication of how many of each resource the player would require). While playing, the player must be mindful of not only the resources they need, but the ones they do not, because there's always the possibility that an "explosion" (working on exact mechanics or terminology) will occur while collecting resources and they take resources that they do not need. This results in a "mixture" that could potentially end their game (flushing out this mechanic even more).

Possible additions would be overflow "pools" that resources could go into, but only unlocked as you advance levels.

More TBD.

Potion Explosion Tabletop Game:
https://www.youtube.com/watch?v=iSODqRFNe3I

- Matt

8 April 2022

Flushed out more mechanics, came up with specific game design. Divided up duties for first deliverable (pitch):
- Graphics and Design: Golshid and Josiah
- Wireframing, game documentation: Vandana and Matt.

- Matt

11 April 2022

Added concept art and wireframing to the design document. Discussed what the different color potions would do. Introduced a new mechanic of a "shield" to take one "hit" from the antagonist.

Flushed out the story a little more (motivation, where did Headmaster Magnus go?).

Simplified the potion mixing mechanic.

Created pitch slideshow.

- Matt

14 April 2022

Restructured game document for submission.

- Vandana and Matt

16 April 2022

Began development of game using Game Maker Studio 2:

- Created Room
- Downloaded free sample assets from Craftpix:
    - "Foreground" tile
    - "Background" tile
    - "Grid" tile
    - "Minerals" tiles
- Created game controller object.
- Created mineral grid population scripts using an array.

17 April 2022

- Created mineral randomizer so that minerals appear random. Ran into a problem with minerals appearing three in a row (Match 3 configuration) when the grid is populated.
- Figured out a way to randomize the mineral population.

- Matt

18 April 2022

- Started to create "swipe" and "match3" code for grid mechanics. Ran into a problem where the grid will only check for a match to the right, and even when properly matched it won't register as a match. After a few tries the game crashes.
- Asked for some assistance in the GMS2 Discord, recommended to include a case/stepper and set up the match checking as alarms. Also slight code change per recommendation on the actual swipe up/down/left/right.
- Fixed the grid mechanics so now it properly matches 3, and also a click (tap) swipe in a certain direction indicates which direction the tiles should be swiped.
- Included a dithering effect when minerals are matched, and a falling effect when the minerals are repopulated.

- Matt

- Created the first protagonist concept, a wolf.
- Golshid

20 April 2022

- Started the timer countdown mechanic.
- Implemented timer countdown bar at the top of the grid.
- Adjusted game mechanics slightly, pulled out potion "overmixing", might put back later.
- Created Game Over / Game Win placeholder screens.

- Matt

- Concept art for the potions
- Josiah

21 April 2022

- Created Player and Enemy object.
- Created Player and Enemy health bars. Attached Albertus's health to countdown timer just as a test.
- Attached to match three or more to static HP against enemy as a test. Health bars reducing according to both conditions.

- Matt

Created the artwork for the potions
- 16 x 16 potions (Red, Blue, and Yellow)
- 32 x 32 potions (Half Red, Half, Blue, Half Yellow, Full Green, Full Orange, and Full Purple)
- Created the first level background for the artwork (however it won't be used for the test just yet).

- Josiah

22 April 2022

- Changed the potions in the grid to do different mechanics when matched:
  - Blue: Shield Activate
  - Red: Punch
  - Yellow: Kick
  - Skull: Deal Damage to Albertus
- Rewrote the code for damage and HP to be set via global variable and not constant inline code, as levels progress these values should be passed from the room creation, therefore no need to modify the code beyond just changing the variables (future planning).

- Matt

23 April 2022

- Discovered a major bug where match events aren't registering as individual potions. The first swipe (e.g. swiping red), will register red for all subsequent auto-matches on the grid even if they're not red.
- Reached out to discord for this, awaiting response.

- Matt

24 April 2022

- Discord community responded with recommendations. Implemented some code changes, swipes and matches now working as expected (verified via debug message output).
- Created additional sprites and objects for potion mixing.
- Created potion mixing logic.
- Created sprite animations to correspond with potion mixing.
- Compiled Windows, macOS, and HTML5 (Java) versions for playtesting. Sent to some individuals for feedback.

- Matt

25 April 2022

- Adjust values of HP and time to make game more "playable" and not "testable"
- Include BG image for level 1
- Consider how shield works – perhaps shift towards time and not health?
- Created Apple Developer Account for signing the code for building macOS bin.
- Configured GMS2 for macOS builds.
- Noticed scaling issues for Windows builds, fixed.
- Install GMS2 on a PC with VS2022 and build Windows-native bins.
- Attempt HTML5 build play – requires a web server, either remote or remote, with AMP. Settle on macOS and Windows builds as primaries.

- Matt

2 May 2022

- Sent out play-testing links and follow-up surveys for Alpha build.
- Review and prioritize list of suggestions/critiques from Alpha presentation.
- Delay in dev due to family members passing. Will try to get back to coding in the next two days.

-Matt

4 May 2022

- Gathered playtesting surveys. Not many came back, but overall positive feedback with constructive feedback. A lot of the same themes were echoed in the responses, primarily wanting more levels.
- Priorities for roadmap:
    - Include a short instruction/help screen that can be access from the intro screen describing gameplay. Gamers have now moved beyond reading separate documentation.
    - Add more levels.
    - Try and attempt to fix known issues.
    - Try and consider combos for more than match 3.

-Matt

7 May 2022

- Integrated new Albertus and first level enemy sprite.
- Changed level background.
- Worked on integrating sound into special moves.
- Created a new timer bar with a new countdown timer.

-Matt

8 May 2022

- Created tilesets for first level.
- Created "mid-ground" asset sprites for a "layered" look to the stage.
- Researched issue with sounds playing abnormally slow.
- Fixed sound issue.
- Crated logic for detecting which room is currently being played to change bg music appropriately.

-Matt

9 May 2022

- Created a new grid border, added a slightly dark "transparency" to the grid background to offset it from the backgrounds.
- Created new health bar borders, resized the health bars to be a little more attractive.
- Created backgrounds, tilesets, and "mid-ground" assets for levels two and three.
- Integrated new enemy sprites into the game.
- Add new background music for levels 1 and 2.
- Compiled updated builds for Google drive. HTML will not be supported as evidently the export out of GMS2 is known to be problematic. Windows exec, WIndows Installer, and macOS DMG will be deployed. New README will be updated with release notes.

-Matt

18 May 2022

- Created Help Screens and Graphics.
- Created Navigation Buttons.
- Built in-game navigation (transitions between levels, game over, game won, intro and help).
- Final additions to music.
- Increased grid by 1 row and 1 column, as requested.

- Created both "Story Mode" and "Continuous Play" modes.

-Matt

- Created the BG Art:
    - Main Menu
    - Game Over
    - Game Completed Screens
    - Created the Professor Magnus

-Josiah

19 May 2022

- Cleaned up code, cleaned up objects, sprites, and scripts that were no longer needed (e.g.: sound handler, etc).
- Decreased final boss HP by a little for better chances of winning; seemed too punishing.

-Matt

30 May 2022

- Packaged game for final delivery.

-Team