Trapomino Project Plan

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Part I -- Scope Management

Trapomino is a Tetris based game where the player takes on the role of a zoo keeper trying to recapture escaped animals. By rotating and placing tetromino blocks on a grid, the player must catch animals by creating “cages” with the shapes. The player must capture a variety of animals, each with different abilities that challenge the player in new ways. The player will advance through stages of increasing difficulty and new sets of animals until he reclaims all of the escaped animals.

Part II -- Requirements Management

Function

Abstract

Trapomino is a Tetris based game where the player takes on the role of a zoo keeper trying to recapture escaped animals. By rotating and placing tetromino blocks on a grid, the player must catch animals by creating "cages" with the shapes. The player must capture a variety of animals, each with different abilities that challenge the player in new ways. The player will advance through stages of increasing difficulty and new sets of animals until he reclaims all of the escaped animals.

Gameplay

Trapomino throws back to Tetris and Dr. Mario, with one major game mechanic change; instead of trying to create full lines with the blocks, the blocks are used to make shapes that contain animals on the screen. The blocks will not disappear which gives the animals the opportunity to escape. The robust AI will create a challenge that keeps the player on his or her toes in a new exciting way.

Enemies

The animals' AI will work in different ways to escape. Monkeys will jump higher than other animals. Beavers will chew through blocks. Rhinos will knock down blocks. Lions will attempt to eat other animals that the player must protect.

Interface

Navigation in Trapomino will be accomplished through three primary menus: a main menu, a level menu and a pause menu. The player will be greeted by a title screen displaying the studio and publisher name. A main menu will come available with the options "new game," "load game," "options," "credits," and "exit." Once the game is entered a level menu will display

the levels on a subway style map. The map will have unique levels with unique designs and sets of animals to face. A pause menu will be available in each level which will contain the options "resume," "save," "options," and "exit."

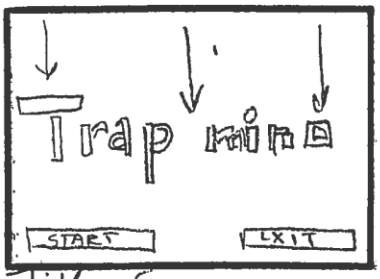
Multiplayer

Multiplayer capability will also be featured in Trapomino, allowing the player to compete both head-to-head with other players in live mode, and collectively with a leaderboard showing the total number of points a player has accumulated during his or her playthrough. In live mode, the player will send animals to the second player by caging them. One player will win by causing the other player to run out of space on the grid, or by trapping all of the animals on his grid. The multiplayer mode will be unlocked by finishing the tutorial modes, and can be played in a split screen environment.

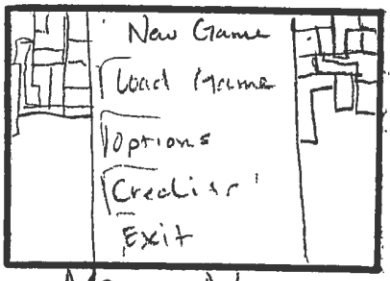
Storyboard

The Director in the Classroom • Storyboard

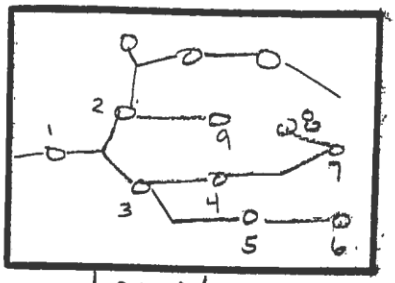
Title: Trapmind



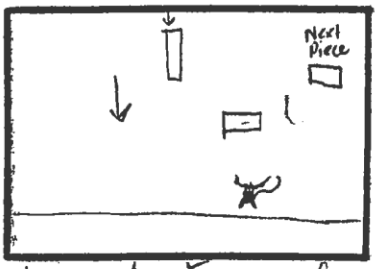
Title Screen



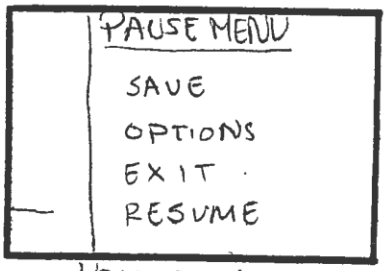
Main Menu



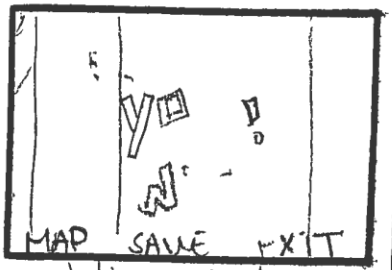
level select



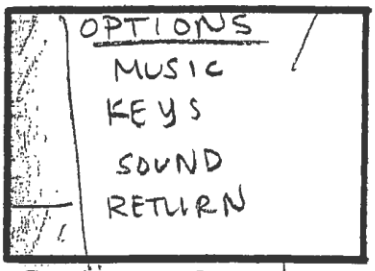
level Example



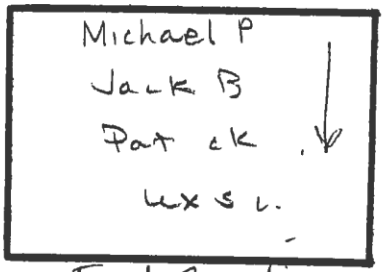
Inner



Win State
Level completion

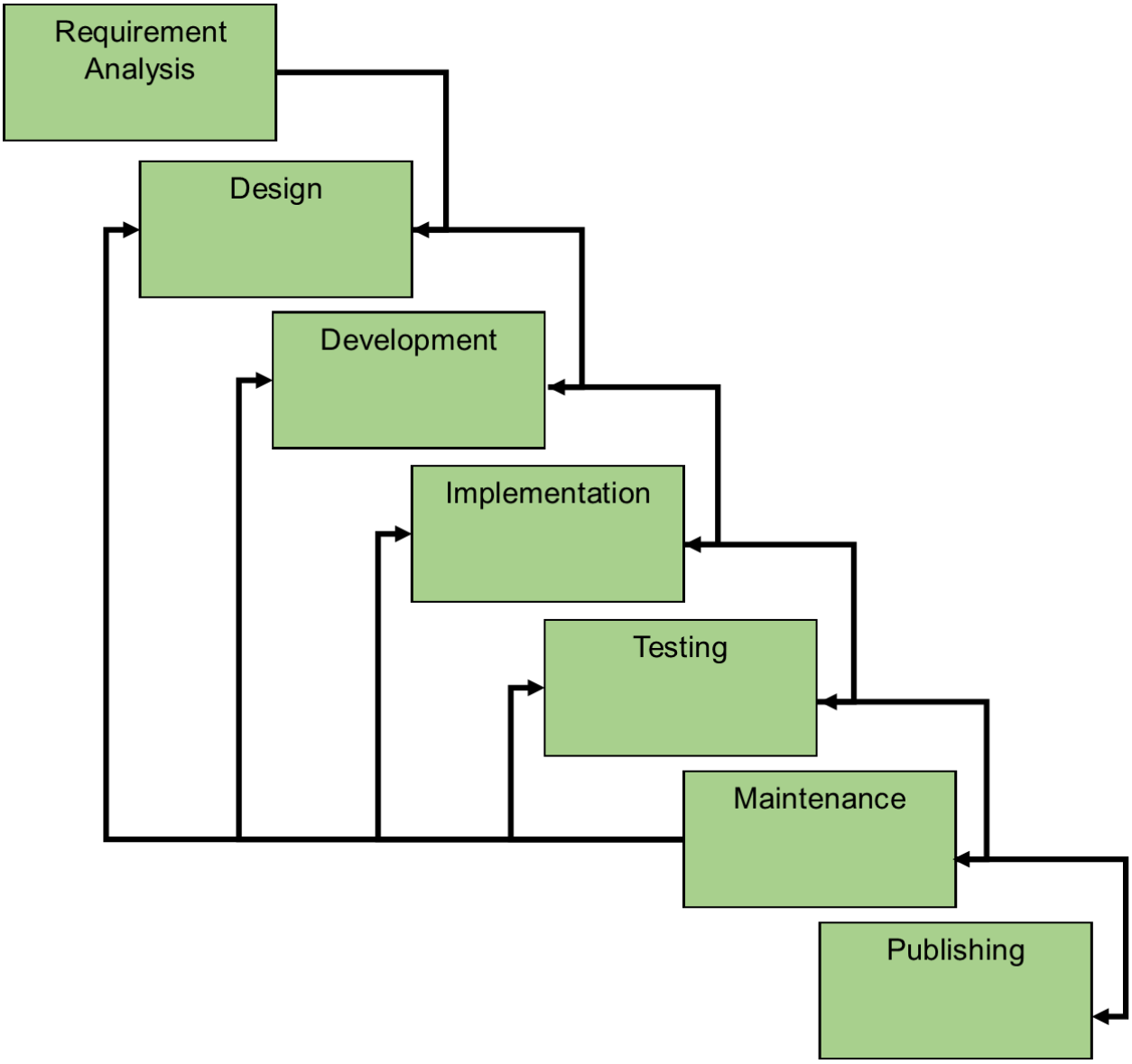


Options

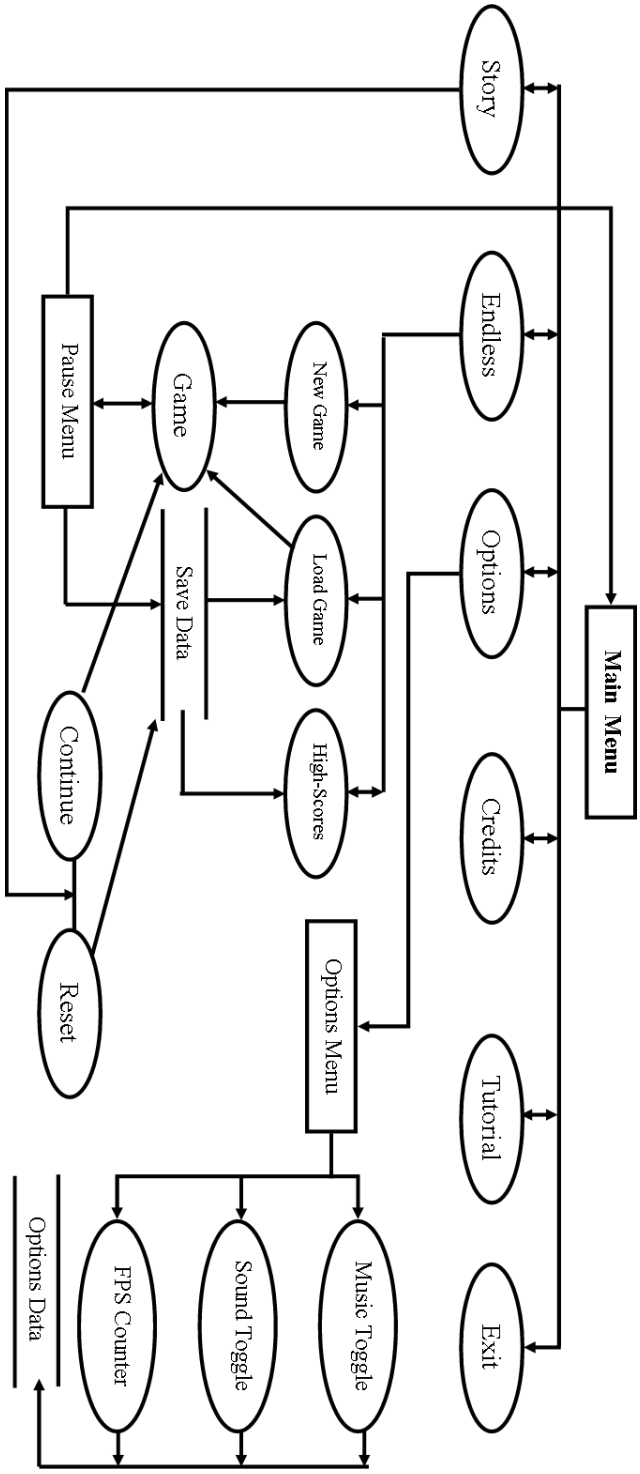


End Credits

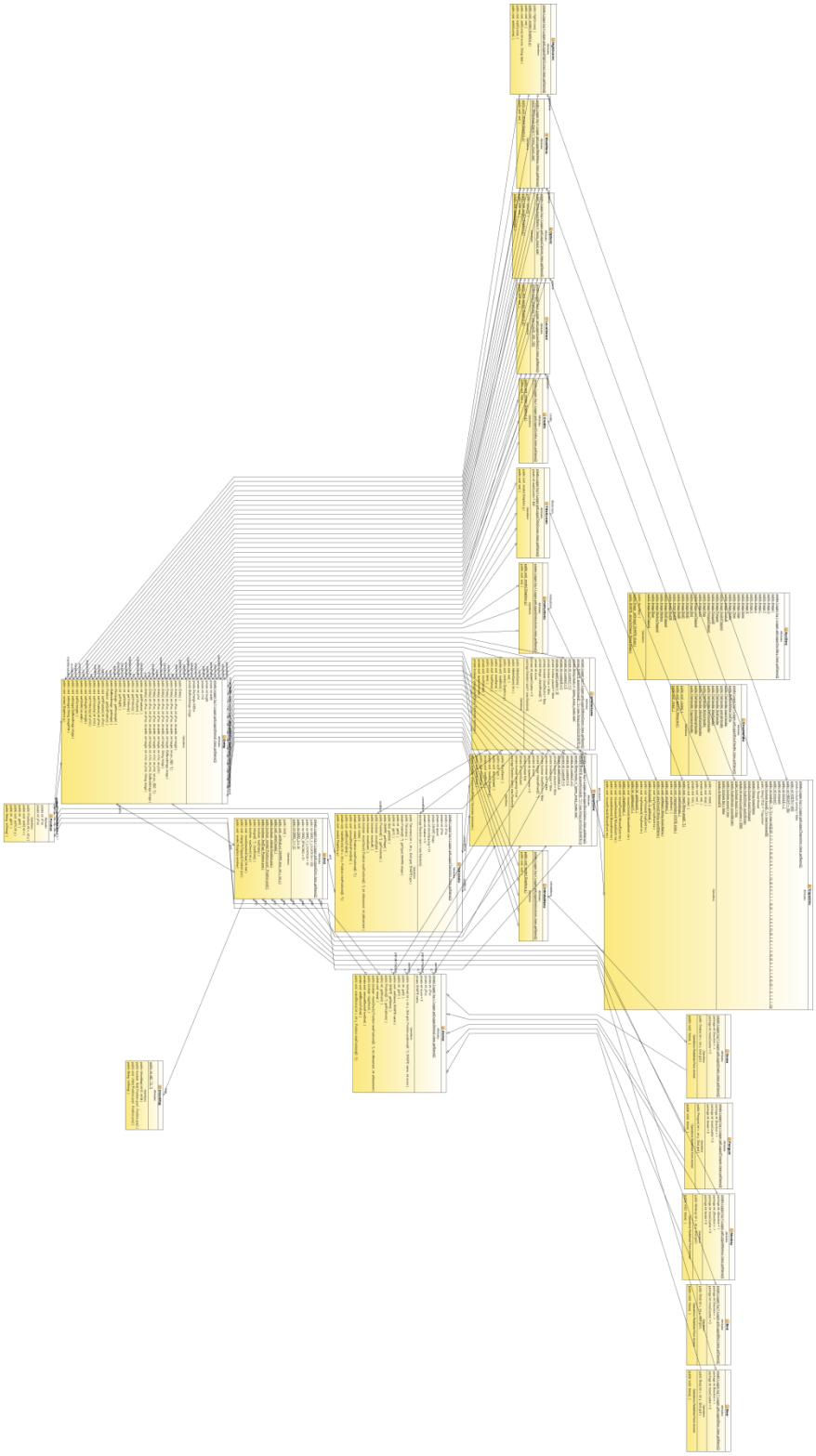
Life Cycle


Requirement Analysis
Design
Development
Implementation
Testing
Maintenance
Publishing

Data Flow


Story
Endless
Options
Credits
Tutorial
Exit
Main Menu
Pause Menu
Game
New Game
Load Game
High-Scores
Save Data
Continue
Reset
Options Menu
Music Toggle
Sound Toggle
FPS Counter
Options Data

UML



Part III -- Schedule Management

Timeline

Due Date	Task	Responsible Party	Completion Date
09/12	Project Description	Jack Baumann	09/12
90/16	Register with BPA	All	09/16
09/18	Portfolio Cover Sheet	Patrick Edelen	09/18
09/23	Tentative Timeline	Jack Baumann	09/23
09/26	Gantt Chart	All	09/26
10/01	Team and Individual Paperwork	All	10/01
10/09	Storyboard	Alexis Lopez	10/09
10/16	Function	Jack Baumann	10/16
10/21	Error Logging Form	Micheal Peterson	10/21
10/21	UML Class Diagram	Micheal Peterson	10/21
10/22	Main Character Sprites	Alexis Lopez	10/22
10/22	Button Sounds Completed and Implemented	Alexis Lopez, Micheal Peterson	10/22
10/23	Milestone 1 Complete	All	10/23
10/24	Opening Menu Buttons Implemented	Micheal Peterson	10/24
10/27	Game Testing Form	Micheal Peterson	10/27
10/28	Software Development Lifecycle	Jack Baumann	10/28
10/29	Menu Music Completed and Implemented	Alexis Lopez, Micheal Peterson	10/29
10/31	Credits Complete	Micheal Peterson	10/31
11/4	Sprites of Main Animals Complete	Alexis Lopez	11/4
11/5	Game Milestone 2 Complete	All	11/4
11/5	Sprite Movement Working	Micheal Peterson	11/5
11/6	Upload Game Function and Timeline	Jack Baumann	11/5
11/11	Game Milestone 3 Complete	All	11/6
11/12	Data Flow Diagram	Jack Baumann	11/3
11/18	All Sprites Complete	Alexis Lopez	11/18
11/20	Game Milestone 4 Complete	All	11/19
12/09	Tentative Presentation Laid Out	Patrick Edelen	12/04
12/16	Upload all Documentation	Jack Baumann	12/16
01/07	Game Milestone 5 Complete	All	01/02
01/07	Game Backgrounds Complete	Alexis Lopez	01/05
01/09	readme.txt	Micheal Peterson	01/11
01/13	All Game Features Finalized	Micheal Peterson	01/17
01/27	All Game Testing Finalized	Micheal Peterson	01/27

01/27	All Game Documentation Finalized	Jack Baumann	01/25
01/29	1st Run-Through of Presentation	Patrick Edelen	01/30
02/03	2nd Run-Through of Presentation	Patrick Edelen	02/05
02/05	Final Upload	Jack Baumann	02/20
02/20	3rd Run-Through of Presentation with Audience	Patrick Edelen	02/15
02/26	4th Run-Through of Presentation with Audience	Patrick Edelen	02/19
03/03	Final Presentation Run-Through	Patrick Edelen	
03/12	Presentation	Patrick Edelen	

Project Milestones

Milestone 1 (10.23.14)

Art: main sprites and menu background completed

Music: title screen music complete

Code: title screen and main menu music and buttons implemented

Documentation: description, function, and error logging complete; data flow diagram and UML iteration 1 complete

Milestone II (11.5.14)

Art: backgrounds for main levels complete, menu UI started

Music: game sounds complete (collision, buttons, etc.)

Code: basic Tetris mechanic and sub-menus implemented

Documentation: lifecycle complete, technical requirements laid out, code commenting started

Milestone III (11.11.14)

Art: menu UI completed, sprites finalized

Music: UI sounds added, ambient game music started

Code: UI implemented (pause menus and HUD)

Documentation: code commenting continued, Javadoc generated

Milestone IV (11.20.14)

Art: level selection artwork completed, level UI started

Music: ambient music finalized

Code: level layout and selection implemented

Documentation: UML and dataflow updated, continue commenting

Milestone V (1.5.15)

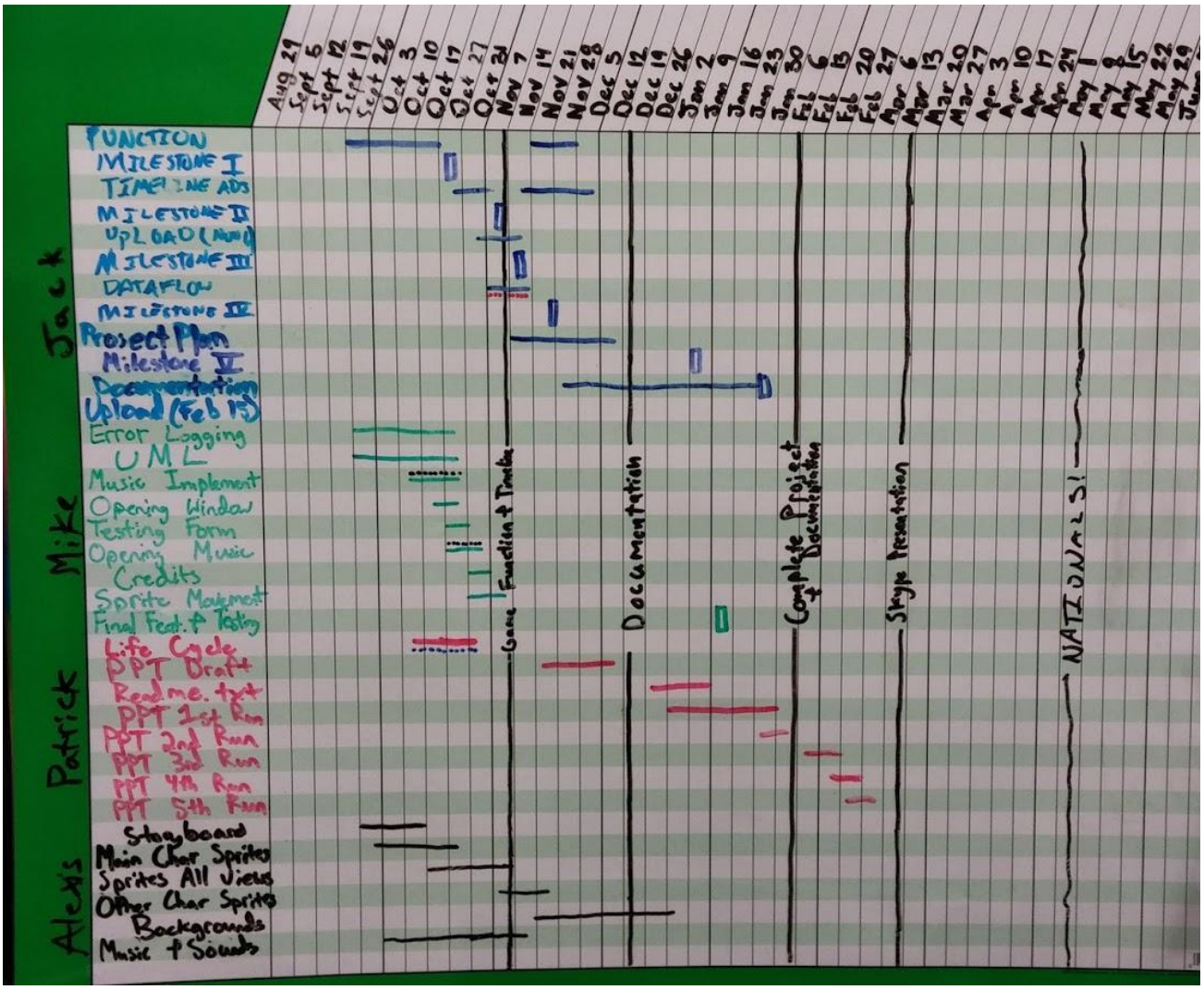
Art: sprites polished and level UI finished

Music: all music complete and polished

Code: Tetris mechanic finalized, win/lose state finalized; fully playable game

Documentation: update UML, Javadoc, Data Flow Diagram, and any other documentation

Gantt Chart


Aug 29
Sept 5
Sept 12
Sept 19
Sept 26
Oct 3
Oct 10
Oct 17
Oct 24
Oct 31
Nov 7
Nov 14
Nov 21
Nov 28
Dec 5
Dec 12
Dec 19
Dec 26
Jan 2
Jan 9
Jan 16
Jan 23
Jan 30
Feb 6
Feb 13
Feb 20
Feb 27
Mar 6
Mar 13
Mar 20
Mar 27
Apr 3
Apr 10
Apr 17
Apr 24
May 1
May 8
May 15
May 22
May 29
Jack
FUNCTION
MILESTONE I
TIMELINE ADS
MILESTONE II
UPLOAD (Nov)
MILESTONE III
DATAFLOW
MILESTONE IV
Project Plan
Milestone V
Documentation
Upload (Feb 15)
Mike
Error Logging
UML
Music Implement
Opening Window
Testing Form
Opening Music
Credits
Sprite Mgmt
Final Feat. & Testing
Patrick
Life Cycle
PPT Draft
Readme.txt
PPT 1st Run
PPT 2nd Run
PPT 3rd Run
PPT 4th Run
PPT 5th Run
Alexis
Storyboard
Main Char Sprites
Sprites All Views
Other Char Sprites
Backgrounds
Music & Sounds
Game Function & Tests
Documentation
Complete Project & Documentation
Skype Presentation
NATIONALS!

Part IV -- Quality Management

Game Testing Feedback Form

Before playing Trapomino, please fill out the first section. Next, play the game and fill out the following section with any suggestions or problems you encountered. Finally, after playing the game, please evaluate your opinion on Trapomino and how Team Trapomino can improve the game.

Section 1 - Before Playtest:

Trapomino is a Tetris based game where the player takes on the role of a zoo keeper trying to recapture escaped animals. By rotating and placing tetromino blocks on a grid, the player must catch animals by creating "cages" with the shapes. The player must capture a variety of animals, each with different abilities that challenge the player in new ways. The player will advance through stages of increasing difficulty and new sets of animals until he reclaims all of the escaped animals.

Playtester Information:

Please supply Team Trapomino with some basic information about yourself.

Name: _____ Age: _____ Gender: _____

Approximately how many hours a week do you spend playing video games?

_____

Based on the description above, please circle your interest in this game on a scale from 1 (Not Interested) to 10 (Highly Interested):

1 2 3 4 5 6 7 8 9 10

Section 2 - During Playtest:

Please describe any errors or problems you encountered while playing Trapomino:

_____
_____
_____
_____
_____
_____
_____
_____
_____

Please describe any difficulties or frustrations you encountered while playing Trapomino:

Section 3 - After Playtest:

Please describe any visual or audio related suggestions that would improve Trapomino:

Please describe any game mechanics suggestions you would like to see in Trapomino:

Please circle the quality that corresponds to each element in Trapomino on a scale from 1 (Low Quality) to 10 (High Quality):

Game Experience:	1	2	3	4	5	6	7	8	9	10
Intuitiveness:	1	2	3	4	5	6	7	8	9	10
Graphics:	1	2	3	4	5	6	7	8	9	10
Audio:	1	2	3	4	5	6	7	8	9	10
Overall:	1	2	3	4	5	6	7	8	9	10