DATE HERE

Sunday, August 27, 2017 10:00 PM

Objective: Students will be able to

Bellwork:

Response:

Today's Activity:

Exercise 1.1.1 - Anticipatory Questions

Sunday, August 27, 2017 11:00 PM

1. List the following items as a game or not a game:
   TV Show
   Book
   Toys
   UNO
   Rubik's Cube
   Crossword Puzzle
   Call of Duty MW3
   Sudoku
   Monopoly
   50 Meter Dash
   Football

Game	Not a Game

2. Why do you play games?

3. What is your favorite game genre and why?

4. If you were alone on a deserted island what one game would you bring to play forever and why? (yes you have electricity)

Lesson 1.1.1 Notes - What is a game?

Sunday, August 27, 2017 11:00 PM

Play and game

- **Play** is the act of _____ for _____ rather than a serious or practical purpose
- Play and games have a surprisingly complex relationship
- Play is both a larger and a smaller term than "game" depending on the way you frame it
  - Games are a subset of play
    - Most forms of play are looser and less organized than games, in this sense games are a subset of play
  - Play is a component of games
    - The experience of play is but one of many ways of looking at and understanding games

Definition 1

- David Parlett (game historian)
  - A formal game has a _____ based on _____
    - Ends – a “formal game” is a contest with an endpoint rules and materials by which one wins the contest

Definition 2

- Clark C Abt (from his book)
  - A game is an _____ among two or more independent _____ seeking to achieve their _____ in some _____
    - Activity –
    - Decision-makers –
    - Objectives –
    - Limiting context –

Definition 3

- Bernard Suits (Grasshopper: Games, Life and Utopia
  - Playing a game is the _____ effort to overcome _____.
    - Voluntary –
    - Unnecessary obstacles –

Definition 4

- Greg Costikyan(game designer)
  - A game is a _____ in which participants(players), make decisions in order to manage resources through game tokens in the _____
    - Art –
    - Players –
    - Goal –

Our Definition

- Ian Schrieber
  -
    - Play activity –
    - Rules –
    - Conflict –

  - Adopted by the IGDA Education SIG

So what are games?

- Games are an _____
- Games have _____
- Games have _____
- Games involve _____
- Game are _____, they are _____, and they are _____
- Games involve _____ on the part of the player
- Game are _____ – you choose to play
- Games have _____
- Games are a _____ or _____
- Games are _____

Exercise 1.2.1 - Brainstorm Activity

Sunday, August 27, 2017 11:24 PM

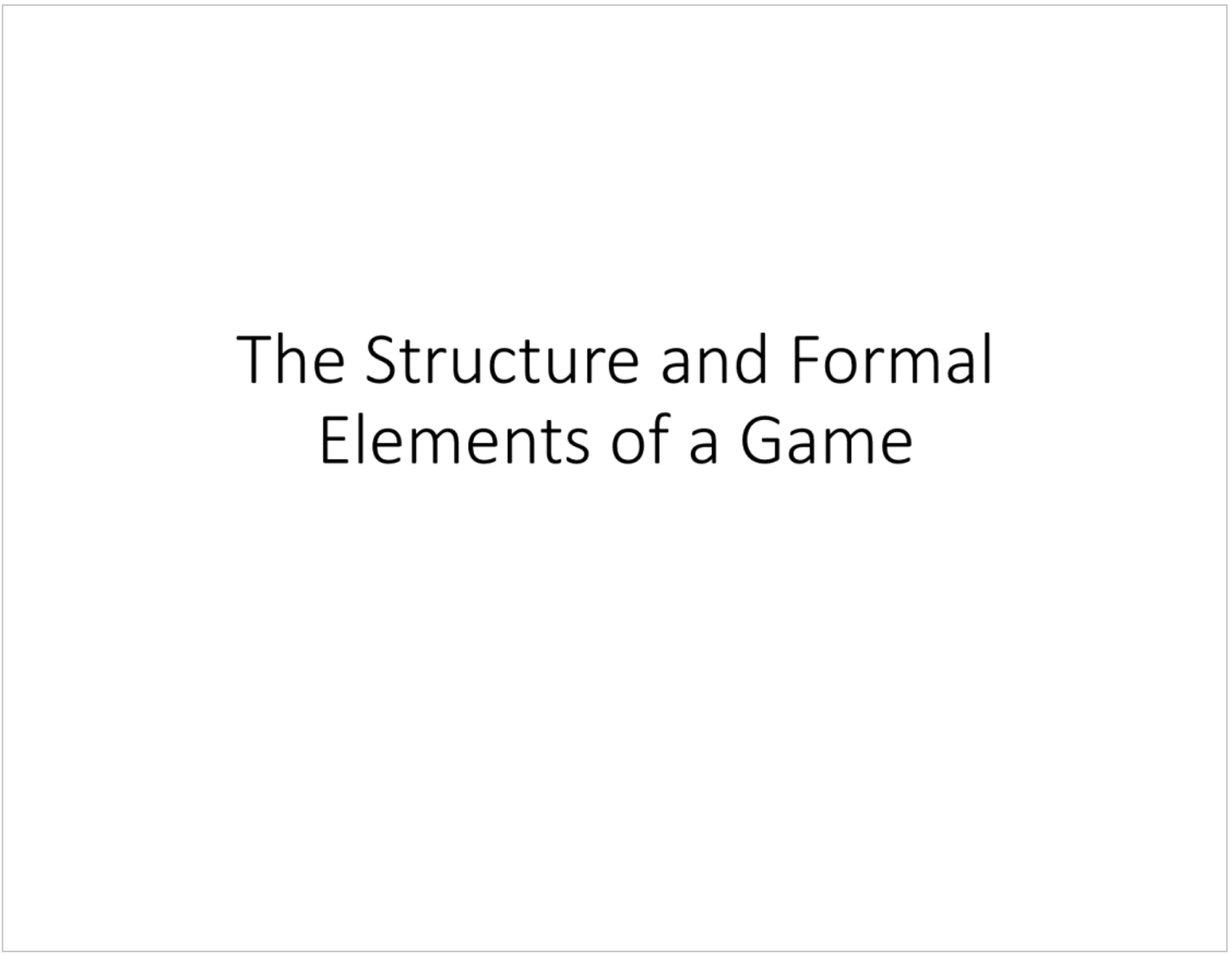
Using the topic below for this project Take a deck of blank index cards and on each card write down one word or idea that comes to mind based off this given topic. Don't write a paragraph or sentence, just 1-3 words involving an idea or a game mechanic that could possibly be used.

Your topic: [select a topic from the bank below and erase the bank or give your own]

Topic Bank: Space, Mining/Minerals, Planes, Travel, Racing, Medieval, Water, Ships, Fighting, Bugs, Animals,

Lesson 1.2.1 Notes - Formal Elements of Games

Sunday, August 27, 2017 11:24 PM



Players

- A **player**

- Players must have a **Lusory Attitude**
  - **Lusory Attitude**

Objectives(Goals)

- The **objective**

- Even if you have achieved the objectives you may not always win (games with other players)

Procedures(Dynamics) and Rules(Mechanics)

- **Procedures**:
- **Rules:**
- Authority of the rules comes from the agreement by the players submitting themselves to the experience of the game
- Most rules are written, some are assumed

Core Mechanics

- The **Core Mechanics**
  - This is what your game is all about
- Core mechanic of Halo is: shoot at something, take cover, throw grenade at it, let grenade go off and then shoot at it till it is dead

Aesthetics

•

- This is as opposed – “This is fun” “This is engaging
- Need to ask Why is it fun
- What is the aesthetic you going for
  - Competition
  - Poetic

Resources

- Resources
  - Of course this means explicit resources in RPG
    - Wood, gold, stone etc (Age of the Empires)
  - Information
  - The cards in your hand during Go Fish
  - The ammo you have for your M16 in COD
- Key aspects of many games

Conflict

- Provides

- The players have to

Magic Circle

- The **Magic Circle** of a game

- For videogames this is easily recognizable
  - Computer/TV/Console/Handheld are the physical space, you can't play videogames without them
  - Players are

- Board games have less physical and more artificial boundaries(in a sense) that keep the player within it
  - Players can choose

Outcome

- This differs from objectives of a game in that

- For all the rules and constraints that games have their outcome is _____.
- Aspect of uncertainty in the outcome is what makes the game fun!!
  - If you win every time no one will want to play you

Game as Systems

- All games can be understood as **systems**
- A **system** is a

- As **systems**, games provide _____ which can be:
  - spaces
  - objects
  - behaviors that players explore
  - manipulate and in habit

Reflection 1.2.1 - Formal elements of a game you played

Sunday, August 27, 2017 11:25 PM

Take a game you played recently or a game you really like and list out the following formal elements of the game:

1. Rules

2. Procedures

3. Objectives

4. Conflicts

Exercise 1.3.1 - Tic Tac Toe Mod

Sunday, August 27, 2017 11:45 PM

Tic-tac-toe is a paper-and-pencil game for two players, X and O, who take turns marking the spaces in a 3×3 grid. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row wins the game.

In this class your goal is to modify the rules and procedures of Tic Tac Toe making it able to play with three players. You may have to modify the board or another aspect to make it work. Do not change it so much that it takes away the games identity.

Work in groups, get the rules and/or procedures changed and take turns playing each others mod performing a mini playtest session.

Lesson 3.1 Notes - Iterative Design and Playtesting

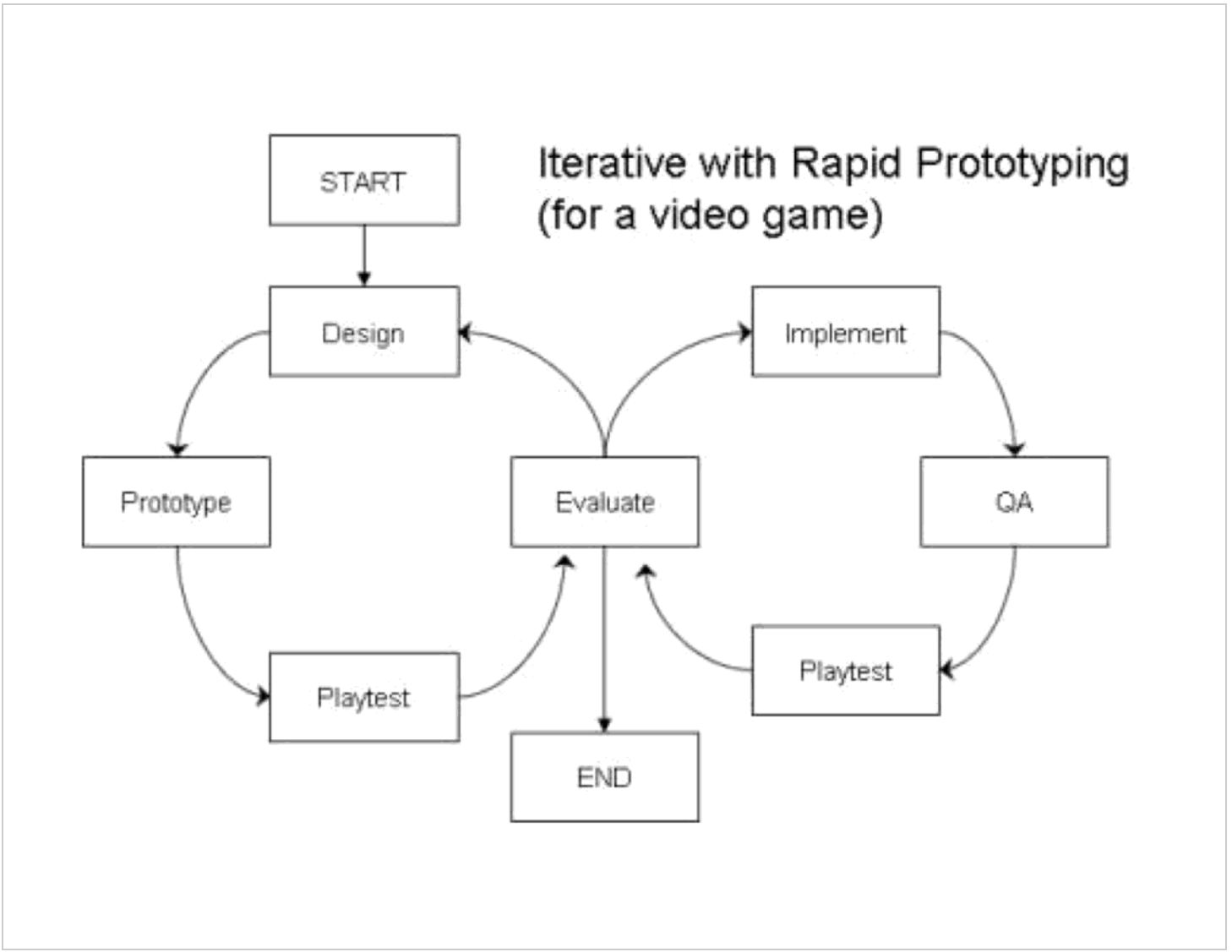
Monday, August 28, 2017 12:41 AM

Iterative

- The act of _____ over and over
- Make different iterations of the _____

Iterative Game Design Stages

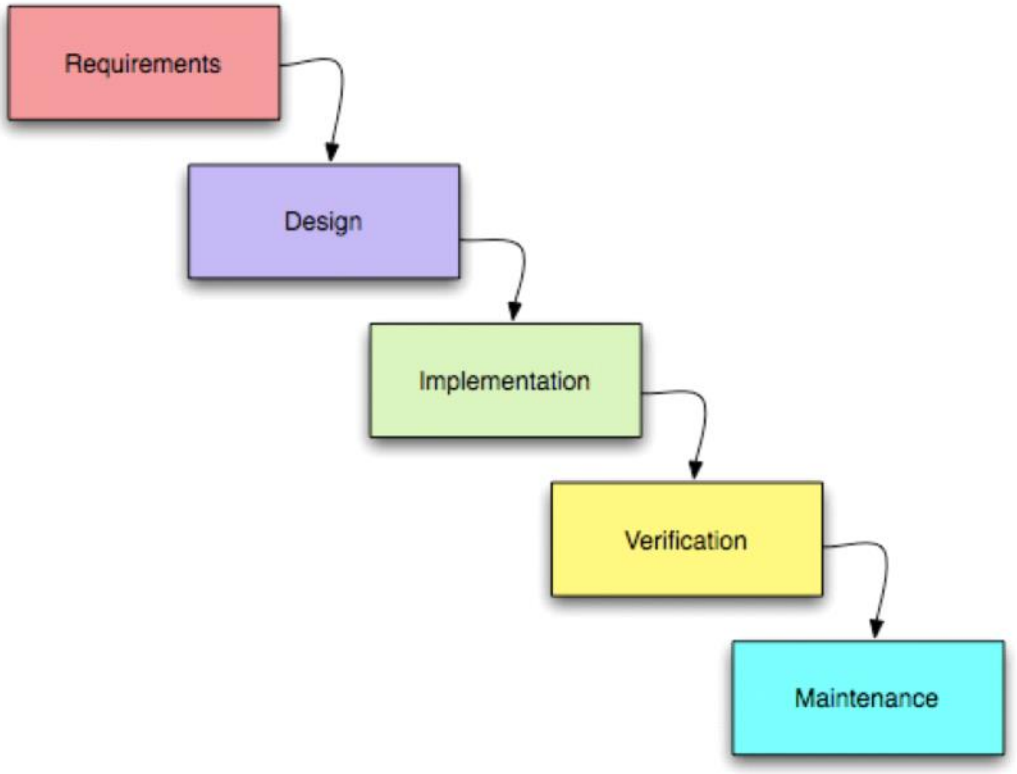
-
-
-
-
-


Iterative with Rapid Prototyping
(for a video game)
START
Design
Prototype
Playtest
Evaluate
END
Implement
QA
Playtest

Stages of Design

- Design
  - Using the formal elements you _____ for the game
- Prototyping
  - lets you _____ and _____ while still at the beginning stages of development
- Playtesting
  - Get a _____ and have them play your game to _____
- Evaluate
  - Figure out _____ during the playtest

Waterfall Design – BAD!!



Playtesting

- Playtesting is something that the designer _____ to gain an insight into whether or not the game is achieving your player experience goals
- How big is playtesting?
  - For Halo 3, Microsoft conducted over 3000 hours of playtesting with more than 600 people

Types of Playtest

- Self-testing
  - In the beginning stage you _____ to get basic gameplay bugs fixed
- People you know
  - Once you have gameplay bugs fixed you can get _____ to come test your game.
  - "_____"
  - These players are a little nicer to you and won't "hate" on your game
- People you don't know
  - Outsiders have _____ by telling you if your game sucks
  - Gives more _____
  - These people may not be "gamers" and you can get a _____

Playtest Procedures

1. Introduction– _____
   - What the game is and about
2. Play Session – _____
   - Takes notes on EVERYTHING, good and bad
   - Make the testers think out loud so you know their strategies
   - If play goes longer than 20 minutes halt the play and move on

Playtest Procedures (continued)

3. Discussion – _____(depending on development phase, in the beginning these will be quicker if you don't have a full game)

- Ask the playtesters questions about the game
  - What did you like/what made sense?
  - What did you dislike/what didn't make sense?
  - Would you play this game again?
  - What suggestions do you have to make it better?
    - This will only be in our class since we are all game designers
- _____, it is there to improve you not put you down
- Throw your ego out the window, your _____ of what works and doesn't, _____
- Lastly thank everyone for playing the game

Your role during the playtest as a designer

- DO NOT tell them how the game is "suppose" to play
  - You don't come in the box when you publish!
- Let them play the game with no or minimal explanation
- At this point when they start to play you are their to observe, analyze, and take note of what the players say and do while playing
  - Look at their strategies, how they go about wanting to win, etc. – was that what you envisioned?

Project Outline

Sunday, August 27, 2017 11:46 PM

Project Supplies: (This is your first prototype kit!)
UNO Deck
NOTHING ELSE!! No dice, no paper for stat tracking

Group 1	Group 2	Group 3
[Genre]	[Genre]	[Genre]
[Group Members]	[Group Members]	[Group Members]

With this project you will be taking a deck of UNO cards and ignoring all the rules of the game, make your own based on the genre that is assigned. You will work in teams bouncing off ideas, coming up with a concept for the game, and playtesting it refining it down to a fun playable game

You will need to define the rules and objectives of the game just like a regular card/board game. Get creative with the rules. Anything goes as long as it keeps some form of the game genre you were assigned. Everyone should have input in the design, no one should be totally ignored. I want to see teamwork and at least something from each team member within the games. You should be able to come up with a core of 5 or 6 rules that define a new game that fits the genre. Do not go overboard and have more then 15. If time permits, play it within your groups and see if everything works. Questions to keep in mind: Is it fun? Does it make sense? Does everything fit? And if not, rework it.

Tips to get you started:

- **Research your assigned genre.**
  - What are the three defining characteristics?
  - What do the interfaces usually look like?
  - What is the core game play?
- **Ask some (more) questions:**
  - How can we recreate the standard interface using just UNO cards?
  - What does my genre really mean?
  - What are the usual actions and events that happen in my game? (Make a list of these)

Possible genres include:

- Role-Playing Game
- Turn-based Strategy
- Real-time Strategy
- Brawling/Fighting
- Action-Adventure
- Shooter
- Adventure
- Racing
- Tower Defense

Reflection - Formal Elements

Monday, September 4, 2017 7:45 PM

After you have done your first playtest you now should be able to list out what the following formal elements of your game are.

Objectives of your game:

Procedures:

Rules:

Core Mechanics:

Resources:

Game Rules Writing

Sunday, August 27, 2017 11:47 PM

You are to create a set of formal rules for your UNO mod game. These rules need to be simple enough that anyone who hasn't ever played a game before can figure out how to play our game. Students from other classes will be invited to this class to do a real live playtest of your game.

Look at some of the rules from games that you have played in class. Also look at the classics like monopoly or the game of life. Even though these games are basic the way they have their rules set up work (evidently from you as a player being able to play the game).

Your rule sheets should have the following sections to play your game:

- **Objective: [how to win the game]**
- **Set Up: [any certain way to set up the decks or how many cards each player gets]**
- **How To Play/On Your Turn: [these are your rules and procedures]**
- **[Specific Section Name]: (this could be to describe certain cards or spaces on a board. Like in the game of life certain spaces require a certain one time action)**

Also with the rules include the creation of anything extra like a "mat" (a piece of paper with markings on it) to help notify the color of a deck, etc. Turn these in by the next class day so that they can be used in the Student Playtest.

Spelling and Grammar does count everything needs to make sense, keep it simple stupid. (KISS).

Reflection - UNO Mod

Sunday, August 27, 2017 11:47 PM

Introduction to the project (goals, vision, audience, team dynamic):

What went right:

1.

2.

3.

What went wrong:

1.

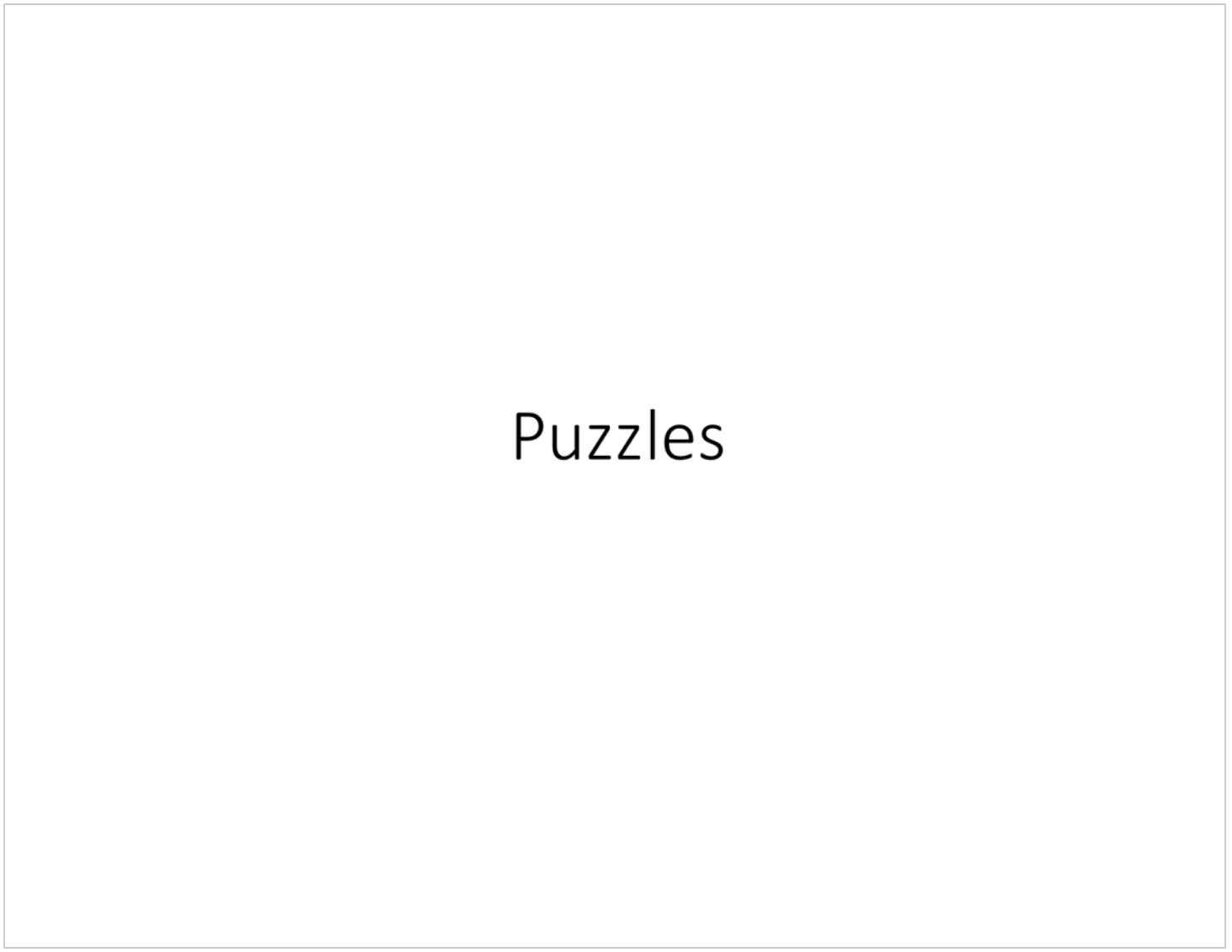
2.

3.

Conclusion (summing up lessons learned, etc.):

Notes 2.1.1 - Puzzles

Wednesday, October 4, 2017 7:42 AM



What is a puzzle?

- Puzzle –

- Puzzles are often referred to as “mini-games” –

Basic Characteristics

- **Affordance:**
- **Identifiable patterns**:
- **Ease of use:**
- **Reward player skill:**

Making Puzzles Fun

- You should only use puzzles in games if it _____ and makes it _____
- In general, puzzles are a _____, preventing them from reaching a goat, the fun comes from the feeling of _____

Puzzle Types

- **Riddles:**
- **Lateral Thinking**:
- **Spatial Reasoning**:
- **Pattern Recognition:**
- **Logic**:
- **Exploration:**
- **Item Use:**

Design tips

- Some ideas to make puzzles more *fun*

Exercise 2.1.1 - Da Bomb!

Tuesday, October 10, 2017 11:27 AM

As with games, sometimes when designing a puzzle you're given a theme and you must create the mechanics to fit the theme.

In this case, you're designing a game based on the old TV show MacGyver, and part of the storyline in the game involves the main character defusing a bomb. Rather than making it a non-interactive cutscene, you've chosen to make it into a timed puzzle, where taking too long to solve the puzzle or solving it incorrectly results in the game being over. If that doesn't provide some tension to the player, nothing will.

Consider the different kinds of puzzles mentioned in this chapter and choose at least three puzzle types that would be appropriate to the theme. Then choose your favorite type and create a working prototype of the puzzle.

Deliverables:

- A sketch of each puzzle
- A paragraph to accompany each puzzle explaining it

Exercise 2.1.2 - Puzzles to a Maz

Tuesday, October 10, 2017 11:27 AM

Consider the maze to be a type of exploration puzzle. A basic maze with arbitrary paths is not particularly compelling to a player who has seen many mazes before. Many older RPGs required players to make a map of a series of mazes as they played. Today, most gamers would consider this “busywork” and prefer that the game provided an automatic mapping function. For this challenge, though, let’s give the player a reason to make his own map.

Brainstorm as many mechanics as you can think of that can be added to a simple maze, which makes the process of mapping a puzzle in and of itself. Come up with at least three ideas.

One example (which you’re not allowed to use) is the maze from the classic Atari 2600 game Adventure. In this game, the maze “wraps around” so that moving to the left may cause you to reappear on the right side of the maze. You may pass near the same point several times when you’re actually in a completely different section of the maze. In this way, mapping and navigating are made more difficult, and become quite a puzzle, even though the maze itself is not very large.

Deliverables:

- A short sentence up to a paragraph describing each mechanic that you can think of
- A sample hand-drawn maze illustrating the mechanics described

Notes 2.2.1 - Chance

Tuesday, October 10, 2017 11:33 AM

Chance

- Chance is
- Effects of Chance
  - Delaying or Preventing Solvability
  - Making Play Competitive
  - Increase Variety
  - Creating Dramatic Moments
  - Enhancing Decision Making

Delaying or Preventing Solvability

- Once a player _____, the game loses part of what makes it a game – _____
  - This is why Tic-Tac-Toe fails to remain compelling for long
- Solvable games are _____
- Games must have a _____ to continue to _____
- Adding a random element will prevent someone from _____, because making the _____ may lead to a _____

Making Play Competitive

- A sufficiently _____ will always beat a _____
- Can't always count on _____ being available at the the same time and same place for a game
- If you always have a good vs bad player, the bad player will eventually _____
- Random elements that _____ (or offer an advantage) keep these _____
  - There is always a chance for victory
  - A player can blame his/her own bad luck

Increase Variety

- Games with _____always start exactly the same and _____
- When random elements are introduced, players must cope with a _____
- Adding random elements in the right ways can _____, thus increasing _____

Creating Dramatic Moments

- When a player carefully crafts a strategy and then has to _____ (or other random object) to see if the _____
- _____ created by chance increases in direct proportion to how much one has _____

Enhancing Decision Making

- Essence of most games is the _____
- With pure strategy games, players have all the information and know the _____.
- When random elements exist in a game there is _____
  - some moves could have high chance of failure but bigger pay offs
  - others may be small moves with little gain
- Players must _____, their relative risks and benefits
- Decisions become more _____

Mechanics of Chance

- Dice
  - Single die creates _____
  - Rolling more than one die _____
    - Rolling two 6d you have a greater chance of rolling 7 then any other number
- Cards – Tiles drawn from bag
  - Chance of getting card depends on _____
  - Revealing cards affects _____
- Pseudo Random Number
  - Number that is _____ but close enough for the purpose of most games (on computers)
- Hidden Information
  - Information that is _____
- Others
  - Spinners – add probability by modifying the _____
  - Dreidels

Randomness

- All Randomness is NOT created equal
  - As more and more games are played games shift from random to skill (think of Poker)
  - _____ where the nature of the random elements are known and can be planned for by the players.
- Completely Random Games
  - _____
    - Young children have not developed the _____
    - These games tend to have a level building tension that is _____
  - _____
    - Without money involved _____ quickly lose their appeal
    - Most games are all random but they offer "choices" that _____

Exercise 2.2.1 - Luck-Tac-Toe

Tuesday, October 10, 2017 11:26 AM

Lets start with a simple game, Tic-Tac-Toe. The original game is purely a game of skill-you decide where you want to put the X or the O. Let's add some luck.

Modify this game by adding one or more chance-based mechanics. You may also add other skill-based mechanics provided that the game still resembles Tic-Tac-Toe at its core. At the same time, you must make the game good for adult players, a significant challenge, particularly since they are often jaded about the game. When's the last time you heard someone over the age of eight say, "Yeah! Let's play a game of Tic-Tac-Toe!"

Remember that rolling a 10-sided die to decide where you place your X or your O isn't likely to result in riveting gameplay. However, out there exists some combination of mechanics that can make this old standby compelling again.

By the end of this activity you need to have a set of the rules written out. Along with those rules you need to include a 1-2 paragraph explanation of whether you think the modifications helped improve or make the game worse. This is to be worked on in class. If by the end of class you do not complete this, you will need to take it home and complete it for the beginning of the next class period.

Deliverable:

The new game

Written rules modification for the new game

Analysis of whether your modification makes the original game better or worse and WHY

Notes 2.3.1 - Strategy Skill

Thursday, October 12, 2017 9:13 AM

Strategy

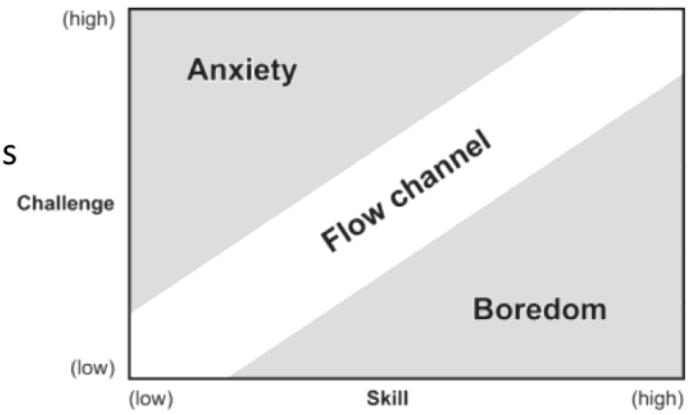
- very _____ for players, keeps us _____
- we play games and enjoy the process because we are seeking to _____
- The development of strategy isn't _____, it's something the _____

Role of Skill in Games

- Games are a _____
- The success of decisions whether a mental or a _____
- Decisions are used for _____
- When players are constantly making decisions they enter into a _____

Flow

- the idea that at the _____ motivation, the _____ its physical perception and enters a _____
- It is achieved when the individual's skills are perfectly in tune with the task or challenge at hand
- The key to flow is that
  - a beginner will have laser focus but not a high skill level
- By making it _____ designers are preparing the player for the game



Strategy Skill

- Strategy both _____ is used to layout how a player is going to play a game
- Strategy involve giving the _____
- Decision Types:
  - Obvious Decisions
  - Meaningless Decisions
  - Blind Decisions
  - Tradeoffs
  - Dilemmas
  - Risk vs Reward

Obvious Decisions

-
-
  - replenishing stamina automatically in RPG – not having to eat or rest
  - Auto reloading your gun in a FPS
-

Meaningless Decisions

-
-
-
-
  - can have decision that doesn't affect outcome but the player can perceive it does due to the game's response

Blind Decisions

-
-
-

Tradeoffs

-
-
-
-
  - Pursue the escaping evil wizard or save the princess from the dragon
  - Use a special weapon on the boss to defeat it quicker or save for later

Dilemmas

-
- Prisoner's dilemma
  - two or more players are separated for interrogation
  - if each player works with each other and doesn't blame the other they both get a minor penalty.
  - if they each blame each other then they both get the maximum penalty
  - if one blames another and the other don't blame any then the one player gets no penalty and the rest get the maximum penalty

Risk vs Reward Tradeoffs

- when player finds themselves with a situation that has multiple outcomes, _____
- Not saying “Which one of these things do I want” but rather, “Am I willing to risk it all for a potentially huge payoff… or death?”
-
  - safer move with smaller reward vs a risky move with a greater reward if it succeeds

Frequency of Decisions

- When creating games designers sometime

- Don’t have player
- Designer’s goal at the lowest level is to

- There is of course some times where you don’t need a constant decision
  - FPS games with elevators or lifts
  - Tunnels that lead up to boss battles

Mechanics of Skill – Tradeoff Mechanics

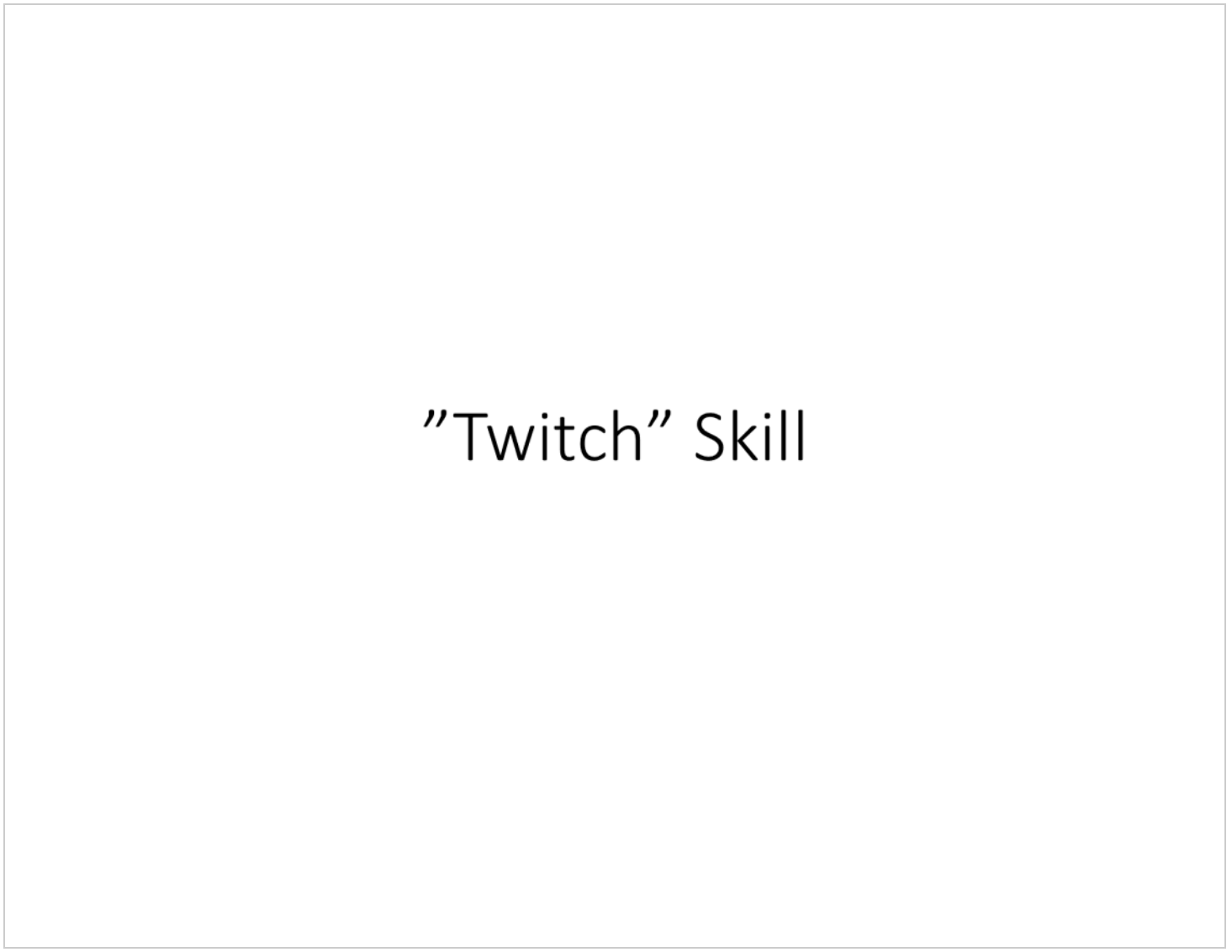
- **Tradeoff** –
- **Auction** –
- **Purchases** –
- **Limited-Use Special Abilities** –
- **Dynamic Limited-Use Special Abilities** –
- **Explicit Choices** –
- **Limited Actions** –
- **Trading and Negotiation** –

Accessing Strategy

- _____ a designer can gather a lot of information
- Level of strategy in your game should be _____
- Ask questions like
  - Do players care when other players are taking their turn?
    - higher degree of strategy player is less likely to leave the magic circle
  - Are players making long-term plans?
    - should invite players to make a strategy to be able to carry out over multiple turns
  - Are there multiple strategies for multiple games?
    - Players should have multiple strategies to follow because the game should provide variety (talked about this with chance)

Notes 2.4.1 - Twitch Skill

Friday, October 13, 2017 7:44 AM



Twitch

- This skill requires _____
- Games that use them at their core are called _____
- Many early _____ were almost entirely tests of this skill
- _____ fall into this category
- The _____ in a twitch environment are of a different nature
- Decisions are being made far _____

Challenging the player

- Players play games because they _____
- Players become better and better gradually as they _____
- Too many twitch skills at first the _____
- To easy to overcome, the _____
- (Remember ”flow” ?)

Tuning Twitch

- Difficulty of twitch is that they must be _____ at an optimal level BUT every player's _____
- Any challenge is going to be too hard or to easy for _____
- Difficulty Levels
  -
- Dynamic Difficulty Adjustment
  -
- Difficulty Curves
  -
- Playtesting
  -

Twitch Mechanics

- Pure Speed
  -
- Timing
  -
- Precision
  -
- Avoidance
  -
- Time Pressure
  -

Game Analysis - Formal and Dramatic Elements

Tuesday, October 17, 2017 9:52 PM

Game Analysis – Formal and Dramatic Elements

Learning Objective: In this paper, you will explore the concepts covered from notes in this class. Specifically, you will be able to:

- Use the vocabulary defined in this class to break down the formal elements of a game
- Analyze how the chosen game uses dramatic elements to increase enjoyment during play

Lab Report Format (5%): You will complete an individual analysis report and will submit to me by the given deadline. Your report should be formatted as follows.

- 12 point Helvetica font, double spaced, 1 inch margin on all sides
- At the top left include your name, assignment name and period # all on separate lines

  ** FOR EXAMPLE **
  John Smith

  Game Analysis

  Period #

- Title of the game centered at the top
- The rest of the paper should be structured to clearly indicate your answers to the questions/exercises described in the instructions below.

Collaboration Policy: On this analysis, you will need to work individually. You may only discuss the answers with your fellow classmates at a high level and not include any specifics.

Plagiarism Policy: Purposefully using someone else's ideas or work without proper acknowledgment is plagiarism. This includes turning in borrowed or bought research papers as one's own. Turning in the same term paper (or substantially the same paper) for two courses without getting permission from one's instructor is plagiarism.

Work Cited: A work cited page with all reference material should be provided as needed. This should be a separate page with the “Work Cited” as the title of the page. You can use either MLA or APA style formatting. (Probably whatever you have learned in past English classes). Each entry should have a double space between each but be single spaced if the entry goes to multiple lines. To mark your sources within your answers you should use parentheses and either the author or article title after the sentence.

Game Analysis – Formal and Dramatic Elements

You are to choose a game that you are playing or have played in full. Preferably a game that you have completed and played a lot. This can be a game played in class (like the games we played this week) or a game on your own. You also have the choice of picking a board or digital game as well.

Your response to the questions below should be well thought out complete sentences. I do not want to see a bulleted list of items for each. You should have at least one paragraph (and most likely more) for each section. Remember a paragraph is 4 or more complete sentences.

Part 1 – Game Overview (15%): Give a brief description of the game. You should go into the story of the game and how play ends (Yes even board games or RPGs have a story, they're just not fully set). Do not focus on the formal elements (like the mechanics or procedures) of the game here.

Part 2 – Formal Elements (40%): Discuss the formal elements used in this game. This should include mechanics, dynamics and the aesthetics in the game. Use your notes taken in class to help remind you of the vocabulary we use when discussing games. You should also discuss how and why the game is in fact a game (again using your notebook for the definition of a game).

Part 3 – Dramatic Elements (40%): Discuss the dramatic elements used in this game. This should include puzzles, random/chance, strategy and twitch skill. Most games have some form of these elements. Twitch is most likely going to be the hardest element (depending on the game type) to define within your game. Use your notes taken in class to help remind you of the vocabulary and discussion we had in class.

Grading Rubric - Game Analysis - Formal and Dramatic Elements

Tuesday, October 17, 2017 9:55 PM

Lab Format (5%):

1	2	3	4
Missing four or more things from the format description. Work Cited page as needed	Missing two-three things from the format description. Work Cited page as needed	Missing one thing from the format description. Work Cited page as needed	Correct font, size, spacing, and heading. Paragraphs are of correct size and length. Work Cited page as needed

Part 1 – Game Overview (15%):

1	2	3	4
The game overview was given, but how the game starts, who is involved in the game is not clear. Most of the overview was taken from other sources and not original. Any work taken from someone else is cited correctly.	The game overview is somewhat clear. We know some of the main events in the game but not much detail is given. Some of the overview was taken from other sources and not original. Any work taken from someone else is cited correctly.	The game overview is mostly clear. We know the start middle and end I stated mostly clear. Most of the work is original to the student. Any work taken from someone is cited correctly.	A full brief overview of the game was given. The start, middle, and end is given in a clear consistent form. All work is original. Any extra material is cited correctly. (things like quotes from an article)

Part 2 – Formal Elements (40%):

1	2	3	4
Barely any content related to the elements is given. Elements are not fully used correctly or maybe the elements got mixed up. Any work taken from someone else is cited correctly.	Most all the formal elements are identified. Each element may not be clearly defined as it should. Any work taken from someone else is cited correctly.	Most all the formal elements are identified. Each element is mostly covered from the game. Multiple elements are described for each element. Any work taken from someone is cited correctly.	All the formal elements are covered in the analysis. All major formal elements from the game are defined. Any extra material is cited correctly. (things like quotes from an article)

Part 3 – Dynamic Elements (40%):

1	2	3	4
One of the dynamic elements is described from the game. The element is only vaguely talked about. Any work taken from someone else is cited correctly.	Two of the dynamic elements are described from the game. The elements are vaguely covered. Any work taken from someone else is cited correctly.	Three of the dynamic elements are described from the game. The elements are roughly discussed but not to the best of the ability. Any work taken from someone is cited correctly.	All the elements are covered and very clearly discussed. Any work taken from someone else is cited correctly.

Project Outline

Tuesday, October 31, 2017 8:25 AM

Below you'll find your group for this project

Group1	Group 2	Group 3	Group 4	Group 5	Group 6

In this project you will be given an article that I found off Wikipedia by clicking the random article button.

You will then read the article and come up with a game centered around it as your game theme. Using the prototype kit of index cards, paper, dice, markers, glue and more you will be building from nothing into a full fledged colorful board game by the end of the semester.

In the end you will be required to make a digital print of your game on the computer in any program you choose. Think of this as wanting to send you project files off to a publisher in which they will make and distribute your game. We will be going over some ways to make different pieces both physically and digitally on the computer throughout the class.

Your finished product should be a complete game in which you first design fun game mechanics, making a playable game, then moving on to designing the board and any game pieces.

Milestones

Milestone 1: November 10th	Milestone 2: December 1st	Milestone 3: December 8th	Milestone 4: December 22nd
Main concept and idea game flow complete.	Core mechanics, gameplay, and story complete. Should also have rules typed out for gameplay	Idea for game art makes sense with the theme, gameplay, and main idea behind the game.	Game is fully complete: rules, art, game pieces, etc. One set of game is built for class

Grading

## Milestone 1: Concept • Participation • Idea makes sense and is fun • Completed milestone on time	
## Milestone 2: Core mechanics and gameplay • Participation	

• Core mechanic and gameplay is complete, fun, and sellable • Participated in playtest, making changes for each iteration or getting great feedback • Completed milestone on time	
Milestone 3: Concept for design and layout of final product • Participation • Idea for game art makes sense with the theme, gameplay, and main idea behind the game • Completed milestone on time	
Milestone 4: Game fully complete and ready to "sell" • Participation • Game board, pieces, cards, etc. fully complete and one copy made for class. • All pieces in digital form and turned in • Completed milestone on time	

Things to work on for Milestone 1:

1. Mechanics, Procedures and Core Mechanic/Game Play
2. Game Bits
    a. Board
    b. Pieces
    c. Cards
    d. etc.
3. Playtest in your groups
4. Playtest in the class

Things to work on for Milestone 2:

1. Have done multiple iterations for your game
2. Playtested those iterations
3. Finalizing game pieces
4. Finalized rules from changes

Game Board Art

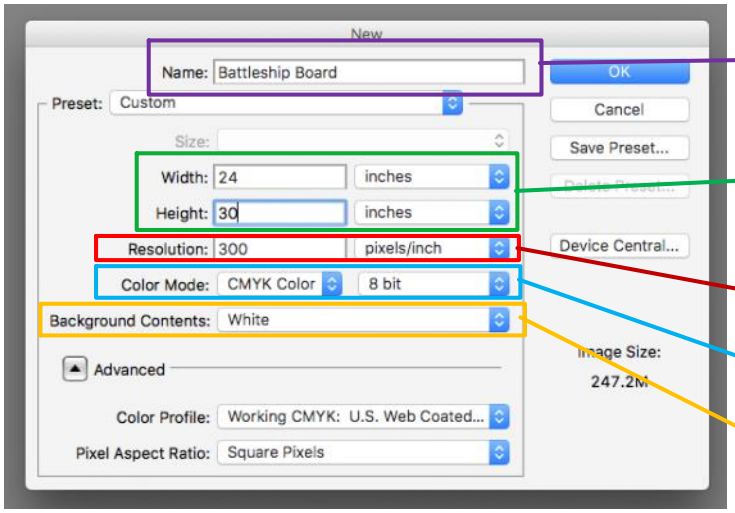
Tuesday, December 5, 2017 6:48 AM

[Follow this link for the video]

Use the following files in Photoshop to help you create the grid of your board game. You will need to set specific settings in the size of you Photoshop file depending on the size of your board.

hexagon-portrait-lett...

SquareGrid



Name the file according to your game

Set the width to the size needed, in inches. I wouldn't go over 30 inches for the width, and no longer then 36 inches.

The resolution should be set to 300 ppi, that is standard for printing

Color mode should be CMYK

Background color to white, not transparent

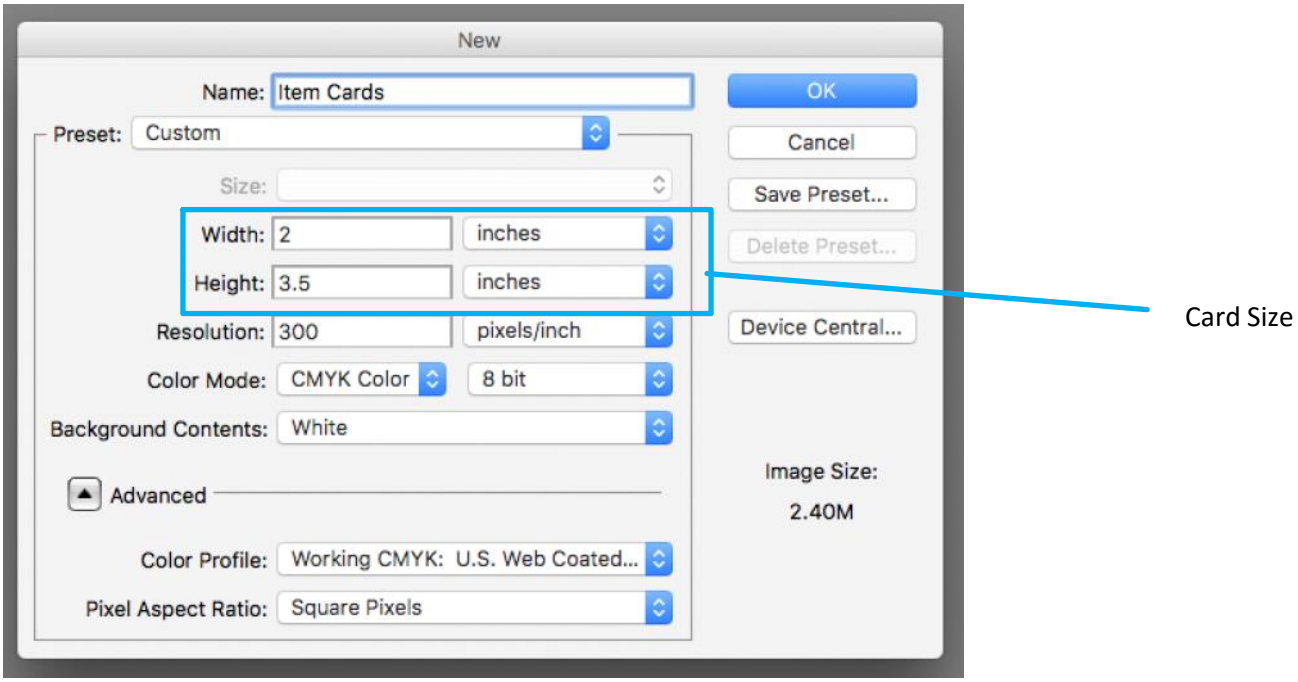
Cards/Paper bits Art

Tuesday, December 5, 2017 6:48 AM

[Follow this link for the video]

Use the following settings to make your own cards. Make each card individually, then combine them on a regular sheet of paper with guides.

A regular deck of playing cards is 2.5x3.5.
But you can use whatever size, like 1.5x3 which is about the size of the cards in Monopoly



3D Game Pieces

Tuesday, December 5, 2017 6:48 AM

Use Google Sketchup build game pieces that can be printed.

Twine Games

Monday, January 8, 2018 8:12 AM

Take the next couple of days and play through these twine games. Some of them may be blocked, if they are move on to the next.

Queers in Love at the End of the World by Anna Anthropy

Cat Petting Simulator by neongrey

Depression Quest by Zoe Quinn

Cry$stal Warrior Ke$ha by porpentine

Daymare #1: "Ritual" by Kitty Horrorshow

The Domovoi by Kevin Snow

The Domovoi

Spooky Mission by RS

SpookyMissionLite

Story Starter

Wednesday, January 17, 2018 9:45 AM

Video Tutorials

Thursday, January 25, 2018 10:05 AM

1. An Introducti...

2. Twine 2.0 Assig...

10. Twine 2.0 Using...

Project Outline

Monday, January 29, 2018 9:23 AM

In this project you will create a text based digital game.

From Wikipedia:
A **text game** or **text-based game** is a video game that uses text characters instead of bitmap or vector graphics. Text-based games were a popular form of interactive fiction in the 1980s.

This project will have you focus on the narrative side of storytelling. While there is, some programming involved (to create different experiences) creating an emotional response (the kind you get from a book or watching a movie/tv show) is the key aspect. It is your job to also use descriptive wording to help paint the picture. As you already experienced a Text game is all about the text and getting the image of a place in the players head through words.

Requirements:

Have 1 main story line
Have 2 branching stories/side quests
Have at least 3 people to talk/interact with
Have at least 8 items to interact with

Milestone #1 – Feb 2nd	Milestone #2 – Feb 9th	Milestone #3 – Feb 14th
• Main story line complete. • Not all interactions have to be finished but you should be able to play the story from start to finish. • Basic text in each passage, meaning you don't need detail and styling in every passage to be complete. • If you have more than one ending, this means you should have 1 ending complete (probably the most default ending)	• All detail and interaction complete for main story. • The required 2 side stories/quests should be complete in their basic form. • Not all detail/complete interactions are needed in them at this point. • If you have multiple endings this means that you should have 2 more endings in their basic form completed.	• Story complete. • Everything should be working with no dead ends. Your story should have full detail in the text with any and all styling. • You are turning in both the archive and built webpage of your story.

1. Making Image Sprites

Wednesday, February 21, 2018 5:41 PM

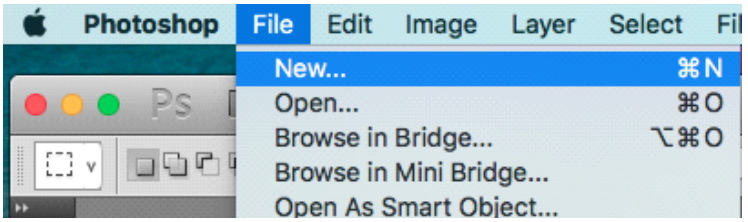
1. Creating Image Spr...

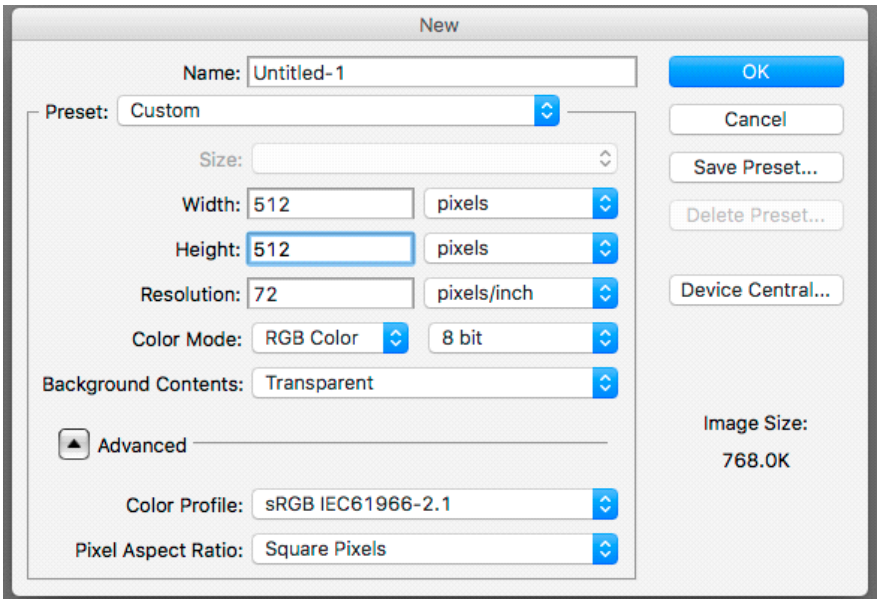
The first step in creating pong is we need images to represent the following:

- Walls
- Paddle
- Net
- Ball

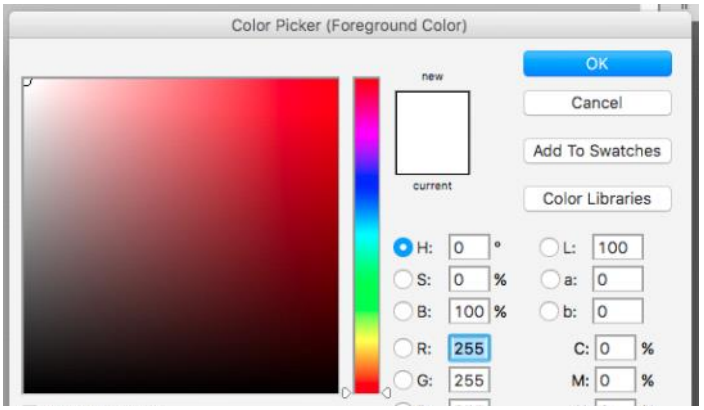
Complete the following steps to make our image sprites.

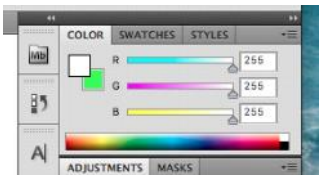
1. Create new document.
   a. Size: 512 x 512 pixels
   b. Resolution: 72 pixels/inch
   c. Background: Transparent



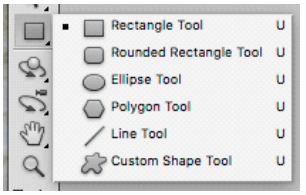


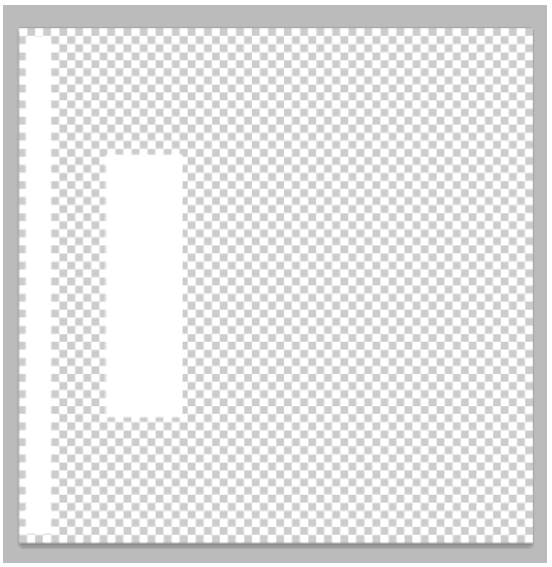
2. Change your main color in the color picker to white. In Unity we can change the colors of these sprites, so instead of deciding on colors now, we are going to use white.



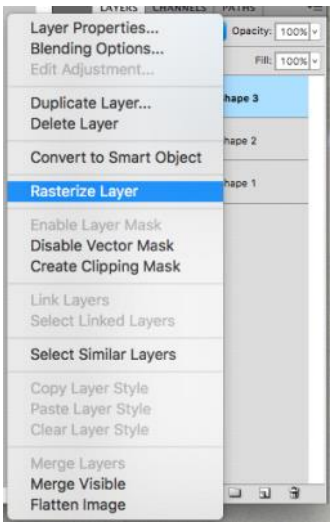


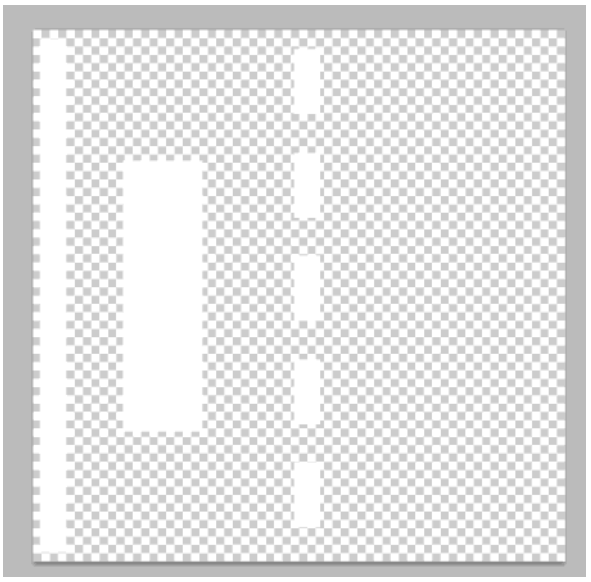
3. Select the rectangle drawing tool. Draw the following.
    a. Long skinny rectangle for a wall
    b. Short fatter rectangle for a paddle



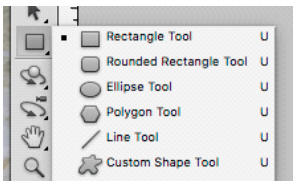


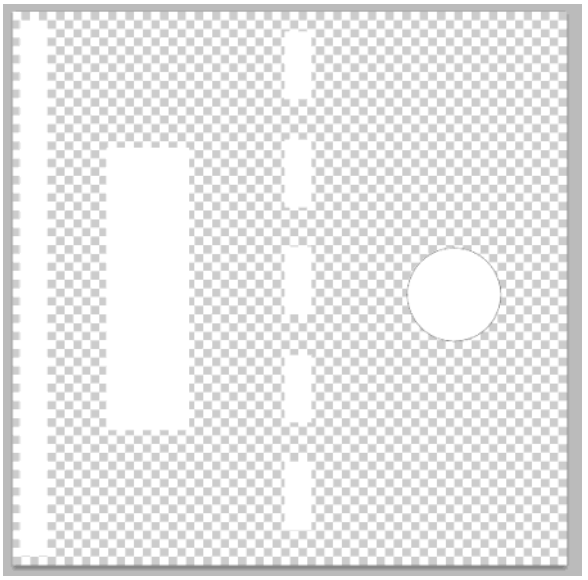
    c. Short skinny rectangles for the netting
        i. Draw 1 rectangle
        ii. Right click on the layer and "Rasterize"
        iii. Copy and paste that layer several times to have the netting

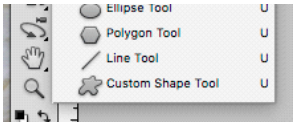




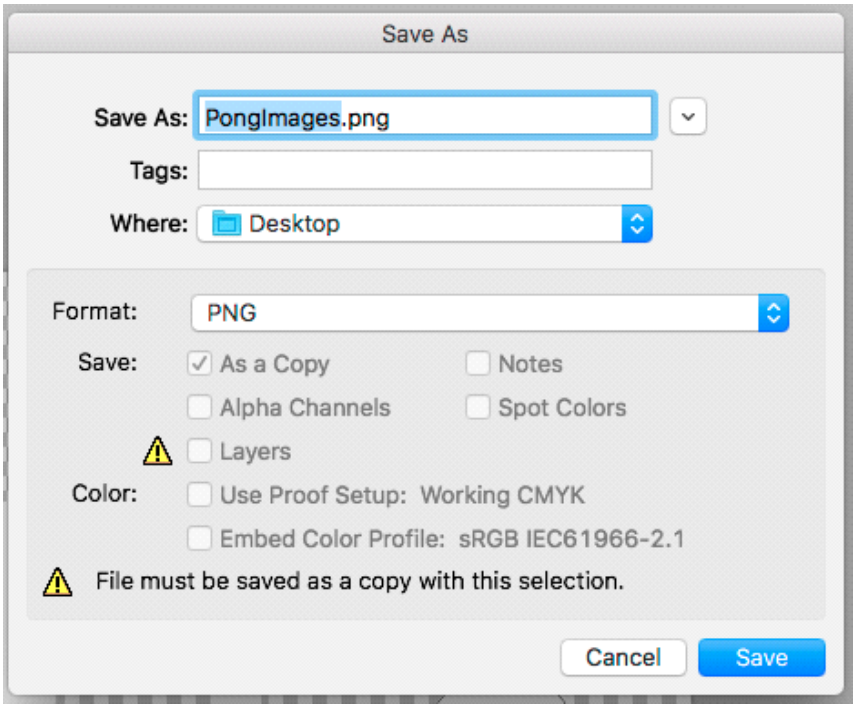
4. Select the ellipse drawing tool. Holding shift, draw a perfect circle.

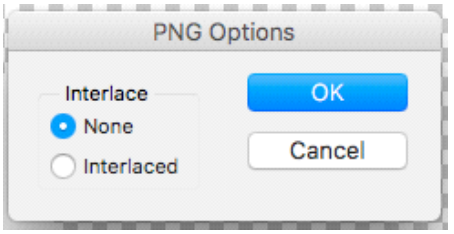






5. Save the file as "PongImages.png"
    a. Save it to your desktop
    b. File type needs to be PNG.
        i. The reason we use PNG is because it preserves the transparency in the file.
    c. Select 'OK' on the Interlaced options





2. Cutting Up Sprites

Saturday, February 24, 2018 2:42 PM

2. Cutting Up Sprites

3. Creating the Scene

Saturday, February 24, 2018 3:08 PM

3. Creating the Scene

4. Paddle and Ball Movement

Wednesday, February 28, 2018 7:20 AM

4. Basic Paddle M...

5. Advanced...

5. Paddle and Wall Collision

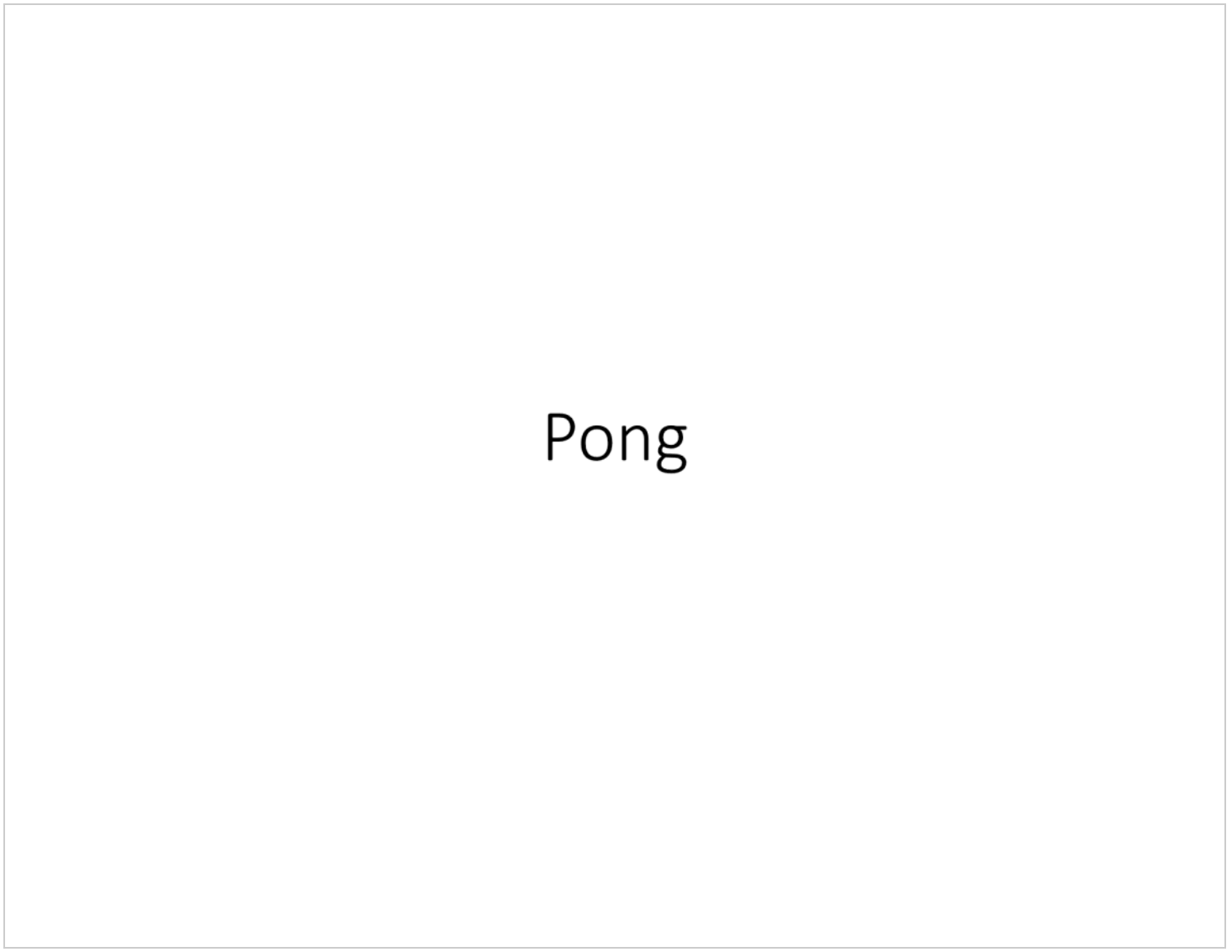
Monday, March 5, 2018 8:22 AM

6. GUI and Score

Monday, March 5, 2018 8:22 AM

Notes - Pong Programming and Unity Intro

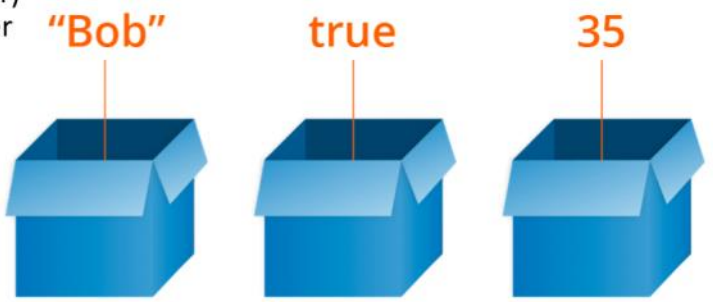
Monday, March 5, 2018 8:22 AM



Variables

```
public float speed = 10f;
private Rigidbody2D rb;
private int direction = 1;
public int leftScore = 0;
public int rightScore = 0;
public Text leftText;
public Text rightText;
```

- Variables –
- Name variables
- Data types:
  - int – an (whole number)
  - float – a point number
  - String –
  - boolean –
  - Vector3 – contains values for x, y & z
  - Vector2 – contains values for x & y



- Public vs Private
  - Public is in Unity Editor
  - Private is in Unity Editor

- Static – able to be accessed across multiple copies of same object and without reference

Methods

- A procedure/function
- Uses curly braces ({ }) to hold the code
- Return type
  - void – return nothing
  - int – return an integer number
  - String – return text
  - Etc.

```
void Update () {

}
```

Built In Methods for Unity

- Void Start() –
- Void Update() –
- Void OnCollisionEnter() –
- Void OnCollisionStay() – called every frame that collision is happening
- Void OnCollisionExit() – called when collision stops
- Void OnTriggerEnter() –
- Void OnTriggerStay() – called while still inside the trigger
- Void OnTriggerExit() – called when exiting the trigger
- All of these have a 2D variant

Conditions

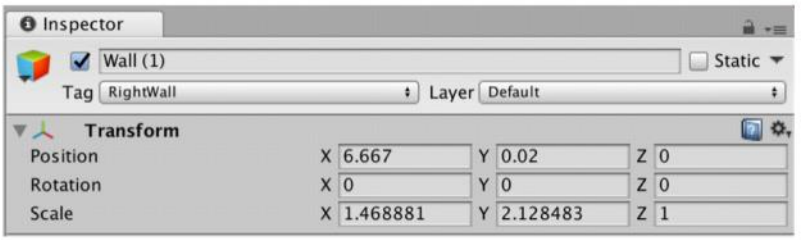
- Using an if statement
- Use curly braces ({ }) to contain the code
- Boolean expression is
- &&- AND - used for checking multiple conditions and
- ||- OR - used for checking multiple conditions and only

```
if (obj.gameObject.tag == "RightPaddle") {
```

```
if (Input.GetKey("down") && transform.position.y > -3.5) {
```

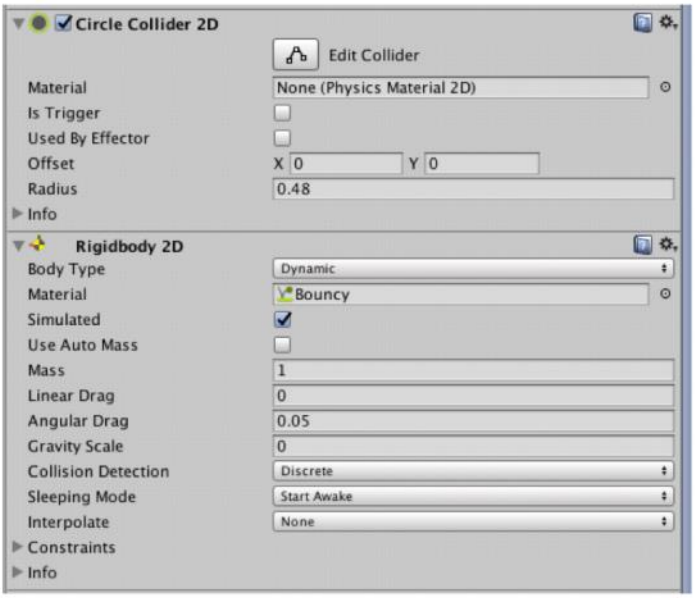
GameObjects

- Everything in Unity is a GameObject
- All GameObjects have a _____ that represent the Position, Rotation, and Scale in 3D space
- Uses _____ data types (x, y, & z)
- GameObjects can have
- GameObjects can be on



Rigidbody/Collision

- Colliders on objects
- Rigidbody on the GameObject we use for physics
- Use OnCollisionEnter or the 2D version for



C# Scripts

- Using commands –
- Public class –
  - ALL of our code is contained in this class inside the curly braces ({ })


```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class LeftPaddle1 : MonoBehaviour {

  // Use this for initialization
  void Start () {

  }

  // Update is called once per frame
  void Update () {

  }
}
```

Player Input

- Used inside the
- Used Input.GetKey() –
- Could also use:
  - Input.GetAxis() – vertical or horizontal that holds a number from -1 to 1, usually referenced to the arrow keys/WASD on keyboard or Analog sticks on controllers
  - Input.GetButton() – specific input buttons set up in Unity are called here.
- Use the transform components

```
void Update () {
  if (Input.GetKey("up") && transform.position.y < 3.5) {
    transform.Translate(Vector2.up * speed * Time.deltaTime);
  }
  if (Input.GetKey("down") && transform.position.y > -3.5) {
    transform.Translate(Vector2.down * speed * Time.deltaTime);
  }
}
```

Ball Movement

- Use built in velocity variable of the Rigidbody which is either a Vector2 or Vector3 data type.
  - .right – (1, 0)
  - .left – (-1, 0)
  - .up – (0, 1)
  - .down (0, -1)

```
void Start () {
  rb = GetComponent<Rigidbody2D>();
  Invoke("StartBall", 2);
}

void StartBall () {
  rb.velocity = new Vector2(direction, 0) * speed;
}
```

Ball Collision

- When hit paddle, we did some math to figure out if we were above or below the paddle for which way to send it back
- When hit the wall, we reset the ball to the middle, added to a player's score and started the ball again

```
void OnCollisionEnter2D (Collision2D obj) {
  if (obj.gameObject.tag == "RightPaddle") {
    float y = (transform.position.y - obj.transform.position.y)
                /obj.collider.bounds.size.y;
    Vector2 dir = new Vector2(-1, y).normalized;
    rb.velocity = dir * speed;
  }
  if (obj.gameObject.tag == "LeftPaddle") {
    float y = (transform.position.y - obj.transform.position.y)
                /obj.collider.bounds.size.y;
    Vector2 dir = new Vector2(1, y).normalized;
    rb.velocity = dir * speed;
  }
```

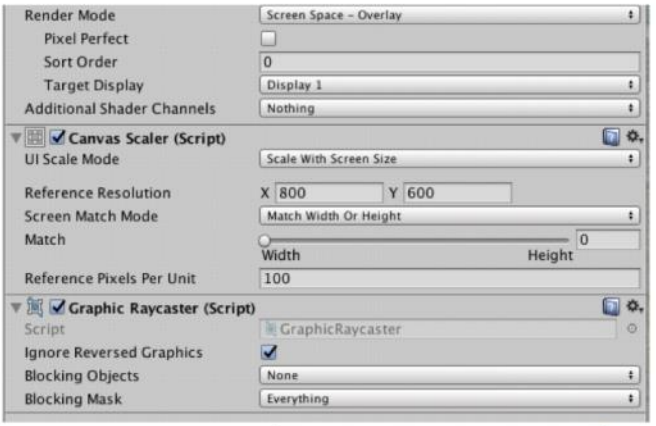
```
if (obj.gameObject.tag == "RightWall") {
  transform.position = new Vector3(0,0,0);
  rb.velocity = Vector2.zero;
  direction = -1;
  Invoke("StartBall", 1);
  leftScore++;
  leftText.text = leftScore.ToString();
}
if (obj.gameObject.tag == "LeftWall") {
  transform.position = new Vector3(0,0,0);
  rb.velocity = Vector2.zero;
  direction = 1;
  Invoke("StartBall", 1);
  rightScore++;
  rightText.text = rightScore.ToString();
}
```

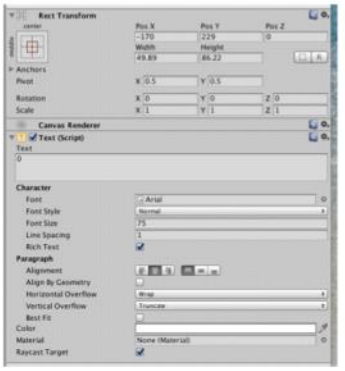
GUI

- Graphical User Interface –

- Canvas –

- GUI Elements –
  - Text
  - Image
  - Button
  - Toggle
  - Slider
  - Etc





1. Setting up the scene

Wednesday, March 7, 2018 11:59 AM

1. Breakout
Scene Set...

2. Paddle and Ball

Wednesday, March 7, 2018 11:59 AM

2. Basic Ball and Paddle

3. Blocks and Score

Wednesday, March 7, 2018 11:59 AM

3. Blocks and Reset

1. Making Image Sprites

Wednesday, March 21, 2018 7:19 AM

1. Space Invaders I...

2. Scene Setup

Monday, March 26, 2018 7:16 AM

2. Scene Set Up Pa...

3. Scene Set Up Pa...

3. Player Controls

Monday, March 26, 2018 7:16 AM

4. Player Movement

5. Player Firing

6. Fire Rate

4. Enemy Wave

Tuesday, March 27, 2018 7:08 AM

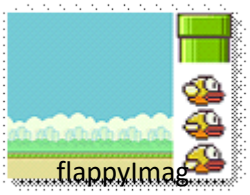
7. Enemy Wave Mo...

8. Enemy Shooting ...

1. Scene Setup

Wednesday, February 21, 2018 5:41 PM

1. Take a Copy of this image.
2. Watch the video



flappyImages

2. Flappy Bird

Monday, April 2, 2018 9:39 AM

Score and GUI

Monday, April 2, 2018 9:40 AM

1. Menu Scene

Monday, April 2, 2018 9:55 AM

2. Linking Games to Menu

Monday, April 2, 2018 9:55 AM

3. Build

Monday, April 2, 2018 9:56 AM

Summative Grading Rubric

Monday, April 2, 2018 9:56 AM

Grade	Description
1	Some games are complete, but missing 1-2 of them
2	All games are complete. No bugs in the code. They match what I did in class or video
3	All games are complete. Some creativity/uniqueness was put into the design.
4	All games are complete. Games are completely unique with choosing your own sprite colors and a bunch of creativity and thought was put into the game.