Final Project – CS162

## Brain Storm Game Ideas:

### Mystery:

* Clue
  + Problem solve
  + Different rooms
  + End when murder found
    - Randomize who murder is
    - Weapon
    - Room
  + Player is guest
    - Can choose name
* House MD
  + Solve the patients’ illness
  + Earn/Take Vicodin
    - Earn Vicodin with each successful treatment
  + Rooms
    - ER
    - Patient Room
    - House Office
    - Coma patients’ room (watch soap opera)
* Castle (TV show see Clue)
  + Police Precinct
  + Castle Loft
  + Crime Scene
  + Confrontation
  + Suspects House
  + Suspect Office
  + Connected Crime Scene

### Combat/Adventure:

* Harry Potter
  + Free Buckbeak
    - Rooms
      * Hospital Wing
      * Hagrid’s Hut
      * Forbidden Forest
    - Cannot go within one space of character
    - Harry and Hermione must survive
      * Can choose to be Harry or Hermione
  + Other mystery (like Clue?)
* Tron (Combat/Adventure)
  + Disk battle
  + Race
  + Get to I/O portal before close
* Super Mario Brothers (combat)?
* Escape the castle

# Game – Harry Potter: Free Buckbeak

## Requirements:

### Time Limit:

Must make it to Hagrid’s hut before the Ministry officials get there. Based on steps

* How many steps is enough?
* If in combat how many steps does that take away from reaching objective?
* If talking to professor how many steps does that take away from reaching objective?

### Spaces:

Must be four directions (front, back, left, right) that connect at least 6 spaces (think rooms). Rooms can be whatever, including arrays. Or things that contain objects

* Hospital Wing
* Hallway/Stairway
* Main Entrance
* Courtyard
* Pathway
* Hagrid’s Hut
* Pumpkin Patch
* Forbidden Forest

### Items:

* Wands
* Invisibility Cloak
* Dead Ferrets
* Buckbeak

### Classes:

* People (Character)
  + **Harry/Hermione**
    - **Harry:**
      * Can pick up invisibility cloak
        + Advantage as to no be seen
      * Battle has a revive feature (horcrux)
    - **Hermione:**
      * If in battle with Draco Malfoy has special tactic called punch where Malfoy is punched in the face and battle is auto won
      * If a professor is come across can distract by asking questions about Exams/other stuff
        + More likely to sneak past
  + **Teachers**
    - Headmaster Dumbledoor
    - Prof. Minerva McGongall
    - Prof. Severus Snape
    - Filtch
  + **Ministry**:
    - Minister of Magic
    - Lucius Malfoy
    - Excutioner
  + **Students**:
    - Draco Malfoy
    - Crabbe
    - Goyle
  + Teachers/Ministry Officials mean instant game over if spotted
    - Students when found by them create battle sequence
  + Sneaking is done by die roll
    - Invisibility cloak causes advantage to sneak past
  + Battle is done by die roll
    - If Hermione, punch Draco Malfoy in the face is an option
    - With no wands die weighted in favor of opponents
* Dice (probably part of character)
* Rooms – Can hold:
  + Items
  + People
  + Different Prompts
  + Determine if you come in contact with a person
    - If more than one person, which one
    - Then likely hood of interactions

Mechanics

* How to determine how many steps across rooms?
  + Each room had distance across in steps
* Every X steps roll to determine if person found
  + Random num between x-y
    - Different weights depending on if Hermione or Harry
      * Hermione can talk herself out of getting in trouble for wandering around (going to library)
* How many steps to complete game?

# Game Flow:

* Menu
* Choose Character
  + Harry
    - Special is invisibility cloak
    - Horcrux – rejuvenation to full strength
  + Hermione
    - Special is Face Punch
    - Ability to sweet talk professors (get out of being seen)
* Begin Game
  + Escape Hospital Wing
  + Get wands
  + Get cloak (if HP)
  + Avoid Madam Pomphrey on rounds
    - How many steps until a she does a round?
  + Enter Hallway/Stairway
    - Choice to look for items or move on
      * If look for items find a dead ferret
  + Enter Main Entrance
    - Avoid patrolling/passing professors
      * Dice roll determines if found
        + Advantage towards Hermione if she’s character
        + If HP with Invisibility cloak sneak past scot free
      * How many steps across Entrance way?
      * How many professors patrolling
    - Search for items?
      * Find dead ferret
  + Enter Courtyard
    - Avoid Malfoy and goons
      * If seen Fight Malfoy
        + If Hermione, a roll of x or above = punch to face is super effective. Malfoy has run off to tell his father about this!
        + If Harry no special except revive if strength = 0;
      * If in fight how many steps does it take away from objective
    - Search for items
      * Find nothing except not dead ferrets
  + Enter Pathway
    - Avoid Ministry Officials
      * If found game over
    - Search for items
      * Find ferrets
  + Enter Hagrid’s hut
    - Avoid Hagrid
      * If seen sent back to castle (game over)
    - Search for items
      * Find ferrets and halter/lead
  + Enter pumpkin patch
    - Roll dice to see if Buckbeak moves
      * The more ferrets you have the better chance of Buckbeak fallowing you
    - Get Buckbeak to Forbidden Forest before found
  + Enter Forbidden Forest
    - You won the game, Buckbeak is set free!

# Pseudocode:

* Int main()
  + Call menu
    - Menu calls gameplay
* Void gamePlay()
  + Int stepsTotal;
    - Total steps taken in game
  + Int stepsRoom;
    - Steps taken in a room
  + Make linked spaces
    - 6 new Rooms (Hospital Wing, Hallway, Entrance Hall, Courtyard, Hagrid’s Hut, Pumpkin Patch, Forbidden Forest)
      * Set room name
      * Set steps
      * Set pointer to teacher/student
      * Set pointer to items
  + Set buildings in order
    - Space pointers pointing correctly (they will all be in a line probably)
  + Choose Characters
    - Harry
    - Hermione
  + Begin game
    - Start in Hospital Wing
      * Search for items
      * Every 5 steps = roll to see if found by X