# PA9 Brainstorming

Sunday, April 14, 2024      11:20 AM

Meet during JSA on Tuesday? Or earlier during the day

## Doodle jump

https://github.com/b-kat-metzger/doodle-jump

- Platform base class
  - Derived platform classes for normal, breakable, and bounce
  - Use a Queue to contain all 6 platforms, dequeue the tail, enqueue new platforms to head
  - Update score everytime player collides with platform +=200
- Alien base class
- Player class
  - isFalling bool
    - Can only collide with platforms while falling
    - Can collide with alien at all time
- Actions class
  - In case where player goes off screen, need to teleport to other side
    - x and y will be the same but just need to modify x value and redraw sprite
- Sprite base class
  - Base class will be abstract
  - Constructor will draw sprite (to be overwritten in derived classes)
  - Derived player sprite
    - Left, right, up, shoot (all same class)
  - Derived bullet sprite
  - Derived alien sprite
    - 2 different aliens (can be same class)
    - Use andy as alien sprite, maybe lab TAs
  - Derived platform sprite
    - Normal, broken, super (all separate classes)
  - Private attributes
    - Dimensions (hitbox)
- Menu
  - Start, close, how to play buttons
- Keyboard event class
  - Arrow class to move
  - Spacebar shoot
- Test class

- Good platform / jump
- Bad platform / jump
- Test movement
- Test by falling
- Test death by alien

## "Multiplayer aspect"
- Can make a global scoreboard and push high scores onto the scoreboard, this is network communication and should fulfil the socket network bonus
- Scoreboard class

## Divided up work
1) Player and alien classes
    - Jacob
2) Sprites and platforms classes
    - Jawn
3) Keyboard events
    - Travis
4) Window (background, scrolling), menu, scoreboard
    - Ben