

## Priorities:

- Get Menu Image
- Gather Sprites
- Get Level 1 (and secret pipe?) Background Image
- Gather Sounds
- Draw Buttons where Menu Image indicates
- Make buttons interactive (temporarily shows that it can be clicked)
- Draw coins,
- Set up Timer for frames
- Create arrays for sprite animation
- \*\*\*\*\*Finite State Machine(?)\*\*\*\*\*
- Implement play button to run\_game()
- Draw mario sprite and background image to canvas (where menu displayed them)
- Set up Controls for Mario and background image
  - a. if mario moving right and mario.centerx == screen.centerx, move the background image left
  - b. if mario moving left, stop the background image and move mario
  - c. if bg\_image.rect.right == screen.rect.right, stop moving background image and move mario
- Set up spawn locations and frames of enemies
  - a. for example, goomba spawns when bg\_image.x == some magical x value
  - b. the same will apply for all other enemies
  - c. hoping for a better solution
- Set up spawn locations of coins, breakable blocks and 'random' boxes
  - a. probably implement with magic numbers ( like previous task )
- Set up collision detection (sprite instead of rect if possible within time frame)
  - a. if pygame.colliderect(mario, enemy): if mario.bottom == enemy.top: hurt enemy  
elif !mario.adult: mario.death() else: mario.adult = FALSE
  - b. if pygame.colliderect(mario, coin) or pygame.colliderect(mario, coin\_block):  
++coin\_score
  - c. if pygame.colliderect(mario, breakable\_block): if not mario.adult: bounce off of block else: break the block
  - d. if pygame.colliderect(mario, mystery\_block): if not mystery\_block.star: mushroom.spawn() else: star.spawn()
- Set up level completion
  - a. animate level transition
  - b. increment level
  - c. draw new map

Most of this should be easy to implement if our previous projects are well-written.