# nyanCat

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#### Button

- pos: Pvector
- Width, Height: floatColour, TextColor: color
- text: String
- Pressed, Clicked: boolean
- Image: PImagecurrentFrame: intframeSequence: intanim: PImage[]
- filePath: String - timeGap: int
- -Button(int posX,int posY,int wid,int hei, String text,int red,int green,int blue,String spritePath,Plmage img,Plmage[] animation, int tRed,int tGreen.int tBlue)
- -update()
- -renderButton()
- +isClicked(): boolean
- +getCat: PImage
- +getWidth():float
- +getHeight():float
- +getpos():PVector
- +getFilePath:String

#### Obstacle

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- w,h,x,y: float
- halfWidth, halfHeight: float
- velocityX: float
- img: PImage
- Obstalce(float \_x, float \_y, float \_w, float \_h,PImage img,float velocityX)
- + display()
- + update()
- + init()

## nyanCat

- gameState: String startButton: Button
- charOne,charTwo,charThree,charFour: Button
- normal,hard: ButtonbelowBoundary: floatbuttonArray: ArrayList
- obsList: ArrayList-player: Player - left,right,up,down: boolean
- copyCat: Enemy -difficulty: StringobstacleVelocityX: float
- timeGap: int
- oldtime,newtime,deltatime,timer: float
- score: int
- paused, appear: boolean
- initialX,initialY:float
- setup()
- buttonListenter()
- buttonInit()
- draw()
- startGame()
- plavGame()
- winGame()
- LoseGame()
- LoseGamePage()
- LuseGameray
- reset()
- clear()
- collisionDetection(Player player, Obstacle obs): boolean
- collisionPVE (Player player, Enemy copyCat): String
- getDeltaTime()
- keyPressed()
- keyReleased90
- difficultyChoose()
- operation2(params)
- operation3()

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### Enemy

- w,h,x,y,vx,vy,acclerationX: float
- accelerationY,speedLimit: float
- leftEdge, rightEdge, ground: float
- gravity,halfWidth,halfHeight: float
- currentFrame, frameSequence: int
- frameOffset: int
- c: Color
- dead: Boolean
- + Enemy(float x, float y)
- + setX(float x)
- + update()
- + display()
- + checkBoundaries()
- + deadJump()

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## Player

- winLose: Boolean
- cat: Pimage
- posX, posY, Width, Height: float
- velocityX, velocityY, accX, accY: float
- speedLimit, friction, gravity: float
- isOnGround: boolean
- jumpForce, halfWidth, halfHeight: float
- collisionSide: String
- touched: boolean
- lowBoundary: float
- walkFrame, frameSeugence: int
- frameOffset, idleFrame: int
- idleSequence, frames, timeGap: int
- idleImages, moveImages: PImage[]
- filePath: String
- Player(Boolean winLose, Plmage img, float posX,float posY,float wid,float hei,String filePath)
- + update()
- + setcat(PImage image)
- + setwinLose();
- + display()
- + setJumpForce(float force)
- + setGravity(float force)
- + setPosX(float position)
- + setPosY(float position)
- + setCollisionSide(String side)
- loadFiles()
- checkBoundaries()
- checkPlatforms()