AI PRESENTATION

Flappy bird

TEAM 21

- Phí Hoàng Long 20184288
- Vũ Tùng Lâm 20184283
- Nguyễn Văn Lực 20176812

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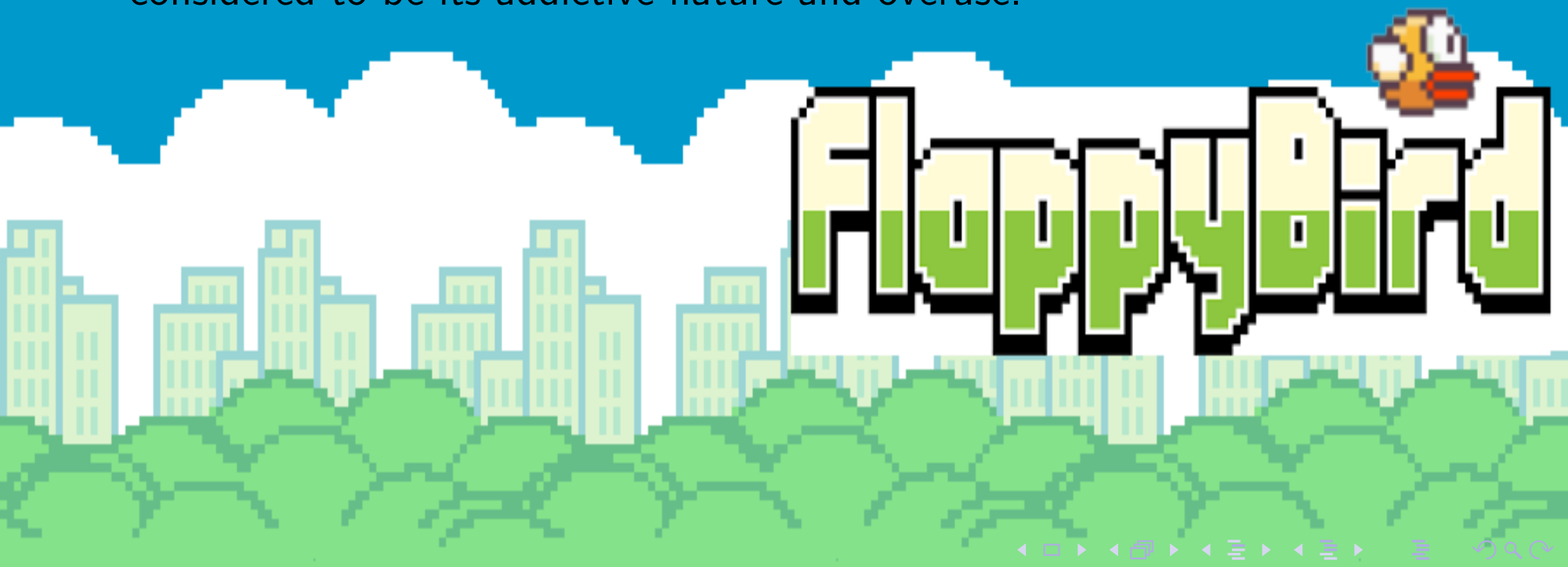
- Removed from Appstore and Google Play by its creator due to what he considered to be its addictive nature and overuse.



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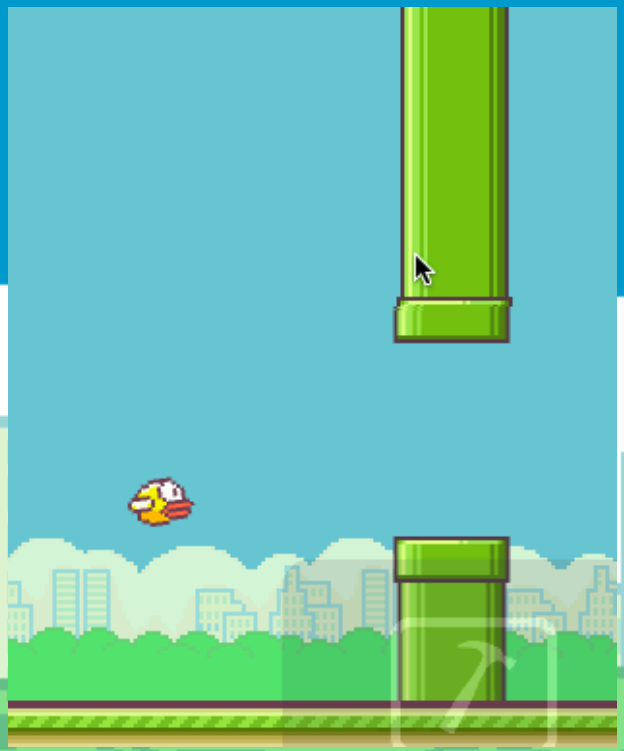


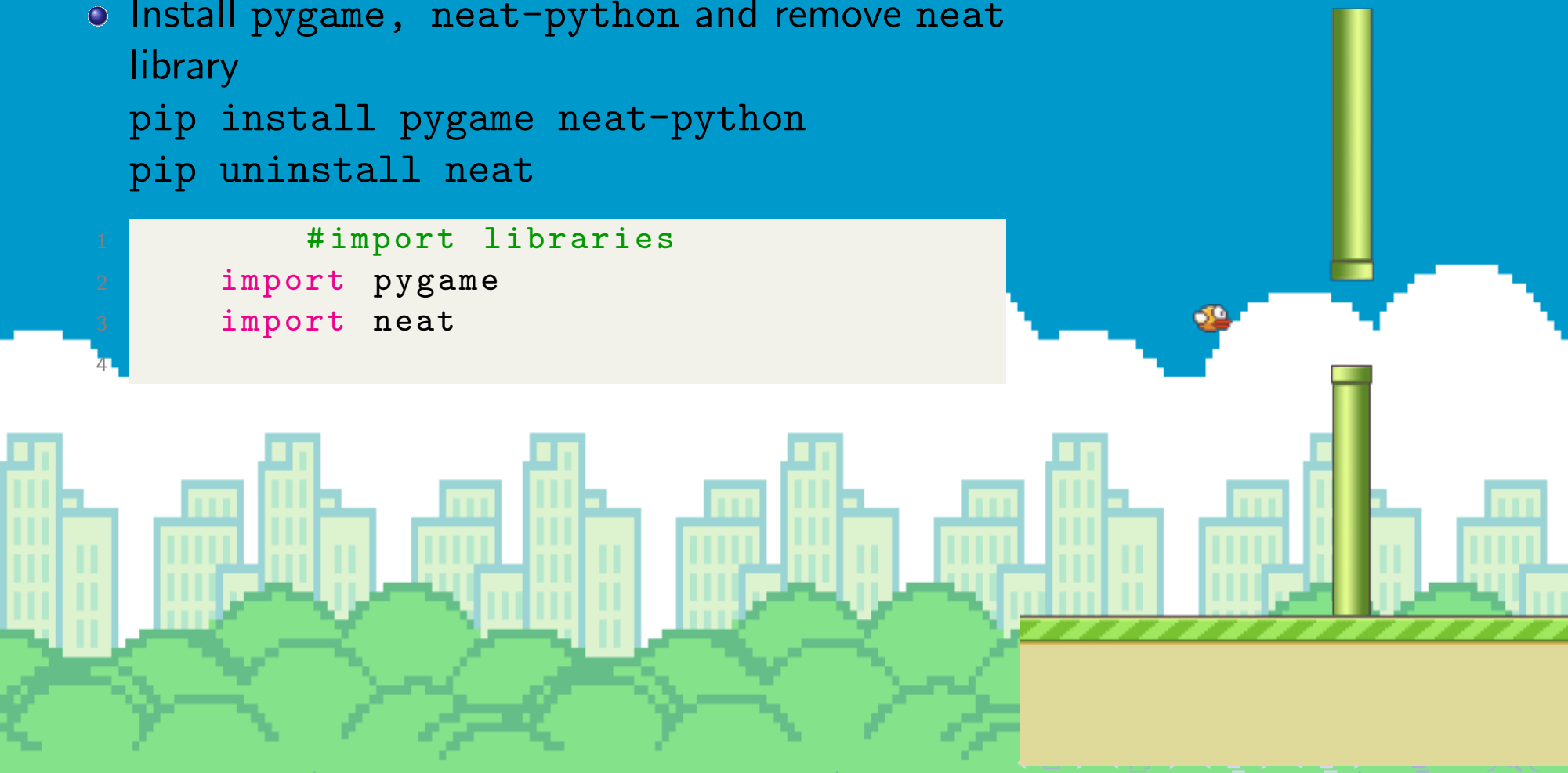
FLAPPY BIRD

Load images and set window

- Bird's status : 
- Install `pygame`, `neat-python` and remove `neat` library

```
pip install pygame neat-python
pip uninstall neat
```

```
1        #import libraries
2    import pygame
3    import neat
4
```



FLAPPY BIRD

Load images and set window

- Load images:

```
    #Load images
BIRD_IMGS = [pygame.image.load(os.path.join("img", "bird1.png")
    ),
    pygame.image.load(os.path.join("img", "bird2.png")),
    pygame.image.load(os.path.join("img", "bird3.png"))]
PIPE_IMG = pygame.transform.scale(pygame.image.load(
    os.path.join("img", "pipe.png")), (60, 400))
BASE_IMG = pygame.transform.scale(pygame.image.load(
    os.path.join("img", "base.png")), (400, 112))
BG_IMG = pygame.transform.scale(pygame.image.load(
    os.path.join("img", "bg.png")), (400, 600))

```

- Load windows:

```
    #Load window
WIN_WIDTH = 400
WIN_HEIGHT = 600
WIN = pygame.display.set_mode((WIN_WIDTH, WIN_HEIGHT))

```

FLAPPY BIRD

Evaluate a genome and draw window

- Evaluation function

```
    # Evaluation function
def eval_genomes(genomes, config):
    for pipe in pipes:
        for index, bird in enumerate(birds):
            if pipe.collide(bird):
                ge[index].fitness -= 1
                birds.pop(index)
                nets.pop(index)
                ge.pop(index)
            if not pipe.passed and pipe.x < bird.x:
                pipe.passed = True
                add_pipe = True
        if pipe.x + pipe.PIPE_TOP.get_width() < 0:
            rem.append(pipe)
        pipe.move()
    if add_pipe:
        score += 1
        pipes.append(Pipe(400))

```

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Evaluate a genome and draw window

- Draw window

```
    # Draw window
def draw_window(win, birds, pipes, base, score, GEN, pipe_ind):
    if GEN == 0:
        GEN = 1
    win.blit(BG_IMG, (0,0))
    for pipe in pipes:
        pipe.draw(win)
    base.draw(win)
    for bird in birds:
        bird.draw(win)
    pygame.display.update()

```