

The background of the slide is a deep space scene. In the top right corner, a portion of the Earth is visible, showing blue oceans and white clouds. In the bottom left corner, a portion of the reddish-orange planet Mars is visible. The rest of the background is a dark, star-filled space with a faint, glowing nebula or galaxy structure stretching across the middle.

# *Space War Project*

## KELOMPOK 2

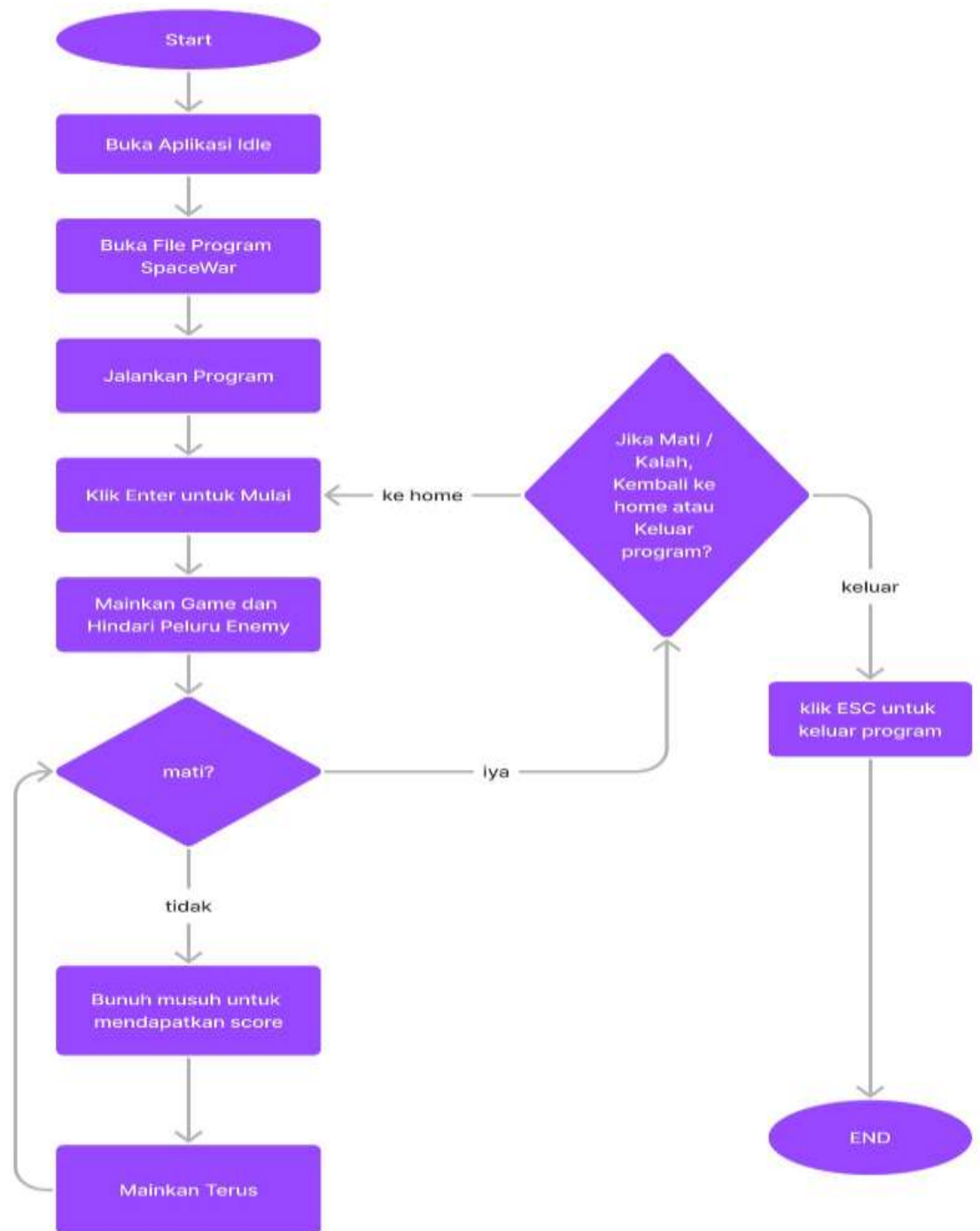
1. Wisnu Adji Nugroho
2. Syarif Lazuardi
3. Reagan Alvey
4. Satria Eka Syahputra
5. Triansyah Subekti
6. Sekar kirandana



# Requirement Gathering

1. Backsound / music.
2. Gambar musuh,player, UFO, bullet player, bullet musuh.
3. Aplikasi menjalankan program (Idle/Vscode/lainnya).
4. Source Code Program (include extensions pygame).
5. Score.

# Flowchart





# SWOT

## Strength

- Bisa dimainkan terus menerus
  - Gameplay yang cepat
  - Mudah dimainkan



## Weakness

- Gameplay monoton

## Opportunity

- Tidak perlu banyak tenaga dalam pembuatan dan pengembangannya

## Threat

- Game lain

# Update

1. Menambahkan Rintangan baru
2. Menambahkan Boss
3. Menambahkan Skill dari player
4. Menambahkan kesulitan

# Desain



Tampilan Awal



Tampilan Game Over



# Desain



Sesudah mendapatkan score



Sebelum mendapatkan score



Player menembak

# Source Code

```
File Edit Format View Options Window Help
pygame.locals pygame

pygame.init()

#Music
star_sound = pygame.mixer.Sound('start/background.mp3')
water = pygame.mixer.Sound('water.wav')
bullet = pygame.mixer.Sound('gun_shot.wav')
background_music = pygame.mixer.music.load('background/music.mp3')
pygame.mixer.music.play(0)

#Sprites
player_img = "player.png"
enemy_img = "enemy.png"
info_img = "info.png"
p_bullet_img = "bullet.png"
h_bullet_img = "hole.png"
hullets = "bullet.png"
heart = "heart.png"

#Renderback Screen
screen = pygame.display.set_mode((700, FULLSCREEN))
x_width, y_height = screen.get_size()

#Renderback FPS
clock = pygame.time.Clock()

FPS = 120

#Renderback Variables
background_group = pygame.sprite.Group()
player_group = pygame.sprite.Group()
enemy_group = pygame.sprite.Group()
info_group = pygame.sprite.Group()
```

Code untuk :

1. Gambar
2. Suara
3. FPS
4. Background

```

File Edit Format Run Options Window Help
Python 3.10.0

#Backend Variables
background_group = pygame.sprite.Group()
player_group = pygame.sprite.Group()
enemy_group = pygame.sprite.Group()
elf_group = pygame.sprite.Group()
chulul_group = pygame.sprite.Group()
chulul_group = pygame.sprite.Group()
bullet_group = pygame.sprite.Group()
spike_group = pygame.sprite.Group()
heart_group = pygame.sprite.Group()

#Backend Background Objects
class Background(pygame.sprite.Sprite):
    def __init__(self, x, y):
        super().__init__()

        self.image = pygame.Surface(50, 50)
        self.image.fill('red')
        self.image.set_colorkey('black')
        self.rect = self.image.get_rect()

    def update(self):
        self.rect.x += 1
        self.rect.y += 1

        if self.rect.x > 400:
            self.rect.x = 0
            self.rect.y = random.randrange(0, 400, 50)

#Backend Player
class Player(pygame.sprite.Sprite):

```

Code untuk :

1. Background
2. Variable



# Source Code

```
#!/usr/bin/env python3
# -*- coding: utf-8 -*-

import pygame
import random
import sys

# Initialize pygame
pygame.init()

# Screen dimensions
SCREEN_WIDTH = 800
SCREEN_HEIGHT = 600

# Colors
BLACK = (0, 0, 0)
WHITE = (255, 255, 255)
RED = (255, 0, 0)
GREEN = (0, 255, 0)
BLUE = (0, 0, 255)

# Load images
player_img = pygame.image.load('player.png')
bullet_img = pygame.image.load('bullet.png')
enemy_img = pygame.image.load('enemy.png')

# Create player class
class Player(pygame.sprite.Sprite):
    def __init__(self, img):
        self.image = img
        self.rect = self.image.get_rect()
        self.rect.centerx = 500
        self.rect.bottom = 100

    def update(self):
        # Get mouse position
        mouse = pygame.mouse.get_pos()
        self.rect.x = mouse[0]
        self.rect.y = mouse[1]

    def fire(self):
        bullet = pygame.sprite.Sprite()
        bullet.image = bullet_img
        bullet.rect = bullet.image.get_rect()
        bullet.rect.x = self.rect.x
        bullet.rect.y = self.rect.y
        self.group.add(bullet)

# Create enemy class
class enemy(pygame.sprite.Sprite):
    def __init__(self, img):
        self.image = img
        self.rect = self.image.get_rect()
        self.rect.x = random.randrange(0, SCREEN_WIDTH - 100)
        self.rect.y = random.randrange(0, SCREEN_HEIGHT - 100)
        self.screen.blit(self.image, (self.rect.x, self.rect.y))

    def update(self):
        self.rect.y += 1
```

Code untuk :

1. Player
2. Peluru
3. Musuh

```
#!/usr/bin/env python3
# -*- coding: utf-8 -*-

import pygame
import random
import sys

# Initialize pygame
pygame.init()

# Screen dimensions
SCREEN_WIDTH = 800
SCREEN_HEIGHT = 600

# Colors
BLACK = (0, 0, 0)
WHITE = (255, 255, 255)
RED = (255, 0, 0)
GREEN = (0, 255, 0)
BLUE = (0, 0, 255)

# Load images
player_img = pygame.image.load('player.png')
bullet_img = pygame.image.load('bullet.png')
enemy_img = pygame.image.load('enemy.png')

# Create player class
class Player(pygame.sprite.Sprite):
    def __init__(self, img):
        self.image = img
        self.rect = self.image.get_rect()
        self.rect.centerx = 500
        self.rect.bottom = 100

    def update(self):
        # Get mouse position
        mouse = pygame.mouse.get_pos()
        self.rect.x = mouse[0]
        self.rect.y = mouse[1]

    def fire(self):
        bullet = pygame.sprite.Sprite()
        bullet.image = bullet_img
        bullet.rect = bullet.image.get_rect()
        bullet.rect.x = self.rect.x
        bullet.rect.y = self.rect.y
        self.group.add(bullet)

# Create enemy class
class enemy(pygame.sprite.Sprite):
    def __init__(self, img):
        self.image = img
        self.rect = self.image.get_rect()
        self.rect.x = random.randrange(0, SCREEN_WIDTH - 100)
        self.rect.y = random.randrange(0, SCREEN_HEIGHT - 100)
        self.screen.blit(self.image, (self.rect.x, self.rect.y))

    def update(self):
        self.rect.y += 1
```

Code untuk :

1. Musuh
2. Musuh menembak
3. UFO
4. UFO menembak

## Code untuk Peluru Player

[illegible]

© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 103–110

## Code untuk Screen Home



# Source Code

```
pygame.init()
pygame.mixer.init()
screen = pygame.display.set_mode((640, 480))
pygame.display.set_caption('Snake Game')

# Snake
snake = pygame.Rect(50, 50, 10, 10)
snake_speed = 5

# Food
food = pygame.Rect(150, 150, 10, 10)

# Direction
direction = 'right'

def start_game():
    # Snake
    snake = pygame.Rect(50, 50, 10, 10)
    snake_speed = 5

    # Food
    food = pygame.Rect(150, 150, 10, 10)

    # Direction
    direction = 'right'

    # Game loop
    while True:
        # Event handling
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                pygame.quit()
                sys.exit()

            # Key press
            if event.type == pygame.KEYDOWN:
                if event.key == pygame.K_UP:
                    direction = 'up'
                elif event.key == pygame.K_DOWN:
                    direction = 'down'
                elif event.key == pygame.K_LEFT:
                    direction = 'left'
                elif event.key == pygame.K_RIGHT:
                    direction = 'right'

        # Move snake
        if direction == 'up':
            snake.y -= snake_speed
        elif direction == 'down':
            snake.y += snake_speed
        elif direction == 'left':
            snake.x -= snake_speed
        elif direction == 'right':
            snake.x += snake_speed

        # Check for food
        if snake.colliderect(food):
            # Game over
            pygame.quit()
            sys.exit()

        # Draw
        screen.fill((0, 0, 0))
        pygame.draw.rect(screen, (0, 255, 0), snake)
        pygame.draw.rect(screen, (255, 0, 0), food)
        pygame.display.flip()

        # Clock
        clock = pygame.time.Clock()
        clock.tick(30)
```

Code untuk screen start

```
def game_over():
    # Game over
    pygame.quit()
    sys.exit()

def create_background():
    # Create background
    background = pygame.Surface((640, 480))
    background.fill((0, 0, 0))
    background.set_colorkey((0, 0, 0))
    background.blit(background, (0, 0))
    background_group.add(background)
    return background_group

def create_player():
    # Create player
    player = pygame.Rect(50, 50, 10, 10)
    player_group.add(player)
    return player_group

def create_enemy():
    # Create enemy
    enemy = pygame.Rect(150, 150, 10, 10)
    enemy_group.add(enemy)
    return enemy_group
```

Code untuk :

1. Screen game over
2. Membuat background

# Source Code

```
def __init__(self):
    self.player = Player(100, 100, 100, 100)
    self.player_group = pygame.sprite.Group()
    self.player_group.add(self.player)

    self.enemy = Enemy(100, 100, 100, 100)
    self.enemy_group = pygame.sprite.Group()
    self.enemy_group.add(self.enemy)

    self.ufo = UFO(100, 100, 100, 100)
    self.ufo_group = pygame.sprite.Group()
    self.ufo_group.add(self.ufo)

    self.score = 0
    self.font = pygame.font.Font('freesansbold.ttf', 32)
    self.text = self.font.render('Score: ' + str(self.score), True, black)
    self.text_rect = self.text.get_rect()
    self.text_rect.center = (400, 100)

    self.screen = pygame.display.set_mode((800, 600))
    pygame.display.set_caption('Space Invaders')
    self.clock = pygame.time.Clock()

    self.run()

def run(self):
    while True:
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                pygame.quit()
                sys.exit()

        self.screen.fill((0, 0, 0))

        self.player_group.update()
        self.enemy_group.update()
        self.ufo_group.update()

        self.score += 1
        self.text = self.font.render('Score: ' + str(self.score), True, black)
        self.text_rect = self.text.get_rect()
        self.text_rect.center = (400, 100)

        pygame.display.flip()
        self.clock.tick(60)
```

Code untuk :

1. Membuat Player
2. Musuh
3. UFO
4. Peluru player mengenai musuh
5. Peluru musuh mengenai player

```
def __init__(self):
    self.player = Player(100, 100, 100, 100)
    self.player_group = pygame.sprite.Group()
    self.player_group.add(self.player)

    self.enemy = Enemy(100, 100, 100, 100)
    self.enemy_group = pygame.sprite.Group()
    self.enemy_group.add(self.enemy)

    self.ufo = UFO(100, 100, 100, 100)
    self.ufo_group = pygame.sprite.Group()
    self.ufo_group.add(self.ufo)

    self.score = 0
    self.font = pygame.font.Font('freesansbold.ttf', 32)
    self.text = self.font.render('Score: ' + str(self.score), True, black)
    self.text_rect = self.text.get_rect()
    self.text_rect.center = (400, 100)

    self.screen = pygame.display.set_mode((800, 600))
    pygame.display.set_caption('Space Invaders')
    self.clock = pygame.time.Clock()

    self.run()

def run(self):
    while True:
        for event in pygame.event.get():
            if event.type == pygame.QUIT:
                pygame.quit()
                sys.exit()

        self.screen.fill((0, 0, 0))

        self.player_group.update()
        self.enemy_group.update()
        self.ufo_group.update()

        self.score += 1
        self.text = self.font.render('Score: ' + str(self.score), True, black)
        self.text_rect = self.text.get_rect()
        self.text_rect.center = (400, 100)

        pygame.display.flip()
        self.clock.tick(60)
```

Code untuk :

1. Peluru UFO mengenai Player
2. Nyawa/Live
3. Score
4. Screen text



# Source Code

```
Python 3.10.11 - C:\Users\winu adi nugroho\Downloads\game.py (3.10.11)
File Edit Format Run Options Window Help

#Shooting Player

class Player(pygame.sprite.Sprite):
    def __init__(self, img):
        super().__init__()
        self.image = pygame.image.load(img)
        self.rect = self.image.get_rect()
        self.image.set_colorkey('black')

    def update(self):
        mouse = pygame.mouse.get_pos()
        self.rect.x = mouse[0]
        self.rect.y = mouse[1]

    def peluru(self):
        bullet = pygame.sprite.Sprite()
        mouse = pygame.mouse.get_pos()
        bullet.rect.x = mouse[0]
        bullet.rect.y = mouse[1]
        pbullet_group.add(bullet)
        sprite_group.add(bullet)

class enemy(Player):
    def __init__(self, img):
        super().__init__(img)
        self.rect.x = random.randrange(100, 500, 100)
        self.rect.y = random.randrange(500, 1000, 100)
        screen.blit(self.image, (self.rect.x, self.rect.y))

    def update(self):
        self.rect.y += 1
```

Code untuk :

1. Jalankan Game
2. Looping