BRICK BREAKER GAME

Group members:
1. Sajjad Ahmad
2. M. Huzaifa Naeem

MOTIVATION BEHIND PROJECT

TIRED OF BORING PROGRAMS

Examples include Library Management System, Attendance Management System, etc

ENTERTAINMENT VALUE

Developing and playing your own game has immense entertainment potential.

PROJECT OVERVIEW

GAME OVER!!

Brick Breaker Game is a single-player, widely popular platform game, which has, after its initial release in 1999, become a world-wide classic

PROJECT DESCRIPTION

01 THE PLAYER MUST BREAK ALL THE TILES TO WIN THE GAME

02 THE PADDLE CAN MOVE ALONG HORIZONTAL TO BOUNCE THE BALL

03 PLAYER LOSES A LIFE IF THE BALL FALLS DOWN THE SCREEN

04 RUNNING OUT OF LIVES MEANS "GAME OVER!!!"

PROJECT AIMS AND OBJECTIVES

TO DEVELOP A PLATFORM GAME, INTENDED FOR ENTERTAINMENT PURPOSES

TO EMPLOY OOP TECHNIQUES TO MAKE THE CODING PROCESS EFFICIENT

TO LEARN THE USE OF PYGAME LIBRARY, IN GAME DEVELOPMENT

PROJECT METHODOLOGY

Using *Pygame Library*

- Screen fill, blit, flip methods useful for game development

Modules for Game Elements

- Different classes to describe game elements like Bricks, Paddle, Ball, Health Bar.
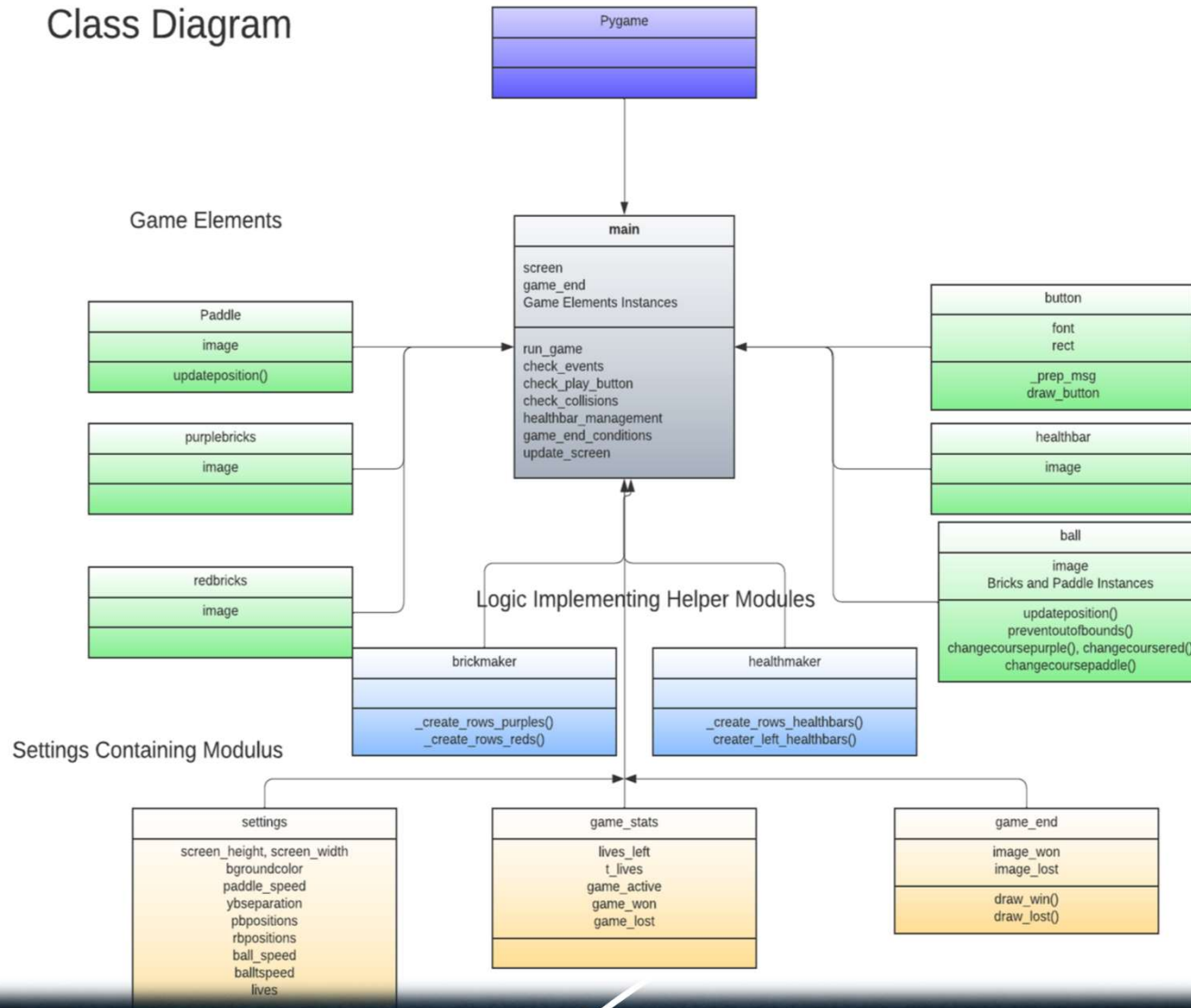
Inheriting pygame.sprite Base Class

- Useful for grouping similar objects like rows of bricks.

Helper Modules, containing logics like

- Reflections Of Ball, Health Bar Control, Brick Rows Management

Class Diagram

Pygame

main

screen
game_end
Game Elements Instances

run_game
check_events
check_play_button
check_collisions
healthbar_management
game_end_conditions
update_screen

Game Elements

Paddle

image

updateposition()

purplebricks

image

redbricks

image

button

font
rect

_prep_msg
draw_button

healthbar

image

ball

image
Bricks and Paddle Instances

updateposition()
preventoutofbounds()
changecoursepurple(), changecoursered()
changecoursepaddle()

Logic Implementing Helper Modules

brickmaker

_create_rows_purples()
_create_rows_reds()

healthmaker

_create_rows_healthbars()
creater_left_healthbars()

Settings Containing Modulus

settings

screen_height, screen_width
bgroundcolor
paddle_speed
ybseparation
pbpositions
rbpositions
ball_speed
balltspeed
lives

game_stats

lives_left
t_lives
game_active
game_won
game_lost

game_end

image_won
image_lost

draw_win()
draw_lost()

PROJECT DEMONSTRATION

(drumroll please,,,,)

Play

FUTURE IMPROVEMENTS

MORE LEVELS OF PLAYTHROUGH

INTRICATE LEVEL DESIGNS

SCORING SYSTEM

POWER UPS