Main Game Loop

Start

import sys

import pygame

import time

import random

pygame.init()

screen = pygame.display.set_mode((1150, 500))

print(pygame.QUIT)

white = pygame.Color(255, 255, 255)

black = pygame.Color(0, 0, 0)

font = pygame.font.Font("Subscribe.TTF", 20)

class Teachers
- Variables: name, goodie, cost, image, x, y
- No functions defined

define list of teachers using Teacher class

define dictionary commands of commands

define dictionary prices of shop prices

define list for_sale of shop items

define dictionary sidebar for the sidebar dimensions

class Picker
- Variables: y=80, index=0
- draw_self() draws the picker
- next() moves the picker down 25 and increases index by 1
- prev() moves picker up 25 and decreases index by 1
- next() and prev() only run if picker is between y=80 and y=355

picker = font.render('>', True, white

picker1 = Picker()

tears = 500

define blank list inventory for bought items

define dictionary trivia_topics for

open_shop

open_shop()

create text object asking player what they want to buy

draw text object on screen

define y=80 for initial text height for items

for key, value in prices.items() → shop_list = font.render(f'{key}: {value}', True, white) → draw shop_list on screen at (730, y) → y += 25

down arrow key is pushed? —yes→ pygame.time.wait(900) → picker1.next()
| no

up arrow key is pushed? —yes→ pygame.time.wait(900) → picker1.prev()
| no

picker1.draw_self()

return

Note: most predefined functions referenced in the main loop are similarly structured to the open_shop function.

```
trivia_topics for
question topics
```

```
define dictionary
trivia_questions for all
the available
questions
```

```
define dictionaries for
each question including
all answer choices and
correctness
```

```
define blank list
teachers_bought for
all collected teachers
```

```
scene = ' '
```

```
while True:
```

```
keys =
pygame.key.get_pressed()
```

keys[pygame.K_ESCAPE]? —yes→ `pygame.quit()` → (quit())

no ↓

keys[pygame.K_RIGHT] and scene == 'clear'? —yes→ `scene = 'shop'` → `run1 = True`

no ↓

keys[pygame.K_SPACE]? —yes→ `scene = 'clear'` → `num = 0` → `paid = False` → `teach_appeared = False` → `clicked_yes = False` → `clicked_no = False`

no ↓

keys[pygame.K_RETURN] and scene == 'shop'? —yes→ `scene = 'purchased'`

no ↓

keys[pygame.K_t]? —yes→ `scene = 'start trivia'` → `sub_picked = False` → `picked_yet = False`

no ↓

keys[pygame.K_RETURN] and scene == 'start trivia'? —yes→ `scene = 'question'` → `picked_an_ans = False`

no ↓

keys[pygame.K_RIGHT] and scene == 'question'? —yes→ `scene = 'answered'` → `run1_trivia = True`

no ↓

```
for event in
pygame.event.get()
```
→ event.type == pygame.QUIT? —yes→ (sys.exit())

no ↓

`draw_back()`

↓

scene == ' '? —yes→ `welcome()`

no ↓

scene == 'shop'? —yes→ `open_shop()`

no ↓

```
                    ↑
              ┌─────┴─────┐
   scene == 'purchased'? ──yes──→ │ purchase() │
              └─────┬─────┘
                   no
                    ↓
              ┌─────┴─────┐
     scene == 'clear'? ──yes──→ │ teacher_arrival() │ ──→ teach_appeared == ──yes──→ │ teacher_stay() │
              └─────┬─────┘                                      True?
                   no                                             │no
                    ↓←──────────────────────────────────────────────
              ┌─────┴─────┐
     scene == 'trivia'? ──yes──→ │ trivia_start() │
              └─────┬─────┘
                   no
                    ↓
              ┌─────┴─────┐
       scene ==       ──yes──→ │ display_question() │ ──→ │ your_answer() │
      'question'?
              └─────┬─────┘
                   no
                    ↓←──────────────────────────────────────────
              ┌─────┴─────┐
       scene ==       ──yes──→ │ validate_answer() │
      'answered'?
              └─────┬─────┘
                   no
                    ↓
         │ display_money() │ ←──────────────
                    │
                    ↓
         │ display_teachers() │
                    │
                    ↓
         ( pygame.display.flip() )
```