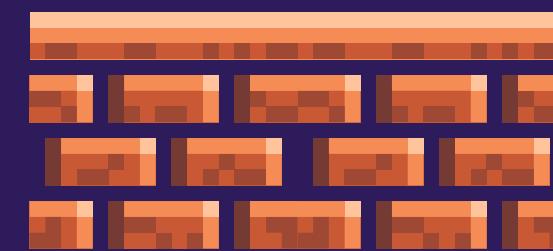
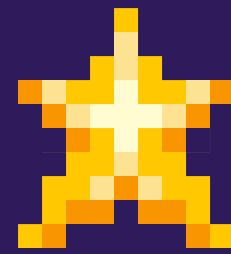


PLAYER 1



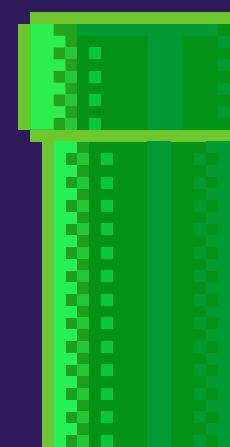
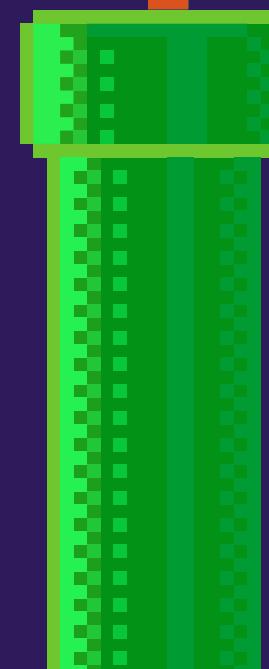
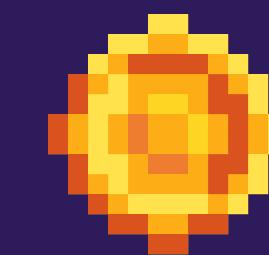
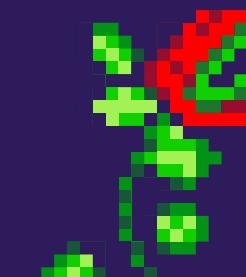
HIGHSCORE 2500

PLAYER 2



LET'S
CHEM

LET'S PLAY!



STOICHIOMETRY

NEUTRALIZATION

THE PERIODIC TABLE

THE ATOM

CONCEPTS

The main aspects of the concept that the problem addresses is all chemistry related. In particular, they address problems that were encountered during the General Chemistry course at Vanier College (202-NYA-05).

This includes:

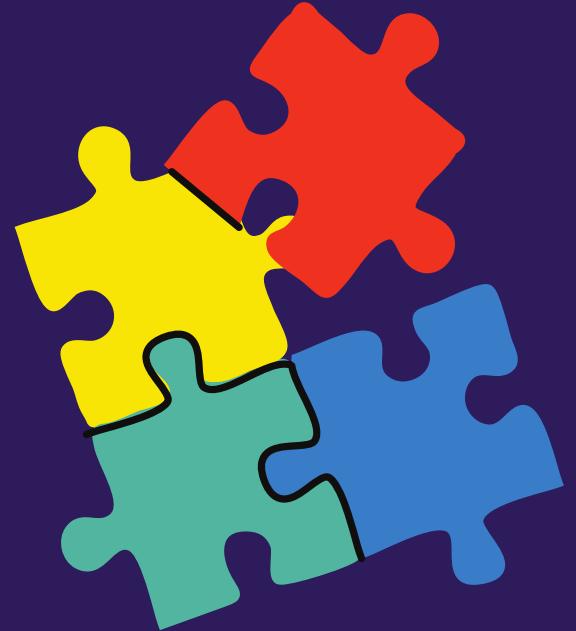
PERIODIC TRENDS

GASES

MOLAR MASS AND
MOLE
CONVERSIONS



OBJECTIVE



OUR PROGRAM IS DESIGNED TO BE AN **EDUCATIONAL RESOURCE**

THE GOAL IS TO:

- LEARN
- REVISE
- OUTLINE WEAKNESSES
- PROVIDE A FUN WAY TO PRACTICE THE OUTLINED CHEMISTRY CONCEPTS

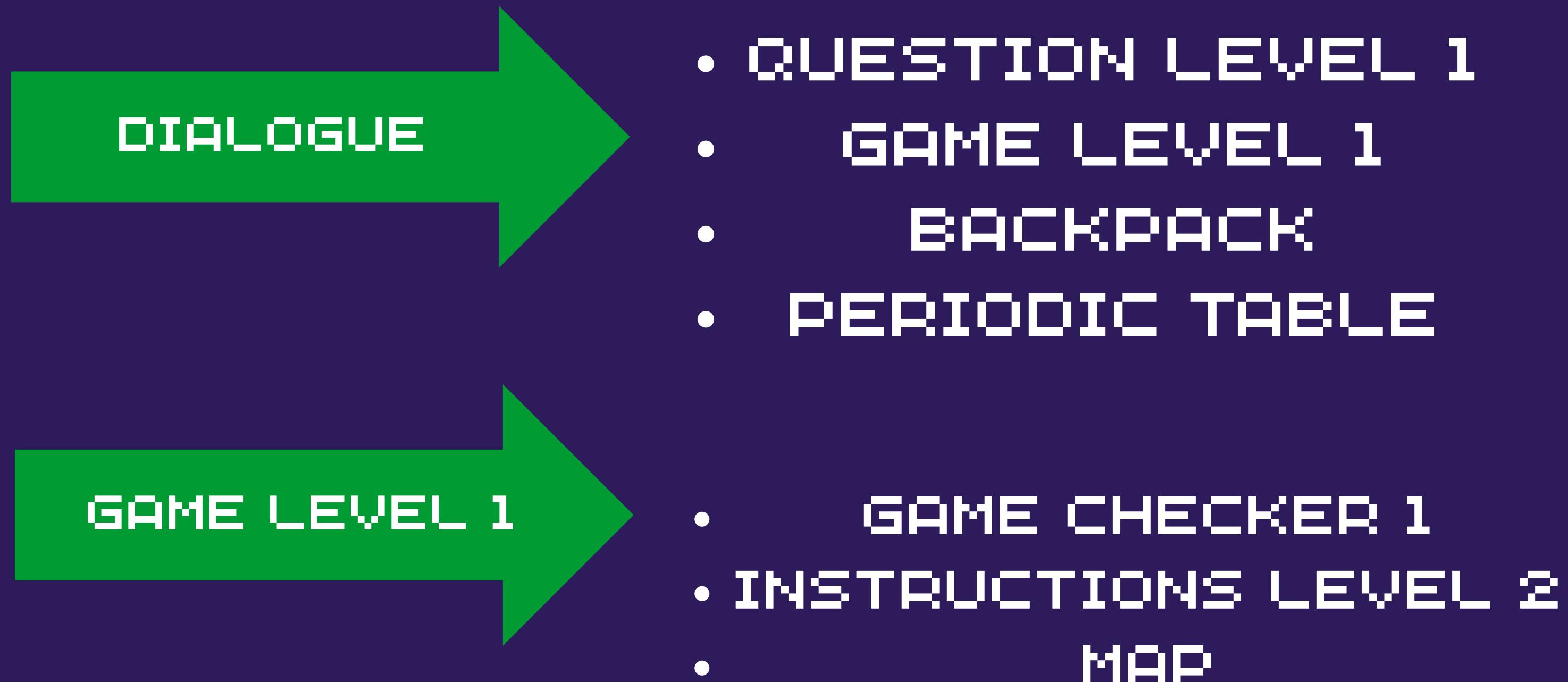
WORKFLOW

START GAME

ACCOUNT MADE

- LOGIN
- CREATE ACCOUNT
- SETTINGS
- INSTRUCTIONS/DIALOGUE

WORKFLOW



WORKFLOW



- ALKALI METALS
 - ALKALINE EARTH METALS
 - TRANSITION METALS
 - NOBLE GASES
 - HALOGENS
-
- LEVEL 3
 - DIALOGUE
 - GAMEOVER

MENU

→ 01

◆ 07

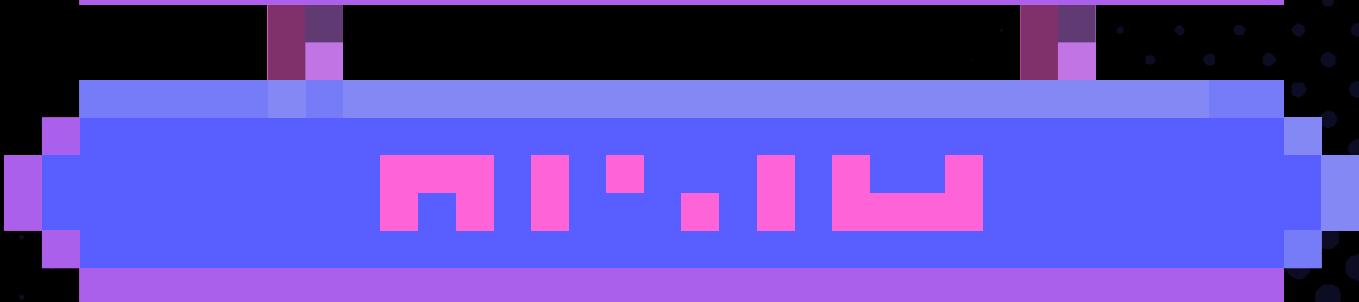
★ 12

TABASUM



WORKED ON

- ❖ Families and Levels
- ❖ Graphics and position for worlds
(platform, portals, sprites)
- ❖ Help/Ressources/Instructions
- ❖ Finding databases
- ❖ Generalizing UI and graphics throughout
the game
- ❖ Skippability



MENU

➤ 01

♦ 07

★ 12

TABASUM



LESSONS LEARNED

Challenges faced (solutions):

- ➔ Setting positions for all UI (+ stacking) and proportional to screen
- ➔ Finding databases
- ➔ Generalizing code to work for multiple functionalities
- ➔ Finding Graphics that work

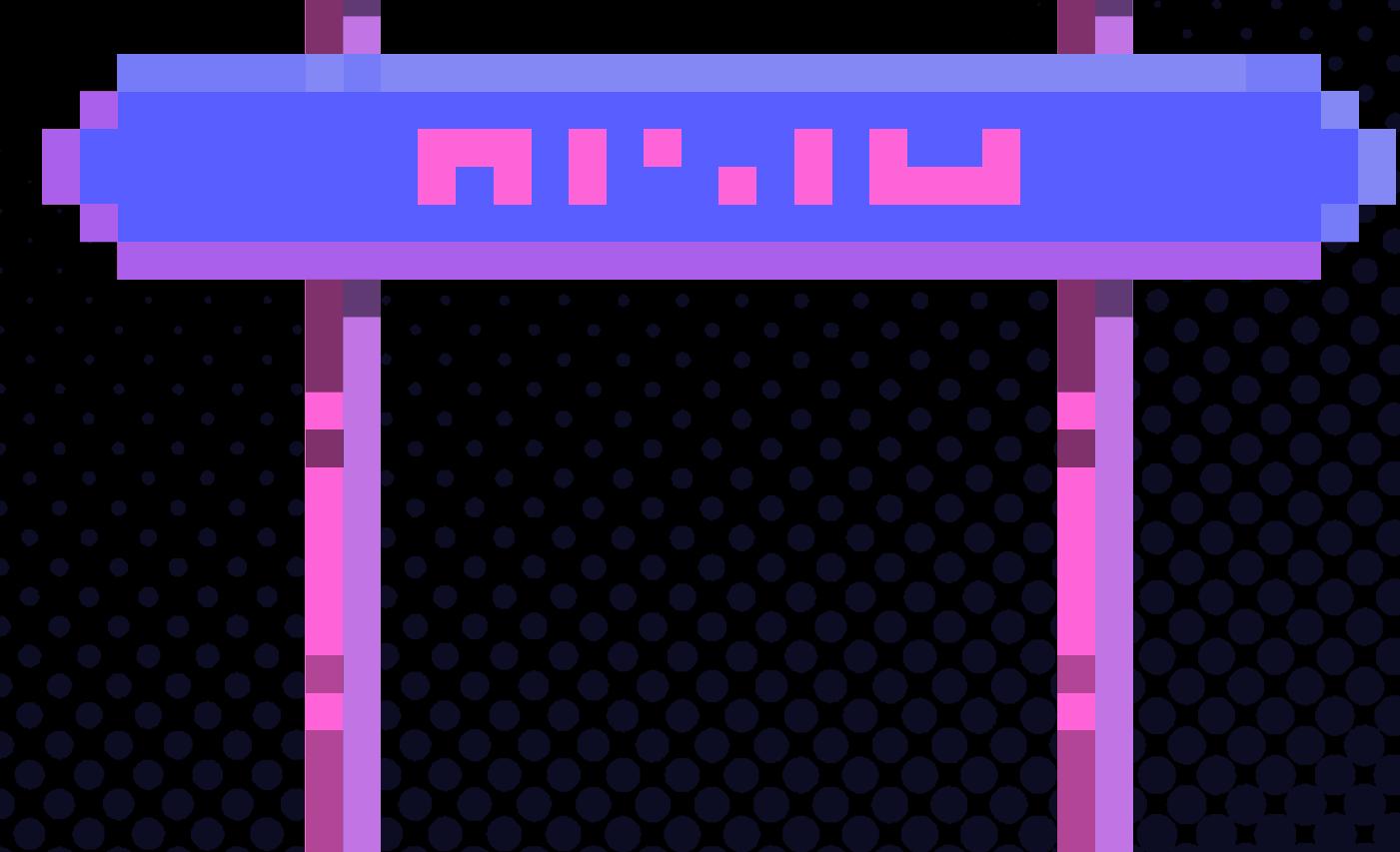
A screenshot of a terminal window titled "Windows PowerShell". The window has a blue header bar with tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, and TERMINAL. The TERMINAL tab is selected. The terminal shows the following text:

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\ZinAn> cd "c:\Users\ZinAn\Desktop\Java\" ; if ($?) { javac test.java } ; if ($?) { java test
javac : The term 'javac' is not recognized as the name of a cmdlet, function, script file, or operable p
that the path is correct and try again.
At line:1 char:47
+ cd "c:\Users\ZinAn\Desktop\Java\" ; if ($?) { javac test.java } ; if ...
+
+ CategoryInfo          : ObjectNotFound: (javac:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\Users\ZinAn\Desktop\Java>
```



MENU

01

07

12

ELIZA



WORKED ON

LESSONS
LEARNED

- ◆ Game animation
- ◆ Authentication
- ◆ Game flow
- ◆ Settings

Challenges faced (solutions):

- ◆ jump (gravity)
- ◆ password safety (sha-256)
- ◆ back button (stack)
- ◆ changing theme for all scenes in real time
(setUI in each controller and have the controllers in MainMenu)



MENU

01

07

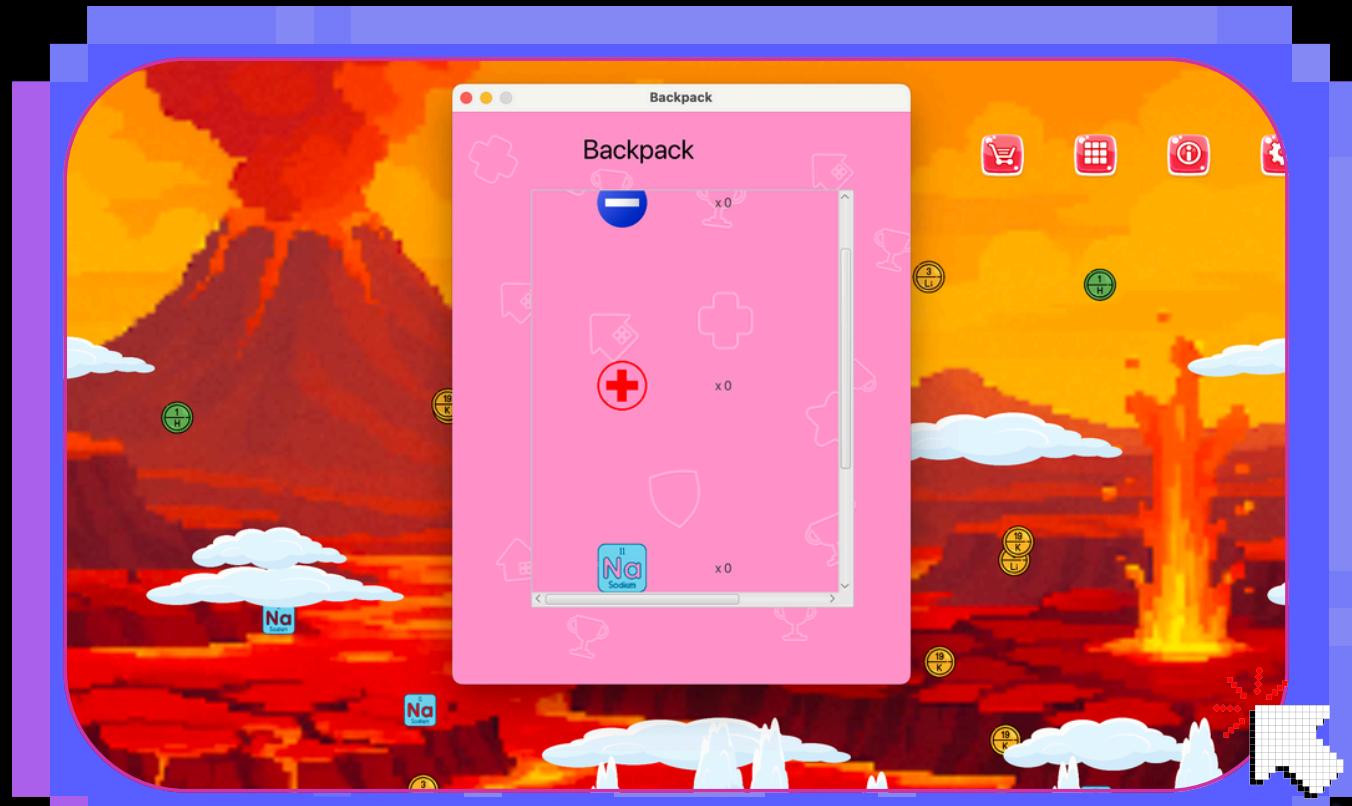
12

SOFIA



WORKED ON

- ◆ User Backpack
- ◆ Level Checkers: Building an Atom,
Neutralization Reaction
- ◆ Game Over
- ◆ Data Saving



AI.DU

MENU

01

07

12

SOFIA



LESSONS LEARNED

Challenges faced (solutions):

- ❖ merging issues (manual debugging)
- ❖ draggability of elements to the screen (used a DragBoard)
- ❖ sharing a common backpack between different scenes (create a static reference in the controller in control of switching between scenes)
- ❖ Push Fails Github/Authentication (SSH key)
Layout problems



