

ProgGames User Documentation Manual:

Hardware and Software Requirements:

Computer Operating System: Windows 7, 8.1, and 10

Must have at least one windows computer to use the application.

Files Required and Installation Guide:

All files needed to run the application are included in the submitted project *Code* folder's sub-directory named 'Project Executable'.

Dissertation

Code

code

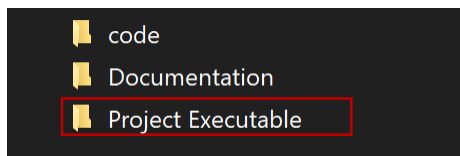
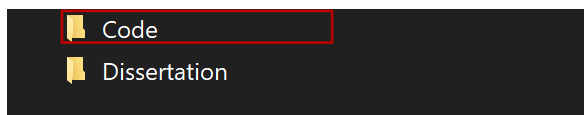
Documentation

Project Executable








Once this directory is located, unzip the folder and all the files needed will be accessible from there.

Quick Start Guide:

1. Open the project folder and locate the 'Project Executable' sub-directory following the images below.



2. Open the Game Executable from the Project Executable folder.

	MonoBleedingEdge	8/6/2019 2:24 PM	File folder	
	ProgGames_Data	8/24/2019 4:35 PM	File folder	
	ProgGames	8/5/2019 9:51 AM	SQLite database	32 KB
	ProgGames	7/9/2019 9:13 AM	Application	636 KB
	sqlite3.dll	7/24/2019 7:05 PM	Application extension	1,858 KB
	UnityCrashHandler64	7/9/2019 9:40 AM	Application	1,421 KB
	UnityPlayer.dll	7/9/2019 9:40 AM	Application extension	40,035 KB

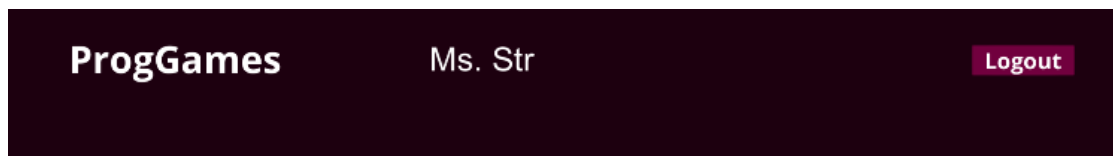
3. Once the game loads, you can then login with the following credentials.

- a. Student:
 - i. Username: *123*
 - ii. Password: *password*
- b. Teacher:
 - i. Username: *str1*
 - ii. Password: *password*

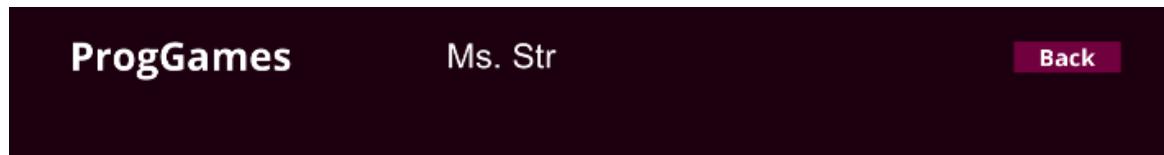
Teacher Navigation:

If logged in as a Teacher, the following is the workflow to view student's progress:

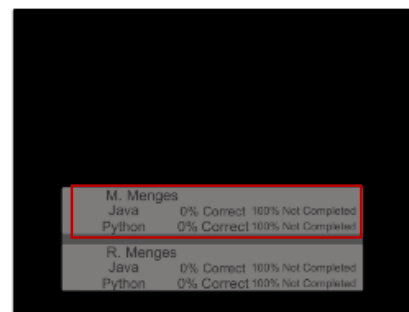
1. Select 'Student Progress'



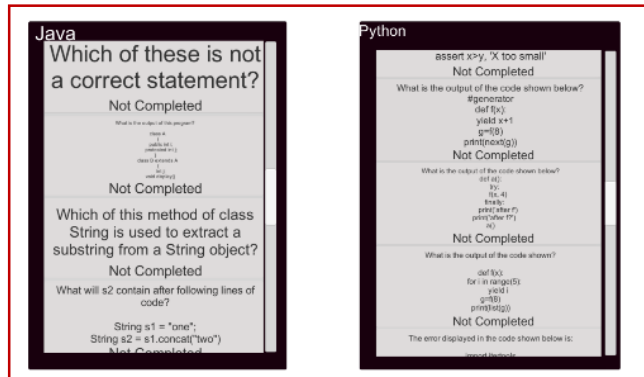
2. Select a student from the list



Select a student from the list to see their progress of your curriculum.

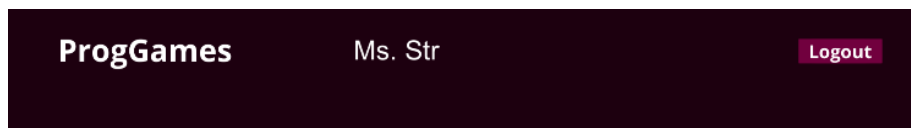


3. Scroll through the curriculum to see the student's progress

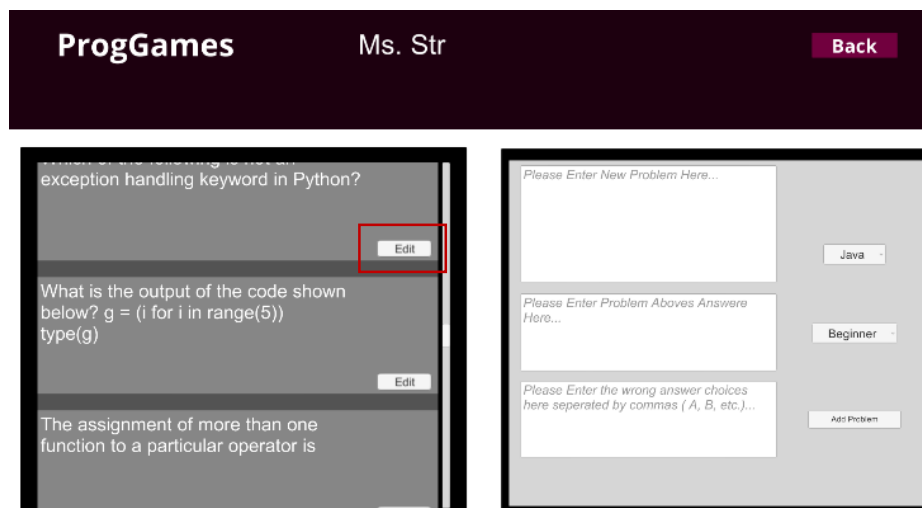


The following is the work flow to edit curriculum:

1. Select 'Edit Curriculum'



2. Select 'Edit' for the question you would like to edit



3. Edit the question and answer and when done select 'Done'.

ProgGamesMs. StrBack

exception h

What is the
below? g =
type(g)

The assign
function to

Which of the following is not an
exception handling keyword in Python?

accept

Done

The Following is the work flow to add new curriculum:

1. Select 'Edit Curriculum'

ProgGamesMs. StrLogout

Student Progress

Edit Curriculum

2. Enter the new question, it's answer, difficulty, programming language, and 3 other wrong answers. Once complete select 'Add Problem' to save.

ProgGames Ms. Str **Back**

exception handling keyword in Python?

Edit

What is the output of the code shown below? `g = (i for i in range(5))`
`type(g)`

Edit

The assignment of more than one function to a particular operator is

Please Enter New Problem Here...

Please Enter Problem Above's Answer Here...

Please Enter the wrong answer choices here seperated by commas (A, B, etc.)...

Java

Beginner

Add Problem

Student Navigation:

When logged in as a student, it has the following workflow:

ProgGames R. Menges **Logout**

Please select the following options to start the game:

Programming Language:

Python Java

Difficulty:

Beginner Intermediate Advanced

Solo or 2-Player

1 One Player Two Player 2

3 Instructions

4 Credits

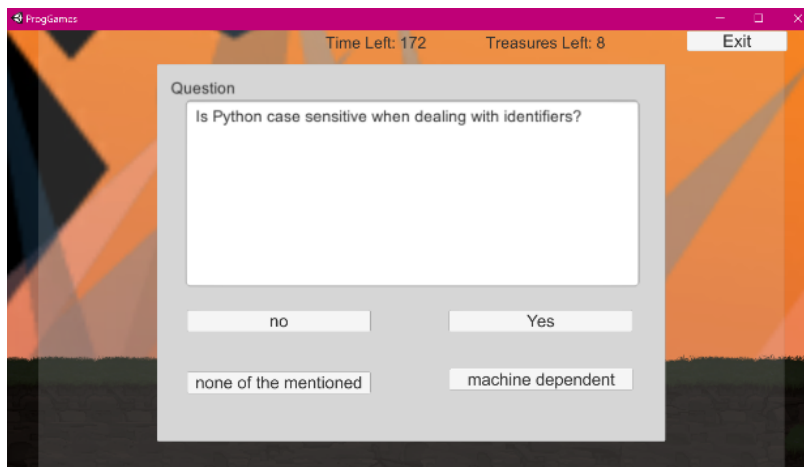
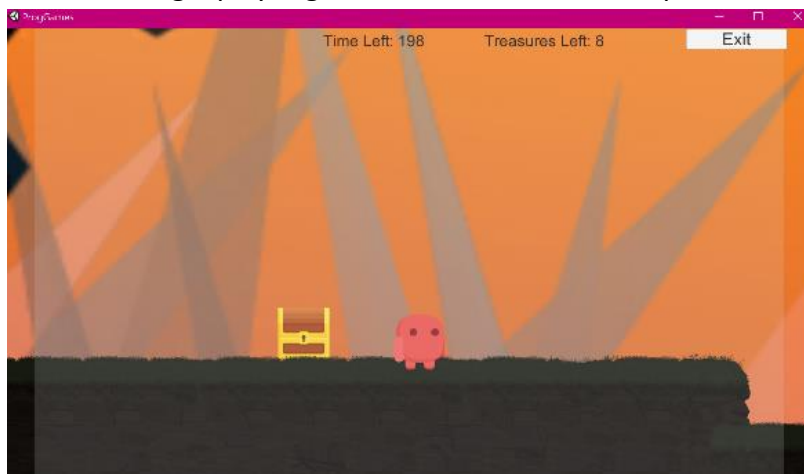
Game Background

You've been stranded on in an unknown land and the only way to get home is to gather the parts for your broken down space ship. These parts were scattered throughout this unknown land and in order to fix them, you must use your programming knowledge to fix them.

Broken parts are located in treasure chests.
You've only got 2 minutes to find all the parts.

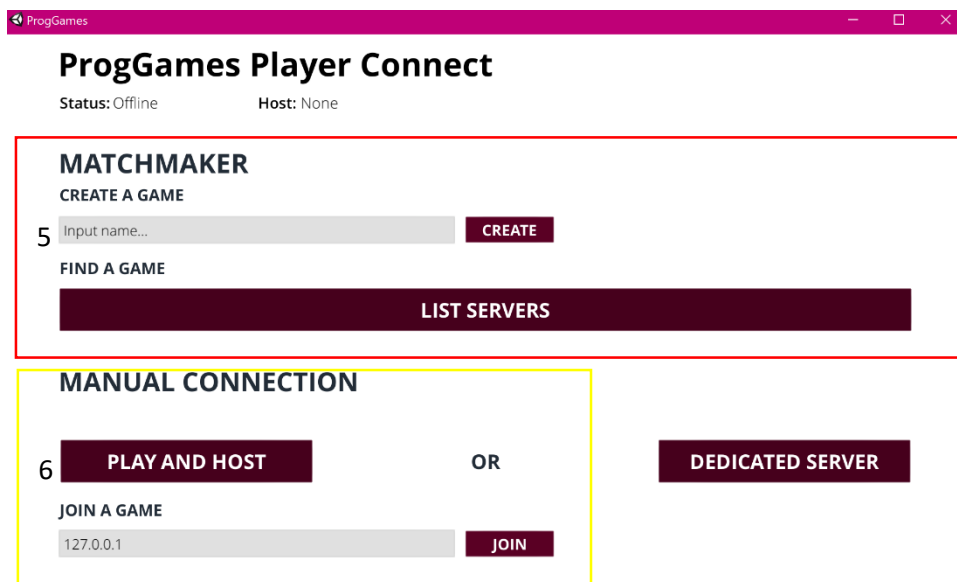
Be careful though, there may be someone else here with you stealing the parts you need. Make sure you get them before they do!

1. This is the single player game view, once selected option 1 in the image above.



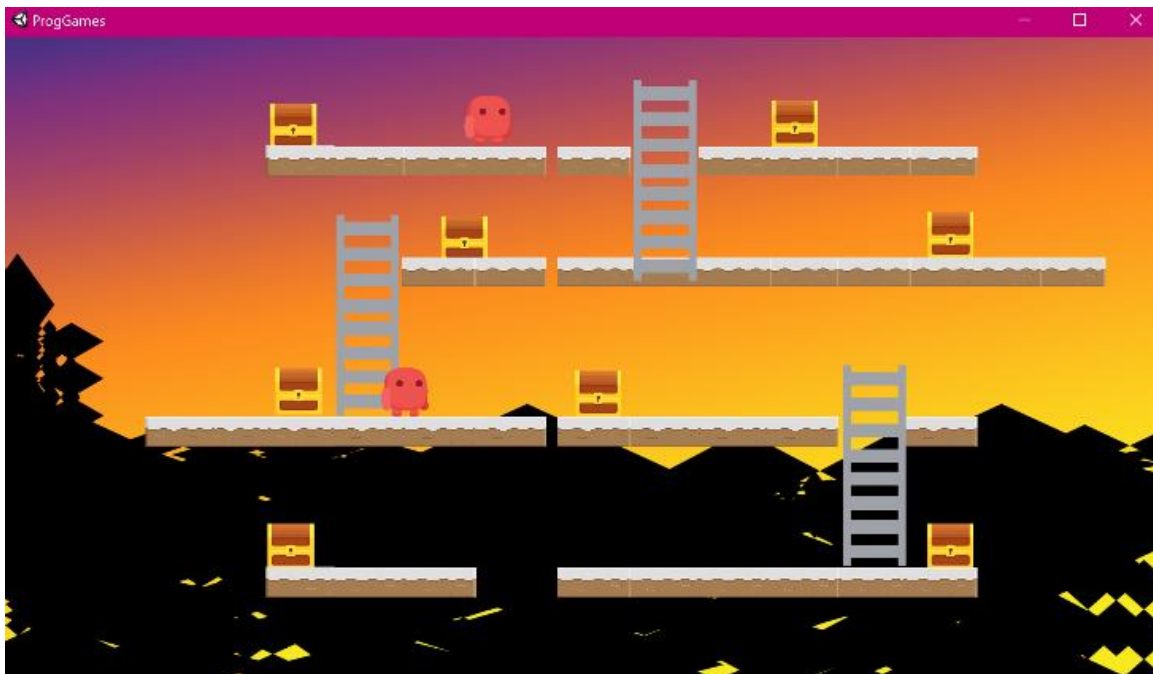
2. If option 2 is selected from the student's title page, a network lobby is displayed.

The following information is required to start a multiplayer game.

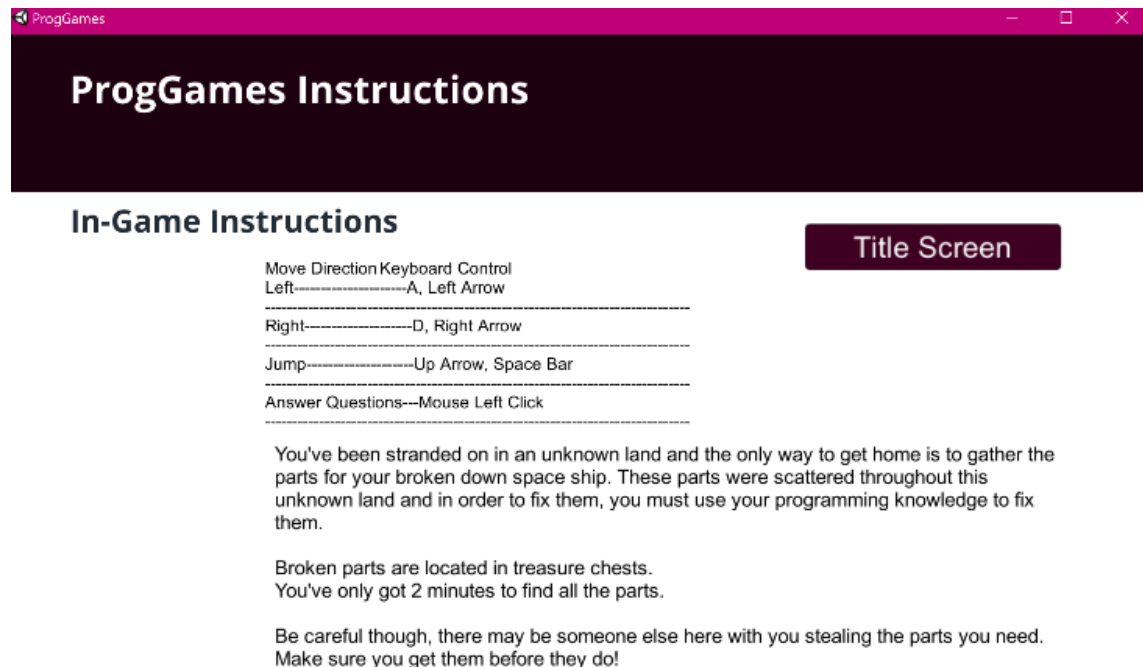


- i. Within the Matchmaker section, or section 5 in the image above, One player must enter a name and choose create to initialize a game server. The other player must then choose 'List Servers' to find the game the other player created by it's name. They must then both join the game before a countdown will start and move on to the following screen.
- j. Within the Play and Host section, or section 6 in the image above, One player must choose "Play and Host". The other player must then enter the other player's IP address to connect to their game. However, if the game is playing on the same computer, then the IP address in the input will work automatically. If it is empty, then enter: 127.0.0.1 to join the local computer's game.

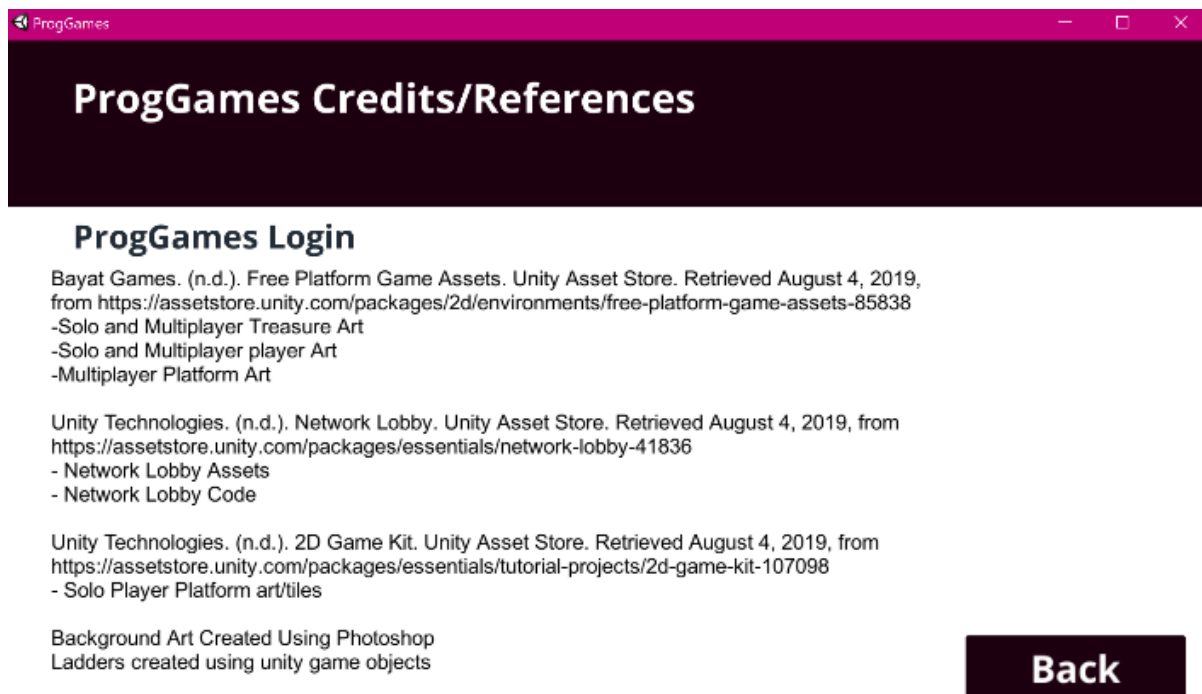
Once either one of the above situations are met, each player must join the game before a countdown will start and move on to the following screen.



3. Section 3 from the Student's title screen takes you to the Instructions screen as seen below.



4. Section 4 from the Student's title screen takes you to the Credits screen as seen below



In-Game Controls:

Move Direction	Keyboard Control
Left	A, Left Arrow
Right	D, Right Arrow
Jump	Up Arrow, Space Bar
Answer Questions	Mouse Left Click

How to Close the Application:

To close the application, simply use the close icon in the top right corner (pictured below).

Errors that you may encounter:*Multiplayer Client Crash:*

Problem: When playing through the multiplayer version, if the client side does not detect and inputs for a set amount of time, it will disconnect. This will disconnect only the client, but not the host.

Solution: Simply restart the application and start the game over.

Multiplayer Connect with University Computers:

When utilizing the universities computers, the application of connecting through the network does not function.

Solution: The only way to view the multiplayer mode using the universities network is to have administrative access or to open the application twice, leaving you with two windows. You can then login using the same login and, once you get to the Network lobby scene, choose the 'play and host' option with one of the windows and 'join' with the other window. This will connect the games on the same computer screen for viewing.

Resolution Issues: When testing the application on larger resolution screens, the resolution for some of the information becomes 'fuzzy'.

Solution: The best way I have found to deal with it is to maximize the window.

In-Game References

Bayat Games. (n.d.). Free Platform Game Assets. Unity Asset Store. Retrieved August 4, 2019, from <https://assetstore.unity.com/packages/2d/environments/free-platform-game-assets-85838>

- Solo and Multiplayer Treasure Art
- Solo and Multiplayer Art
- Multiplayer Platform Art

Unity Technologies. (n.d.). Network Lobby. Unity Asset Store. Retrieved August 4, 2019, from <https://assetstore.unity.com/packages/essentials/network-lobby-41836>

- Network Lobby Assets
- Network Lobby Code

Unity Technologies. (n.d.). 2D Game Kit. Unity Asset Store. Retrieved August 4, 2019, from <https://assetstore.unity.com/packages/essentials/tutorial-projects/2d-game-kit-107098>

- Solo Player Platform art/tiles

Background Art Created Using Photoshop

Ladders created using unity game objects