**Casino Simulation**

**Tutorial / User Manual**

**Applied Programming Concepts (ELEC-3225-01)**

**July 24th, 2022**

**Tutorial**

**Installation:**

1. Go to <https://github.com/Wentworth-applied-programming-concept/casino>
2. Make sure you’re on the main branch – and click on the green “Code” button

A screenshot of a computer

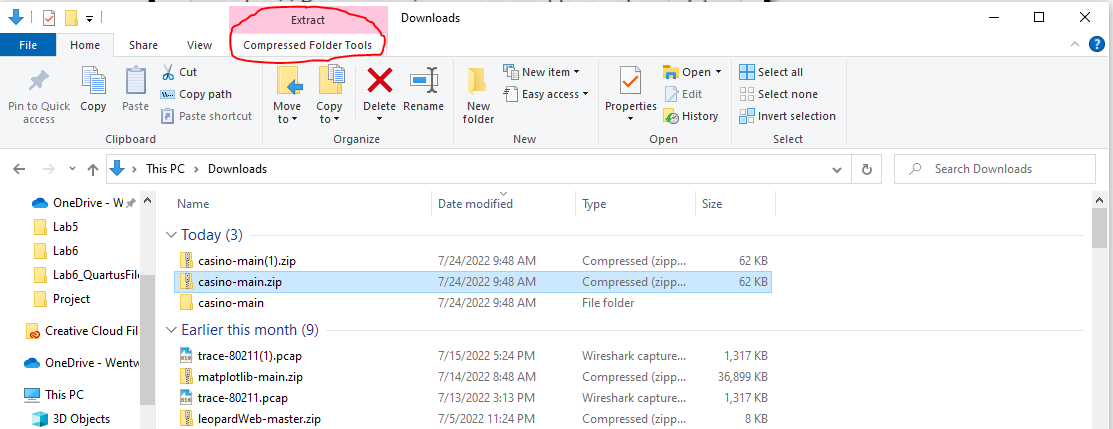
Description automatically generated

1. Download zipped folder of the program

Graphical user interface, text, application, email

Description automatically generated

1. Unzip the folder. You can use Microsoft file explorer.



1. You will need to know the directory of the folder which contains all the files to run the program, so take note of it.

Graphical user interface, application

Description automatically generated

1. Now, you have all the program files. Our program uses a couple of Python packages such as peewee and matplotlib. You can use pip to install these packages. Starting with Python 3.4, pip is included by default with the python binary installers.
   1. To check your version of python, open the windows command line by typing “cmd” into the windows search bar.
   2. Type “python --version” into the command line to check which version of python you have

Text

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1. If you have version older than Python 3.4, install the latest version of Python from <https://www.python.org/downloads/>
2. To install the necessary packages to use the program, you must first navigate to the directory where the casino sim is stored.
   1. Use the command “cd <directory\_name>” to navigate to the directory where you extracted the application to in step 5.
      1. You can find this address by right-clicking on the folder in file explorer and selecting “copy address”

Graphical user interface, application

Description automatically generated

* 1. Once in the directory, use the command “pip install -r requirements.txt” to install all of the packages necessary for the application

Text

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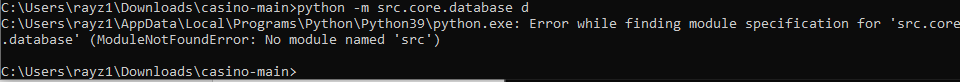
Note: In the above screenshot all of the requisite packages are already installed so the output states “requirement already satisfied”, but you should see outputs displaying the packages being installed.

**Running The Program**

1. Now, you should have everything needed to run the application. To run the program, we must first navigate to the directory where the casino sim is installed. Now you can run the program. Run the command “python -m src.ui.ui” to start the program



* + 1. Note: if you receive an error like the one below, you are in the wrong directory. I found that my casino-main folder in downloads had another “casino-main” folder. Simply cd into that.





1. You should see a login screen, by default you can log in as a player (username: *bobby123*, password: *default*) and an admin (username: *admin*, password: *admin*).

Graphical user interface

Description automatically generated with medium confidence

**User Manual**

1. If you login as a player, you will be presented with the player view of the system. The main menu displays your username, account balance, and options to change attributes about your account. There is a dropdown menu which allows you to play games, check your account’s game history, generate graphs of game history, and logout.

Graphical user interface

Description automatically generated with medium confidence

1. If you login as an admin, you will be presented with the management view of the system. The main view displays the casino’s all-time profit – as well as all-time profits from each individual game. The main menu has locations where the admin can change the difficulty of the games. This is a scalar value which will either impact odds (such as in slots) or impact payout (such as in blackjack).

Graphical user interface

Description automatically generated with medium confidence

* 1. There is a dropdown menu which has several other views of the system.
  2. Inside *player view* and *admin view*, admins can add/remove users, as well as update their attributes. To update attributes – select the user you wish to change from the table, enter attributes into the boxes below and select update user.
  3. Inside of *game view*, admins can search by parameters by selecting a parameter from the dropdown menu below and typing something into the search box.

**Launching the Games**

1. Once in the *player view*, select *Menu -> Launch Games* from the drop down, then select the game to launch by clicking the corresponding ‘Play’ buttons. The games will launch in the command window.

Graphical user interface, application

Description automatically generated

**Games Overview**

1. Slots
   1. Slots has an intuitive GUI which shows the user balance – and an area where you can change your bet amount. You can change your bet amount on increments of $5 by using the + or – buttons. Once you have made your bet amount, use the spin button to generate a new slots roll. If 3 images are adjacent to each other, the player wins.
2. Roulette
   1. To play roulette, you must make a bet. When you launch the game, you will be presented with 5 different bets you can make. Once you make a selection, you’ll be prompted with how much you’d like to wager. Some bets will ask for some additional information.

A picture containing roulette

Description automatically generated

1. Blackjack
   1. Blackjack costs $100 to play. The objective is to beat the dealer by getting a count as close to 21 as possible, without going over 21. Face cards are worth 10. You are dealt two cards to start with. You are also displayed the dealer’s face card. They have another card which the value is not revealed.
      1. The game will then prompt you to ask if you’d like an additional card dealt. You can enter anything for another card or type q to stop there.
2. Craps
   1. You must make a bet on the outcome of two die to play craps. On the come-out roll – you can only bet for five numbers: 2, 3, 7, 11, or 12. You can bet on just one number or multiple numbers on a single roll. For example – you could place $100 on 2 and $300 on 7 in the same turn if you wanted.
   2. On die rolls after the come-out, you can make bets on any numbers 2-12.
3. Powerball
   1. It costs $5 to buy a Powerball ticket. You are given 5 random numbers. 6 random numbers are generated as the Powerball numbers. You’re rewarded money depending on how many numbers match / if the Powerball matches.