80 python projects for beginners

Start date: 01 -01-2020

End date : 31 -12-2020

Project 1:

How to calculate The execution time of a python program?

Project 2:

Write a program to convert audio to text.

Project 3:

Write a program to convert text to audio.

Project 4

Write a program to create stopwatch in python.

Project 5:

Write a program to create a countdown in python.

Project 7:

Write a program to check whether a file/directory exist.

Project 8:

Write a program to check internet connection in python.

Project 9:

Write a python program to download a single video from youtube.

Project 10:

Write a python program to convert a video excerpt into a GIF.

Project 11:

Write a python program to unzip/ unrar a file.

Project 12:

Write a program to create a barcode.

Project 13:

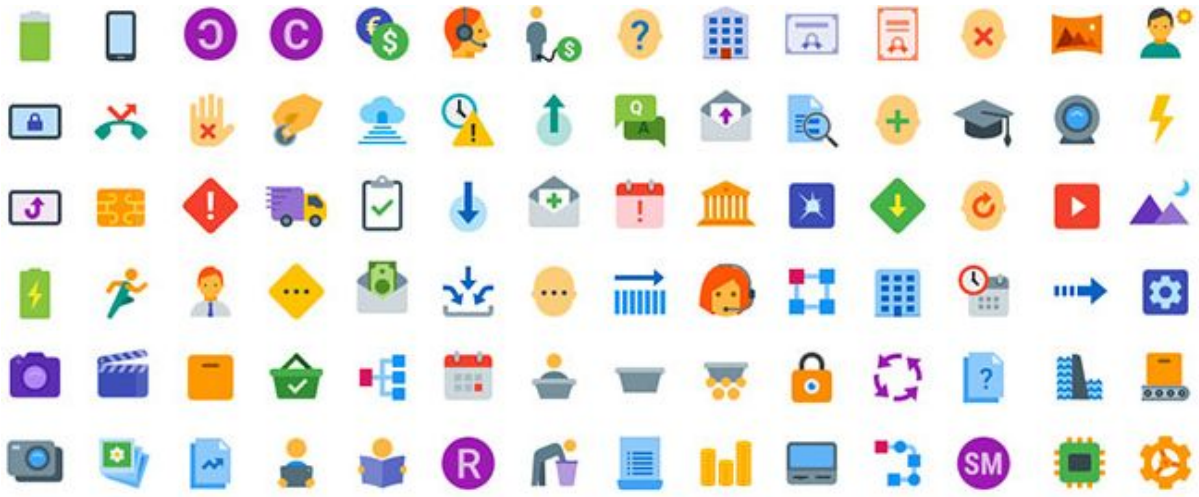
Write a python program to find all files and open them with a pyqt5/tkinter GUI.

Project 14:

Write a python program to archive files.

Project 15:

Divide the image below into multiple images.



Project 16:

Write a python program to check current CPU temperature or average temperature in given time period

Project 17:

Create a digital clock

Project 18:

Create a GUI Multiplication Times in python

Project 19:

Create a music player

Project 20:

Create a calculator

Project 21:

Write a program to convert a reading book into an audio book

Project 22:

How to make phone book in python using GUI

Project 23:

Write a program to extract tables from PDF files

Project 24:

Write a program to create a piano

Project 25:

Write a program to create a simple text editor

Project 26:

Write a program to create a simple music player

Project 27:

Write a program to create a simple phone book

Project 28:

Write a program to tracks Amazon prices

Project 29:

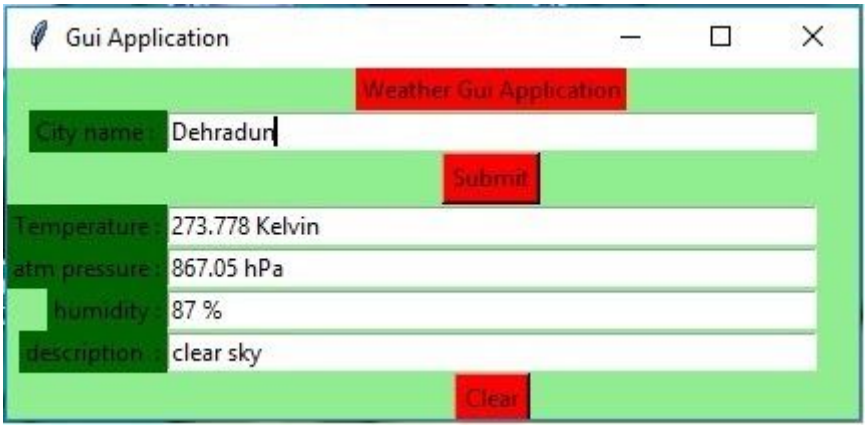
Write a program to create a simple cafe billing

Project 30:

Write a program to create a simple quiz app

Project 31:

Build a simple weather application



Project 32:

Write a program to record sound with python.

Project 33:

Write a program to convert sound files to a range of different audio formats.

Project 34:

Write a currency converter using tkinter or pyqt5.

Project 35:

Create a graphical register and login system in python using tkinter.

Project 36:

Create a graphical lottery numbers generator.

Project 37:

Create an analog clock in python.

Project 38:

Create a GUI onscreen keyboard in python.

Project 39:

Create a GUI restaurant management system

Project 40:

Create a GUI hospital management system

Project 41:

Write a program to convert an image into text

Project 42:

Write a graphical program to send email with or without attachment.

Project 43:

Write a Face Detection program in Python Using a Webcam.

Project 44:

Create a graphical file transfer program in python.

Project 45:

Create a graphical program to download FTP files

Project 46:

Write a Python program to extract the information such as title, duration, channel, url, views, description, etc. of youtube trending videos

Project 47:

Write a Python program to extract the Price, Name, and Rating of Laptops from Filpkart website.

Project 48:

Write a Python program for downloading images from a Google Search.

Project 49:

Create a file manager in python

Project 50:

Create a Port Scanner in python

Project 51:

Create a Twitter Bot in Python.

Project 52:

Write a graphical program to convert video to mp3.

Project 53:

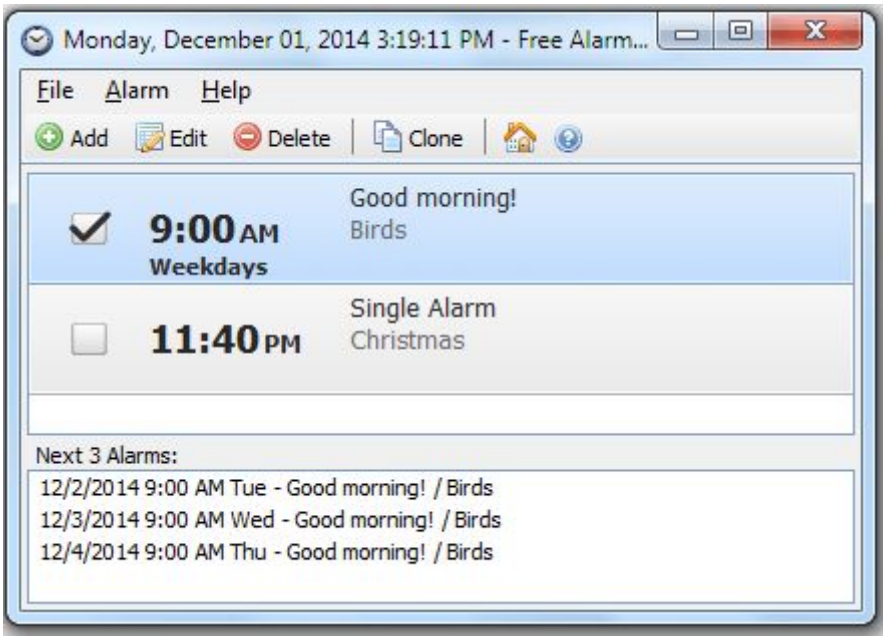
Write Tic Tac Toe game program in python

Project 54:
Build an Interactive English Dictionary in python

Project 55:
Create a simple presentation program in python.

Project 56:
Create a web browser in python.

Project 57:
Create an alarm clock



Project 58:
Create a file manager tool

Project 58:
Create a Contact Book Tool

Project 59:
Create a site Connectivity Checker

Project 60:
Create a QR code generator

Project 61:
Create a barcode scanner

Project 62:

Create a json formater

Project 63:

Create a Json validator

Project 64:

Create a JSON to CSV converter

Project 65:

Create a credit card number validator

Project 66:

Write a program to decode /encode an Image

Project 67:

Create a url shorter

Project 68:

Write a graphical program to detect language

Project 69:

Create Dodger game.

1. Dodger

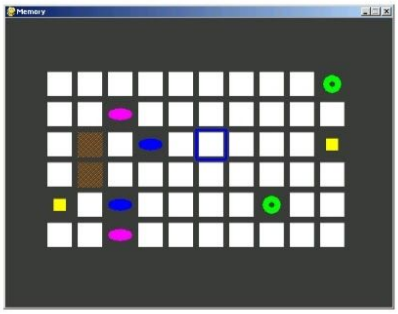
Description: Several bad guys fall from the top of the screen, and the user must avoid them. The player can be controlled with the arrow keys or more directly with the mouse. The longer the player lasts without being hit, the higher the score.

Variations: Have enemies fall at different rates and be different sizes. Have enemies fall from more than one side of the game. Have power up pickups that grant invulnerability for a while, slow down bad guys, give the player a temporary "reverse bad guys" power, etc.

Project 70:

Create Memory Puzzle game.

2. Memory Puzzle



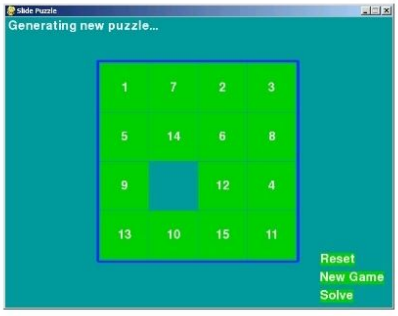
Description: A board full of overturned cards. There is a pair for each card. The player flips over two cards. If they match, then they stay overturned. Otherwise they flip back. The player needs to overturn all the cards in the fewest moves to win.

Variations: Provide "hints" in the form of four possible matching cards after the player flips the first one. Or, quickly overturn groups of cards at the beginning of the game.

Project 71:

Create Sliding Puzzle game

3. Sliding Puzzle



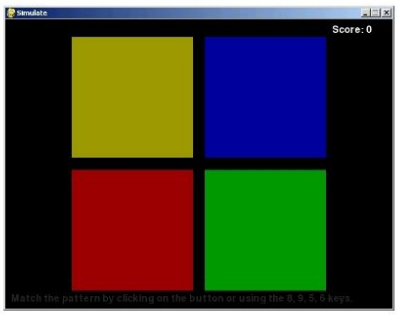
Description: A 4x4 board of numbered tiles has one missing space and is randomly set up. To win the game, the player must slide tiles over to put the tiles back in order.

Variants: Instead of numbers, you can have a scrambled picture cut up into 4x4 tiles.

Project 71:

Create Simon game.

4. Simon



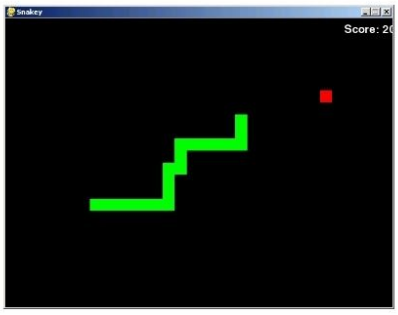
Description: Four colored buttons light up in a specific pattern. After displaying the pattern, the player must repeat the pattern by clicking the buttons in proper order. The pattern gets longer each time the player completes the pattern. If the player presses a wrong button, the game ends.

Variant: A nine-button version can add challenge to this game (but more than that would probably just be tedious.)

Project 72:

Create Nibbles game

5. Nibbles



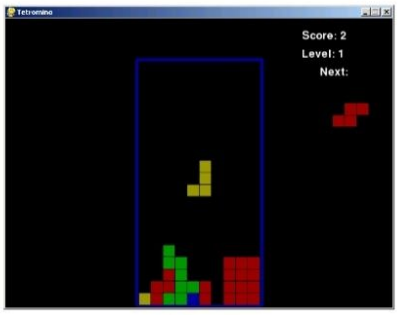
Description: A worm or snake constantly moves around the board. The player controls the direction the "head" of the worm moves, and the worm must try to eat apples that randomly appear. Eating an apply causes the worm to grow in length. The game ends if the worm crashes into the edge of the board or into itself.

Variants: Add walls to the level, instead of just a blank rectangle. Add power ups that the worm can pick up. Add bad guys that move around the board that the worm must avoid. Have two worms that the player must control simultaenously. Tron (see below) is a two-player variant of this game.

Project 74

Create Tetris game

6. Tetris



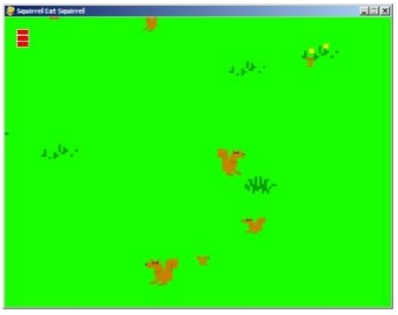
Description: Shapes made up of four blocks fall from the top of the board. The player must rotate and place them to create full rows with no gaps. When a full row is made, the blocks in that row disappear and the blocks above it move down. The game ends if the board fills up.

Variant: Several Tetris variants are listed on Wikipedia.

Project 75:

Create Katamari Damacy game

7. Katamari Damacy



Description: The original Katamari Damacy game was in a 3d world, but a 2d version is also easy to implement. The player controls a small object in a world of different-sized objects. Touching the smaller objects grows the player, touching the larger objects damages or shrinks the player. The player wins when they reach a certain size.

Project 76:

Create Sokoban game

8. Sokoban

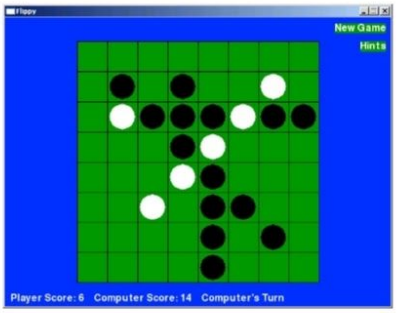
Description: The player is in a level with objects that need to be pushed over goals. The objects can only be pushed, they can't be pulled. This game does require some effort to design levels for, but Sokoban levels have been designed by others and published on the web.

Variant: Add all sorts of level gimmicks: teleport tiles, conveyor belts, buttons that open doors/bridges, buttons that need an object left on them to keep a door open.

Project 77:

Create Othello game

9. Othello



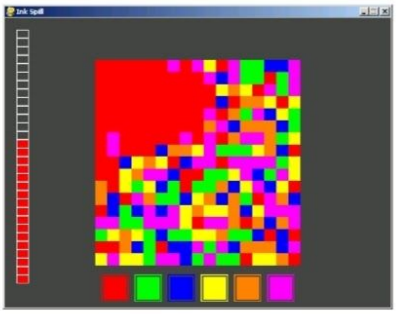
Description: On a grid, a black and white player places tiles of their color on the board. The opponent's tiles between the newly placed tile and that player's existing tiles are flipped to become the color of the player's tiles. The game ends when the board fills up and the player with the most tiles of their color wins.

Variant: Three player Othello with three different colors. Non-square boards.

Project 78:

Create Flood It game

10. Flood It



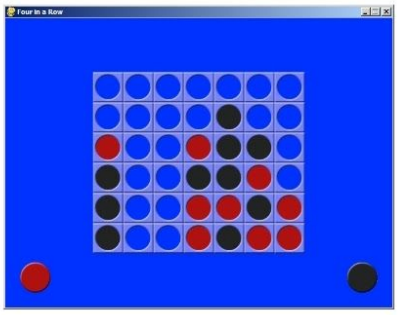
Description: A grid of six colors of tiles starts off randomly. The player can do a "flood fill" on the top left tile, changing the color of any adjacent tiles of thesame color. The player wins if they are able to make the entire board a single color within a certain number of moves.

Variants: Power ups gained when a certain tile is changed.

Project 79:

Create Connect Four game

11. Connect Four



Description: Two players of different colors drop their tokens on an upright board. The player to make four tokens in a row, column, or diagonal wins. Creating an AI for this requires a simple minimax algorithm.

Variant: Different board sizes. Walls inside the board that appear when the spaces beneath them are filled.

Project 80:

Create Bejeweled game

12. Bejeweled

Description: The board is filled with seven different types of jewels. The player can swap two adjacent jewels to form a three-in-a-row, causing the jewels to disappear and the jewels on top of them to fall down. Creating chain reactions gives bonus points.

Variant: Different power ups for matching a particular jewel. Be able to sometimes swap jewels that are not adjacent to each other. Timed games.