Commit Report
Repository: crossword_puzzle

Owner: tomasvana10

Authors: All

Branch: main

Newest n commits: None | Oldest n commits: 10

Sorting: Oldest to newest

Commit count: 10

`49ae1c5` | By tomasv (tomasvana@yahoo.com) | At 09/01/2024

Initial commit

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`c33c51a` | By tomasv (tomasvana@yahoo.com) | At 11/01/2024

Made layout of program; began on crossword generator

Defined the `Directions` class to specify the value of the "across" and "down" orientations of words in the crossword. The `Style` class specifies what character represents an empty cell. The `Restrictions` class will eventually contain a regex that removes all non-language characters from a string to ensure the crossword contains no symbols, punctuation, whitespace, etc.

Additionally, 4 errors were defined as these will likely need to be handled in the future.

The `Crossword` class is still empty.

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`10a2378` | By tomasv (tomasvana@yahoo.com) | At 11/01/2024

Began developing Crossword class

Added error checking in the constructor and added `_format_definitions` and `_find_dimensions`. The definitions formatter uses a regex added to `Restrictions` in this commit that removes all non-language characters.

Added error class `EscapeCharacterInWord` to provide appropriate error messages to user input that contains '/' as regex cannot remove it.

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```
687cb2a | By tomasv (tomasvana@yahoo.com) | At 11/01/2024
```

Added 3 methods in the Crossword class

Added `_initialise_crossword_grid` to to assign self.grid to a two-dimensional array of `Style.EMPTY` characters.

Added `_place_word` to place a word at the given coordinates and orientation.

Added `_find_intersections` to determine how many intersections a word has with other words (at a given position and orientation) in self.grid.

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```
c31d931 | By tomasv (tomasvana@yahoo.com) | At 11/01/2024
```

Added 1 method to the Crossword class

Added `_can_word_be_inserted` which uses conditional statements to ensure a word can be place at a given position and orientation in `self.grid`.

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87d57f9 | By tomasv (tomasvana@yahoo.com) | At 11/01/2024

Added 7 methods to the Crossword class

Added the dunder `str` method to represent the class as a stringwhen printed

Added `generate` which is called on an instance of the calss to create and populate `self.grid`.

Added `_find_first_word_placement` to determine the middle indexes of `self.grid` for which to place the first word at.

Added `_find_insertion_coords` to determine all possible placements for a given word.

Added `_add_clue` and `_add_data` which append important information for all the words inserted to the crossword (orientation, intersections, position). `_add_clue` is friendly for the user to view and is displayed with by printing an instance of the Crossword class.

Added `_populate_grid` to find the best placement for a word based on intersections (using `_find_insertion_coords`). Words with no intersections are reinserted when `_populate_grid` is recursed. This function also appends placement information to self.clues and self.data (using `_add_clue` and `_add_data`.

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5cdca5d | By tomasv (tomasvana@yahoo.com) | At 11/01/2024

Reorganised file structure slighty

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021130e | By tomasv (tomasvana@yahoo.com) | At 11/01/2024

Added intrinsic documentation and finalised the Crossword class

Added extensive intrinsic documentation including docstrings for `Crossword` and its methods.

Added `_prune_placements_for_readability` which eliminates word placements that are directly adjacent to another word. This change drastically improves the overall appearance of the crossword.

A minor change was made in `_populate_grid` to accompany for the new method that was introduced.

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```
dff2bfd | By tomasv (tomasvana@yahoo.com) | At 11/01/2024
```

Added 3 static methods to the CrosswordHelper class

The `CrosswordHelper` class features 3 static methods that assist the `Crossword` class and the user

`find_best_crossword` generates a large sum of crosswords depending on the amount of words in the crossword (determined by loading `attempts.json` into a dictionary). This function does not require the user to call `generate()` and instead returns the crossword object directly.

`load_definitions` returns a specified crossword file JSON into a dictionary that is used by Crossword to insert words into `self.grid`.

`_load_attempts` returns the `attempts.json` file which relates the amount of words a crossword contains to the appropriate amount of iterations that `find_best_crossword` should run for before returning the best found crossword.

Driver code at the bottom of the script was added to showcase an example usage of `cword_gen.py`.

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```
1aa7005 | By tomasv (tomasvana@yahoo.com) | At 11/01/2024
```

Added Paths class

The `Paths` class defines the absolute paths to `attempts_db.json` and the `cwords` directory.

Reworded some parts of the program and added a little intrinsic documentation.

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