

Brief Report

Description of every method and its functionality

build_kb: method to write the database it basically takes 2 inputs from the user the first one is the word and the second one is the category of the word. When the user inputs done. it ends up the building phase and shows him that the building phase is done(msg).

correct_letters(X,Y,C):change words to 2 lists and checks if the word contains the letters.

correct_positions(X,Y,C): change words to 2 lists and checks the correct positions of the letters by calling its helper method correct positions which checks if the head of the first list equals to the second one and so on.

is_category(X): gets the category.

categories(L): display all the available categories as a list for the user.

available_length(L,C): checks the available length of the word in the category.

categorycheck: checks if the chosen category is available in the list of all categories if not print to the user that the category does not exist. then it proceeds to lengthcheck(X).

lengthcheck(X): it checks if the chosen length is available in the chosen category and print back to the user whether it's available or not, if it's available it will proceed with the guesses.

Check_word(Z,W,G): the method checks if the input length is equal to the chosen length or not.

main(G,W): method that takes number of guesses and a word. and checks if this word matches the initial word, it print back to the user the number of guesses and a message to tell him that he won.

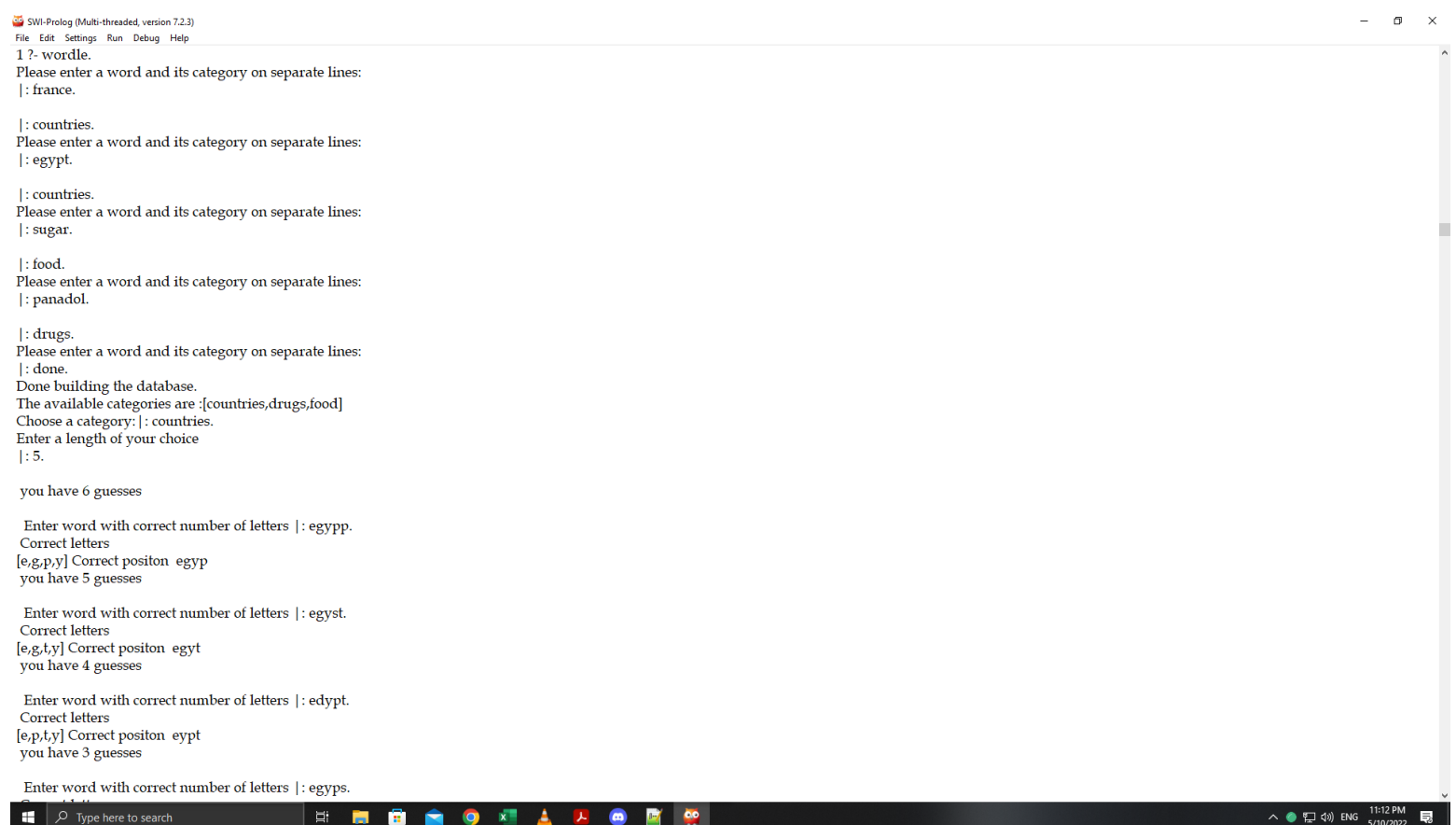
if he didn't get the word from the first try it will keep print. the number of available guesses which will decrease every time by 1 then it will show him the correct letters using the correct letters method above. and will show him if there's a correct letter in a correct position using the above correct position method.

please note that in this method the user should input a word with the length as same as the chosen length if not it will display to him to choose a word with correct number of chars.

if the user failed to get the correct word and used all his guesses($g=0$) the method will return "you lost to the user".

wordle: the main method or the game or the engine of the game where we call the database building and the categorycheck method which will call the main method which has all the game logic.

Losing scenario:



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SWI-Prolog (Multi-threaded, version 7.2.3)
File Edit Settings Run Debug Help
1 ?- wordle.
Please enter a word and its category on separate lines:
| : france.

| : countries.
Please enter a word and its category on separate lines:
| : egypt.

| : countries.
Please enter a word and its category on separate lines:
| : sugar.

| : food.
Please enter a word and its category on separate lines:
| : panadol.

| : drugs.
Please enter a word and its category on separate lines:
| : done.
Done building the database.
The available categories are :[countries,drugs,food]
Choose a category: | : countries.
Enter a length of your choice
| : 5.

you have 6 guesses

Enter word with correct number of letters | : egyp.
Correct letters
[e,g,p,y] Correct positon egyp
you have 5 guesses

Enter word with correct number of letters | : egyst.
Correct letters
[e,g,t,y] Correct positon egyp
you have 4 guesses

Enter word with correct number of letters | : edypt.
Correct letters
[e,p,t,y] Correct positon eyp
you have 3 guesses

Enter word with correct number of letters | : egyps.
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SWI-Prolog (Multi-threaded, version 7.2.3)
File Edit Settings Run Debug Help
Please enter a word and its category on separate lines:
|: panadol.

|: drugs.
Please enter a word and its category on separate lines:
|: done.
Done building the database.
The available categories are :[countries,drugs,food]
Choose a category: |: countries.
Enter a length of your choice
|: 5.

you have 6 guesses

Enter word with correct number of letters |: egyp.
Correct letters
[e,g,p,y] Correct position egyp
you have 5 guesses

Enter word with correct number of letters |: egyst.
Correct letters
[e,g,t,y] Correct position egyt
you have 4 guesses

Enter word with correct number of letters |: edypt.
Correct letters
[e,p,t,y] Correct position eypt
you have 3 guesses

Enter word with correct number of letters |: egyps.
Correct letters
[e,g,p,y] Correct position egyp
you have 2 guesses

Enter word with correct number of letters |: egyts.
Correct letters
[e,g,t,y] Correct position egy
you have 1 guesses

Enter word with correct number of letters |: egyts.
Correct letters
[e,g,t,y] Correct position egy You Lost!
true
```

Winning scenario:

For help, use ?- help(Topic). or ?- apropos(Word).

1 ?-

Warning: c:/users/dido/desktop/pro-wordle.pl:11:
Singleton variables: [X]

Warning: c:/users/dido/desktop/pro-wordle.pl:61:
Singleton variables: [K]

Warning: c:/users/dido/desktop/pro-wordle.pl:61:
Singleton variable in branch: K

Warning: c:/users/dido/desktop/pro-wordle.pl:91:
Singleton variables: [G]

1 ?- wordle.

Please enter a word and its category on separate lines:
| : shark.

| : animals.

Please enter a word and its category on separate lines:
| : worm.

| : animals.

Please enter a word and its category on separate lines:
| : apple.

| : fruits.

Please enter a word and its category on separate lines:
| : sugar.

| : food.

Please enter a word and its category on separate lines:
| : done.

Done building the database.

The available categories are :[animals,food,fruits]

Choose a category: | : animals.

Enter a length of your choice

| : 5.

you have 6 guesses

Enter word with correct number of letters | : shark.

You Won!

true .

2 ?- |