

Documentation and User testing for the Hangman game.

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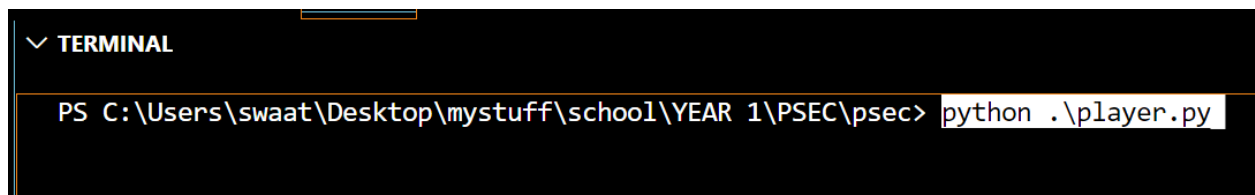
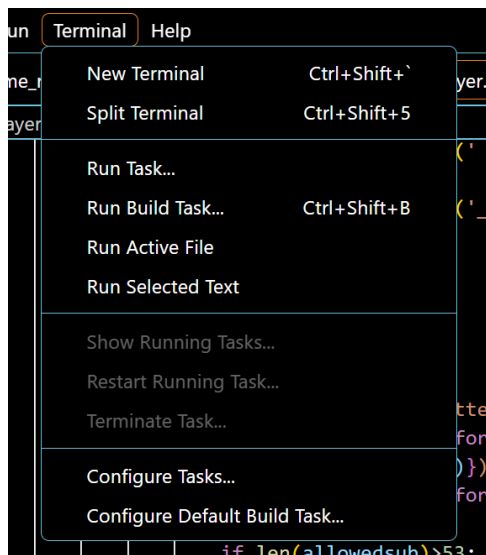
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1.Documentation

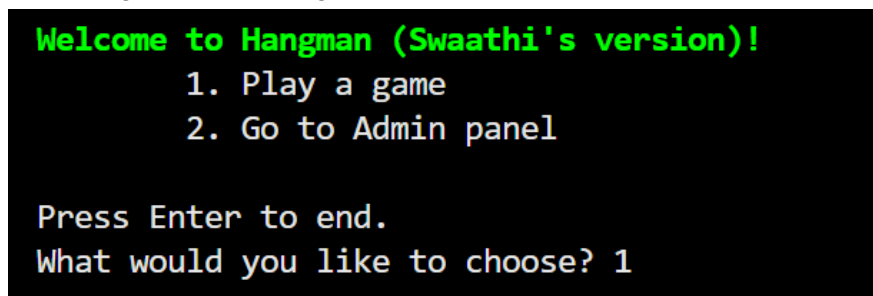
1.1 User Guide: Player

Players of this Hangman game do not have to be familiar with IT.

As a player, all you have to do is go into VS code and open up the folder, 'psec'. Then click on 'terminal' at the top left hand corner of the interface, and click on the option to open up a new terminal. Then just type 'python ./player.py' in the terminal and press enter.



You will get the following menu.



Enter 1 and create/ log into an username. (The purpose of the password is to ensure the same player can play multiple games with the same username.)

```
You can create a new username (and new password) or use an  
existing username (with existing password)
```

```
Username (Case Sensitive): newPlayer
```

```
Password (Case Sensitive): newPlayer
```

```
Logged in.
```

Press enter and choose a category of words (by entering the number beside it) to play the game with.

```
Username created.
```

```
1) Simple words
```

```
2) Complex words
```

```
3) Simple idioms and proverbs
```

```
4) Complex idioms and proverbs
```

```
What would you like to choose?
```

```
Input the number:1
```

Now you will start playing the game. The concept of the game is to guess a phrase/ word that you do not know letter by letter. The more letters you guess wrongly, the faster the picture of a hanged man will form. Once the picture is fully formed, you will lose the game. Thus you have to guess the word before the picture is formed. In this game set, you will have an undetermined number of attempts and words within each attempt. For instance, a game set can have 2 attempts and 2 words within each attempt. (The exact number can be edited by the Admin.) You can get a maximum of 6 letters wrong before you lose the word.

1. You will get 1 point for each correct letter guessed.
2. If you guess the whole word you will get 20 points.
3. If you use a helpline and do not manage to guess the whole word, you will be penalised 4 points.
4. You can only use one helpline in each game attempt.

When the game starts, you will get the following output. You can type a letter you would like to guess and press enter.

Continue guessing letters until you win or lose a word.

o i e

o i e

Once you are done playing the game, a leaderboard would be displayed for you to see the top scorers.

Your points for this game: -4

```
1.oooo (1)      date:15-12-2022 points:80
2.Taylor (1)    date:15-12-2022 points:78
3.Swaathi (2)   date:15-12-2022 points:60
4.Lakshmanan (2)      date:15-12-2022 points:60
```

You can choose to continue playing or press enter to end.

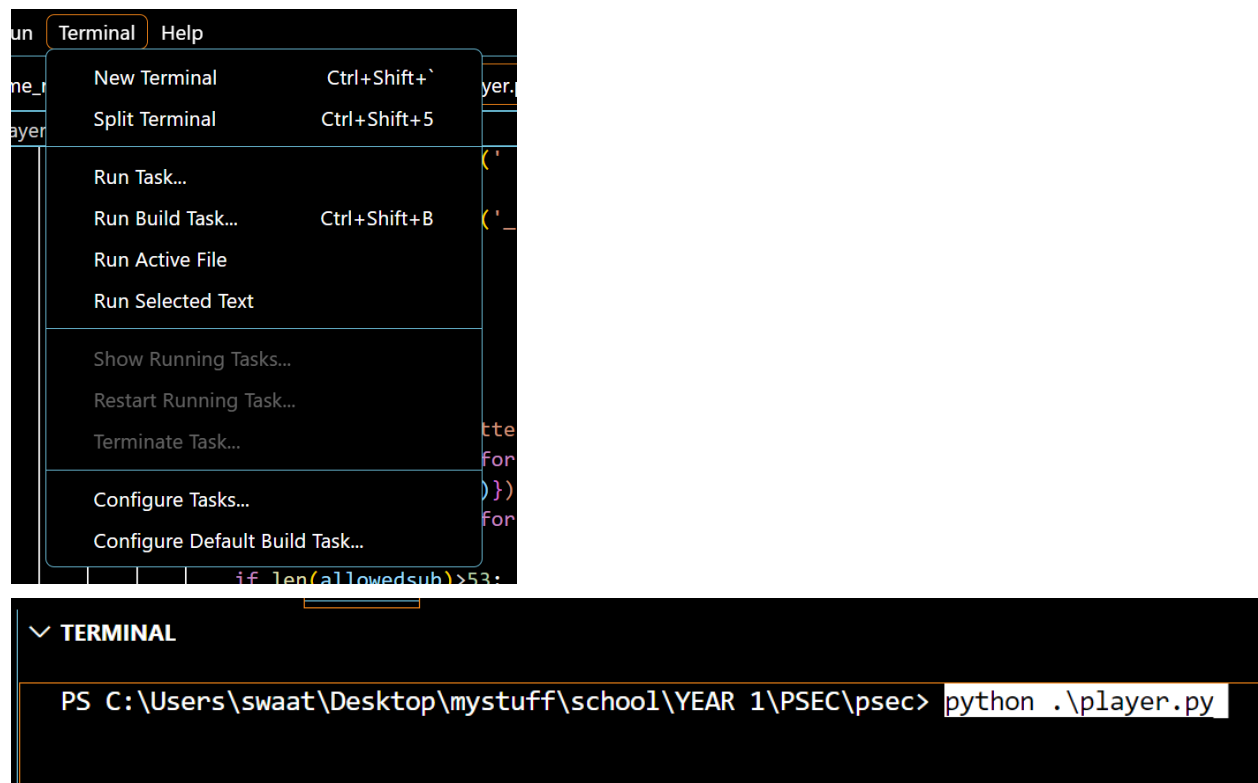
```
Welcome to Hangman (Swaathi's version)!
1. Play a game
2. Go to Admin panel

Press Enter to end.
What would you like to choose?
Thank you.
```

1.2 User Guide: Admin

Important: Please do not view or edit the text files manually. Ensure you only edit them through the program.

As an admin, all you have to do is go into VS code and open up the folder, 'psec'. Then click on 'terminal' at the top left hand corner of the interface, and click on the option to open up a new terminal. Then just type 'python ./player.py' in the terminal and press enter.



You will get the following menu.

Welcome to Hangman (Swaathi's version)!

1. Play a game
2. Go to Admin panel

Press Enter to end.

What would you like to choose?

Thank you.

Press 2 then enter. The following screenshot shows the username and password to successfully view the admin options. The username is admin and the password is qQ1@.

Username (Case Sensitive): admin

Password (Case Sensitive): qQ1@

You will receive 4 options upon successfully logging in:

Welcome to the admin panel:

- 1) Edit dictionaries
- 2) Edit game settings
- 3) See records
- 4) Reset password

1.2.1 Option 1: Edit dictionaries

If you press 1 and enter, you will be presented with the following options.

What would you like to choose? 1

- 1) Add a new dictionary
- 2) Add a new word to an existing dictionary
- 3) Edit description of a word in an existing dictionary
- 4) Delete a word in an existing dictionary
- 5) Edit a word in an existing dictionary

Press Enter to exit.

What would you like to choose?

Using 1, you can add a new (empty) category of words.

```
What would you like to choose? 1
Enter the name of the new dictionary: newDictionary
```

Using 2, you can add a new word to an existing category.

```
Press Enter to exit.
What would you like to choose? 2

    1) Simple words
    2) Complex words
    3) Simple idioms and proverbs
    4) Complex idioms and proverbs
    5) newDictionary

Press Enter to exit.
What would you like to edit?
Input a number: 5
Enter the new word: newWord
Enter the description of the new word: mewning
```

Using 3, you can edit the meaning of an existing word in the dictionary.

```
Press Enter to exit.
What would you like to choose? 3

    1) Simple words
    2) Complex words
    3) Simple idioms and proverbs
    4) Complex idioms and proverbs
    5) newDictionary

What would you like to edit?
Input a number: 5

    1) newword: mewning
What would you like to edit?
Input a number: 1
```


Using 4, you can delete an item in the dictionary.

```
Press Enter to exit.  
What would you like to choose? 4  
  
    1) Simple words  
    2) Complex words  
    3) Simple idioms and proverbs  
    4) Complex idioms and proverbs  
    5) newDictionary  
  
Press Enter to exit.  
What would you like to edit?  
Input a number: 5  
  
    1) new word: meaning  
What would you like to delete?  
Input a number: 1
```

Using 5, you can edit the word itself (not the meaning) in a dictionary.

```
Press Enter to exit.  
What would you like to choose? 5  
  
    1) Simple words  
    2) Complex words  
    3) Simple idioms and proverbs  
    4) Complex idioms and proverbs  
    5) newDictionary  
  
Press Enter to exit.  
What would you like to edit?  
Input a number: 5  
  
    1) newword: meaning  
What would you like to edit?  
Input a number: 1  
Enter the new word: new word
```

1.2.2 Option 2: Edit game settings

If you press 2 and enter, you will be presented with the following options.

```
Press Enter to exit.  
What would you like to choose? 2  
  
    1) Edit number of attempts  
    2) Edit number of words  
    3) Edit number of top players  
  
Press Enter to exit.
```

You can choose to edit the number of attempts in each game, words in each attempt or the number of top players displayed at the end of the game by inputting the number beside each option.

```
Press Enter to exit.  
What would you like to choose? 1  
  
Current value is: 2  
What is the new value? 1
```

1.2.3 Option 3: See records

If you press 3 and enter, you will be asked to enter the first and last date of the records you would like to see. Please enter the date as numerals in the following format: day-month-year.

```
Please enter integer dates in this format: dd-mm-yyyy.  
Enter First Date: 12-12-2022  
Enter Last date: 30-12-2022
```

After entering the dates, you will be able to see the players, the number of games they played, the date during which they played each game, the points they earned during each game, and the words that were set for that particular game.

RECORDS

Simple words

Swaathi (1)	date:12-12-2022	points:30	words:['deer', 'zebra', 'fox']
Sandhya (1)	date:13-12-2022	points:30	words:['deer', 'zebra', 'fox']
Lakshmanan (1)	date:14-12-2022	points:30	words:['deer', 'zebra', 'fox']
swag (1)	date:14-12-2022	points:-3	words:['roach', 'fox', 'whale', 'sloth']
Swaathi (2)	date:15-12-2022	points:60	words:['sloth', 'puppy', 'raven', 'whale']
Taylor (1)	date:15-12-2022	points:78	words:['puppy', 'mouse', 'boar', 'lamb']
francis (1)	date:15-12-2022	points:21	words:['fawn', 'wolf', 'bear', 'mouse']
Lakshmanan (2)	date:15-12-2022	points:60	words:['raven', 'lion', 'mouse', 'fawn']
oooo (1)	date:15-12-2022	points:80	words:['lamb', 'boar', 'puppy', 'deer']
sandhyaaa (1)	date:15-12-2022	points:2	words:['wolf', 'shark sloth whale']
sandhyalol (1)	date:15-12-2022	points:22	words:['viper', 'sloth shark wolf']
sandhyalol (2)	date:15-12-2022	points:43	words:['bear', 'lamb', 'fox', 'roach']
newPlayer (1)	date:20-12-2022	points:20	words:['mouse', 'zebra', 'viper', 'frog']
heggles (1)	date:22-12-2022	points:38	words:['sloth', 'lion', 'mouse', 'frog']
SembaKing (1)	date:24-12-2022	points:20	words:['whale', 'fox', 'deer', 'best']
SembaKing (2)	date:24-12-2022	points:-4	words:['eagle', 'boar', 'frog', 'shark']
SembaKing (3)	date:24-12-2022	points:-3	words:['fawn']
Sarah (1)	date:24-12-2022	points:5	words:['frog', 'welp', 'shark', 'bear', 'fawn', 'puppy', 'boar', 'zebra', 'deer']
Sarah (2)	date:24-12-2022	points:1	words:['eagle', 'viper', 'lion', 'raven', 'best', 'whale', 'wolf', 'fox', 'roach']
elephant (1)	date:25-12-2022	points:20	words:['raven']
elephant (2)	date:25-12-2022	points:20	words:['best']
elephant (3)	date:25-12-2022	points:21	words:['wolf', 'mouse']
Samsung (1)	date:25-12-2022	points:20	words:['best']
new-user/one (1)	date:26-12-2022	points:-2	words:['zebra']
new-user/one (2)	date:26-12-2022	points:20	words:['frog']
Mario (1)	date:27-12-2022	points:20	words:['eagle']
Mario (2)	date:27-12-2022	points:20	words:['mouse']

1.2.4 Reset Password

If you press 4 and enter, you will be able to reset your admin password. There a few requirements for the password to be valid:

- Should have at least one number.
- Should have at least one uppercase and one lowercase character.
- Should have at least one of these special symbols (!@#\$%).
- Should be between 4 to 20 characters long.

Welcome to the admin panel:

- 1) Edit dictionaries
- 2) Edit game settings
- 3) See records
- 4) Reset password

Press Enter to exit.

What would you like to choose? 4

Password must comply with the following:

- Should have at least one number
- Should have at least one uppercase and one lowercase character
- Should have at least one of these special symbols (!@#)\$%)
- Should be between 4 to 20 characters long

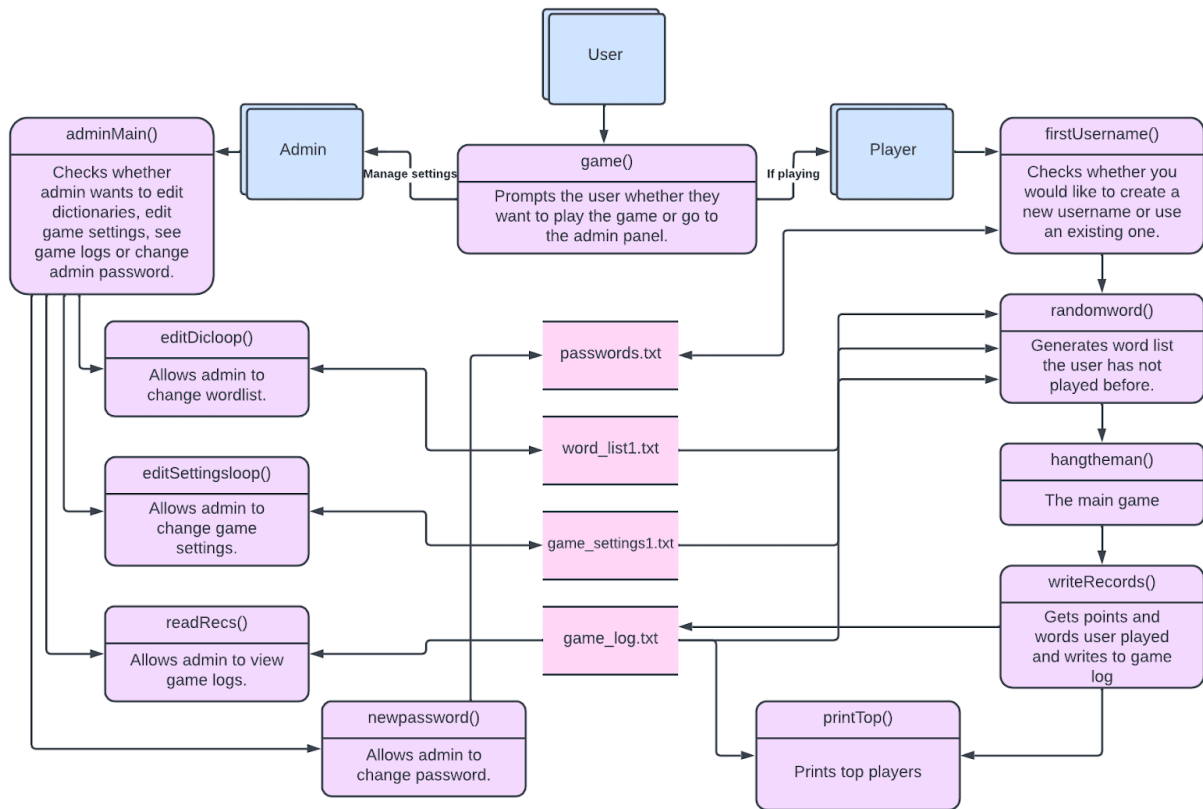
Please enter your new password: eW1@

1.2.5 List of input-output files

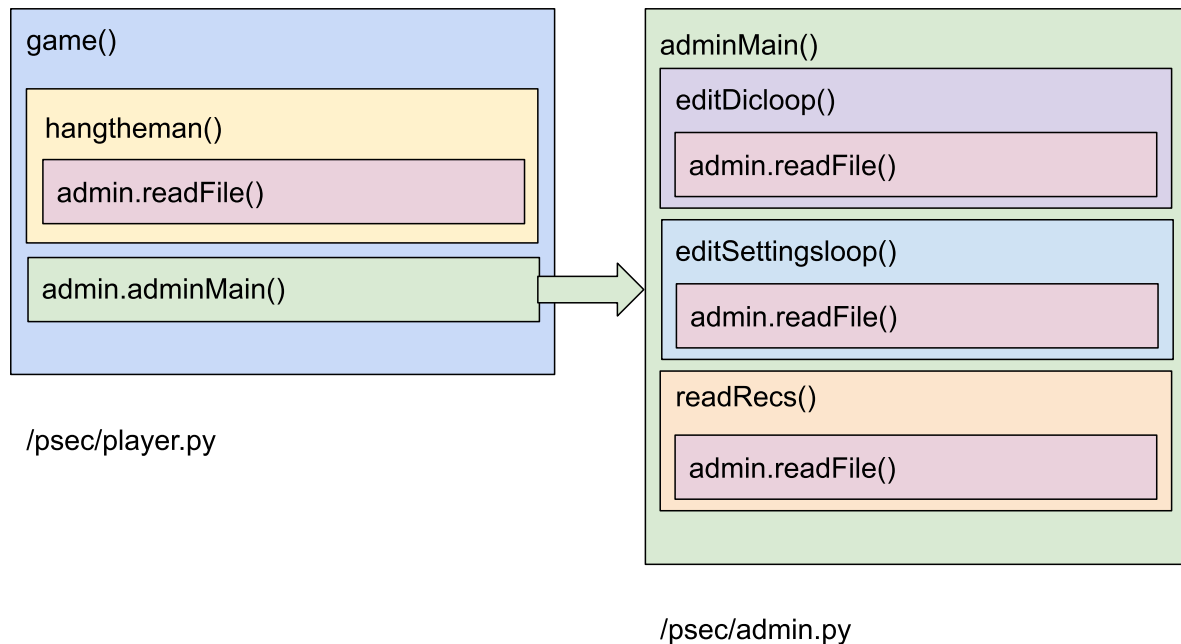
1. \psec\admin.py
2. \psec\player.py
3. \psec\word-list1.txt
4. \psec\hangman_hanged.txt
5. \psec\game_settings1.txt
6. \psec\game_log.txt
7. \psec\passwords.txt

1.3 System

1.3.1 Data Flow Diagram



1.3.2 How functions are used and where they are located.



1.3.3 game()

This is the main loop. It contains an if-else statement to check whether the player/admin wants to end the running script, start playing a game, or would like to change settings.

1.3.4 hangtheman()

This is the main game loop. It checks whether you are guessing a correct letter, outputs the appropriate stage of the hanged man and finally outputs whether you have won or lost the game.

1.3.5 readfile()

This is the main function to read the text files into dictionaries. As you can see in the image above, this function is used to read the text files in every main function of the script.

1.3.6 adminMain()

This is the main admin function which allows the admin to update the textfiles (thus, the game settings and word list) without actually touching the text files. This also checks whether the user would like to return to the main menu (outputted by `game()`) and allows the admin to see the data on games played between certain dates.

1.3.7 editDicloop()

This is the main loop to allow the admin to edit the word lists.

1.3.8 editSettingloop()

This is the main loop that allows the admin to change the settings.

1.3.9 readRecs()

This is the main function that asks the admin for certain dates and outputs the data of the games played within those certain dates.

2.User testing

2.1 player.py and advanced features

Test data	Expected result	Test result (Screenshots)
Initial username		
New username and password	Additional line to passwords.txt and output must be 'username created'	Figure 1, 2, 33
New username with / or -		
Existing username and password	No new lines in password.txt and output must be 'logged in'	Figure 3
Existing username, new password	Output must be 'If you are trying to login, your password is incorrect. If you are trying to create a new username, the username already exists. ' and there should be a prompt for a new username and password.	Figure 4
Numbers in username	Output must be 'Invalid username' and there must a prompt for a new username and password	Figure 5
Special characters in username		
Space in username		
No username entered		
Choosing category of words		
Enter 1/ 2/ 3/ 4 (or how many ever categories there are)	Must start playing the game	Figure 6
Enter number/ special characters/ letters/ space	Must prompt for a different input	Figure 7
Generating random words		
Confirm that all words are not repeated for the same player. (They are unique)	Screenshot of game log file.	Figure 38
Game itself		

Insert a valid character	Game should continue	Figure 10
Use lifeline and try entering 1 or 2 again during the same attempt	Must prompt for another input	Figure 8, Figure 9, Figure 39
Try entering a number that is not 1 or 2		
Enter multiple letters		
Enter special characters		
Enter just space		
Enter 'n' after 1 attempt or word	Game should end and top players should be displayed	Figure 11
Enter all the correct characters for a word	You should win the game	Figure 13
Enter wrong characters for a word	You should lose the game	Figure 11
Ensure lifeline 1 shows all the vowels in a word and lifeline 2 shows the meaning of the word		Figure 8, Figure 12
Playing simple/ complex idioms and proverbs		Figure 35, 36, 37
Play games to ensure the scores are calculated accurately.	<ul style="list-style-type: none"> • One game with the whole word correct: 20 points • One word with only two characters right: 2 points • One word, Using lifeline but no correct letters; -4 points 	Figure 40, 41, 42, 43, 44, 45

2.2 admin.py

Test data	Expected result	Test result (Screenshots)
Username and password		

Enter correct password	Should login to admin panel	Figure 14
Enter wrong password	Should not log in to admin panel	
Initial input		
Enter a number within the range.	Should bring you to the correct category	Figure 16
Enter a letter/ number not within range/ special character	Should prompt for another input	Figure 15
Edit dictionary		
Enter a number within the range	Should let you edit correct category and edit must be reflected in word_list1.txt	Figure 19, 20, 30, 31
Enter number not within range/ letter where integer is required/ special characters	Must prompt for another input	Figure 17,18
Enter a word with numbers/ special characters		
Do not enter anything		
Attempting to delete items from an empty dictionary	A message should say the dictionary is empty	Figure 32
Complex words should have more than ten characters: Enter complex word with less than ten characters	A message should say the input is invalid	Figure 47
Complex words should have more than ten characters: Enter complex word with more than 9 characters	The complex word should be accepted.	Figure 46
Complex idioms and proverbs should have at least 8 words: Enter phrase with less than 8 words	A message should say the input is invalid.	Figure 48
Complex idioms and proverbs should have at least 8 words: Enter phrase with more than 7 words	Complex phrase should be accepted	Figure 49

Edit game setting		
Enter a number within the range	Should let you edit correct category and edit must be reflected in game_settings1.txt	Figure 21, 22, 28
Enter number not within range/ letter where integer is required/ special characters	Must prompt for another input	Figure 21
See Records		
Enter valid dates first smaller than the other	Appropriate records should be displayed.	Figure 24, 34
Enter valid dates first bigger than the other.	Appropriate records should be displayed	Figure 23
Enter dates with special characters or letter	Must prompt for another input	Figure 27
Enter numbers for date category and invalid characters for month or year category.		
Change password		
Enter password lesser than 4 characters	The password shouldn't be accepted.	Figure 25
Enter password with more than 20 characters		
Enter password not complying with requirements		
Enter password that fits requirements.	The password should be accepted.	Figure 26

2.3 Screenshots

```

You can create a new username (and new password) or use an
existing username (with existing password)
Username (Case Sensitive): newUser
Password (Case Sensitive): newUser

Username created.

```

Figure 1

```
You can create a new username (and new password) or use an
existing username (with existing password)
Username (Case Sensitive): new-user/one
Password (Case Sensitive): new-user/oe

Username created.
```

Figure 2

```
You can create a new username (and new password) or use an
existing username (with existing password)
Username (Case Sensitive): new-user/one
Password (Case Sensitive): new-user/oe

Logged in.
```

Figure 3

```
You can create a new username (and new password) or use an
existing username (with existing password)
Username (Case Sensitive): new-user/one
Password (Case Sensitive): new-user/one
If you are trying to login, your password is incorrect. If
you are trying to create a new username, the username alrea
dy exists.
```

Figure 4

```
Username (Case Sensitive): user name
Password (Case Sensitive): username
invalid username.
```

Username (Case Sensitive):

invalid username.

```
Username (Case Sensitive): 1user
```

invalid username.

```
Username (Case Sensitive): user$
```

invalid username.

Username (Case Sensitive): user name

invalid username.

Username (Case Sensitive):

invalid username.

[illegible]

Figure 6


```
Select a valid letter [a-z, ']: 7
Invalid letter
Select a valid letter [a-z, ']: fff
Invalid letter
Select a valid letter [a-z, ']: #
Invalid letter
Select a valid letter [a-z, ']: 
```

Figure 9

```

_ e _ r a
Incorrect letters: (0)

Select a valid letter [a-z,']: f

_ e _ r a
Incorrect letters: f (1)

Select a valid letter [a-z,']: 

```

Figure 10

_ e _ r a

Top Players for Simple words

2.Taylor (1) date:15-12-2022 points:78

Figure 11

— — — —

The meaning is: ribbit

Figure 12

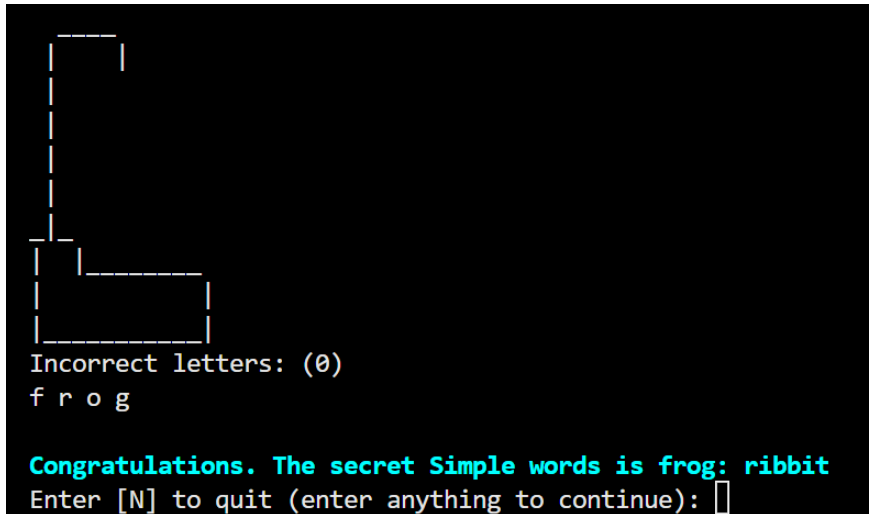


Figure 13

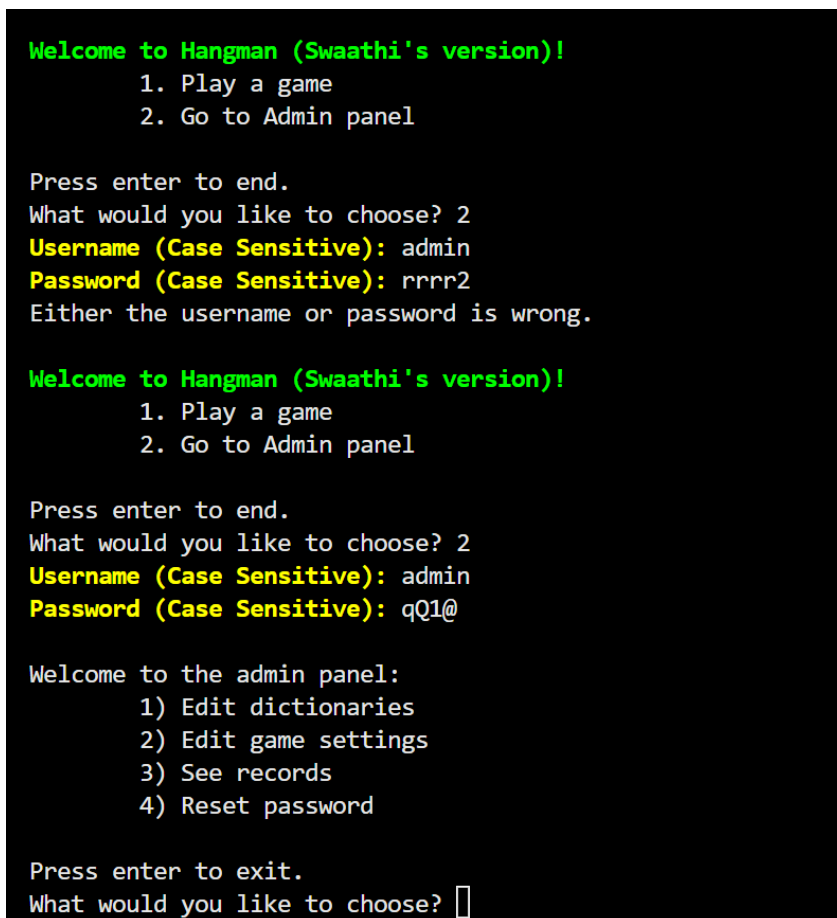


Figure 14

```

Press enter to exit.
What would you like to choose? 7
Please enter an integer within the given range.

Welcome to the admin panel:
    1) Edit dictionaries
    2) Edit game settings
    3) See records
    4) Reset password

Press enter to exit.
What would you like to choose? r
Please enter an integer within the given range.

Welcome to the admin panel:
    1) Edit dictionaries
    2) Edit game settings
    3) See records
    4) Reset password

Press enter to exit.
What would you like to choose? $
Please enter an integer within the given range.

```

Figure 15

```

Press enter to end.
What would you like to choose? 2
Username (Case Sensitive): admin
Password (Case Sensitive): qQ1@

Welcome to the admin panel:
    1) Edit dictionaries
    2) Edit game settings
    3) See records
    4) Reset password

Press enter to exit.
What would you like to choose? 1

    1) Add a new dictionary
    2) Add a new word to an existing dictionary
    3) Edit description of a word in an existing dictio
nary
    4) Delete a word in an existing dictionary
    5) Edit a word in an existing dictionary

Press enter to exit.
What would you like to choose? █

```

Figure 16

```

    1) Add a new dictionary
    2) Add a new word to an existing dictionary
    3) Edit description of a word in an existing dictio
nary
    4) Delete a word in an existing dictionary
    5) Edit a word in an existing dictionary

Press enter to exit.
What would you like to choose? 7
Please enter an integer within the given range.

    1) Add a new dictionary
    2) Add a new word to an existing dictionary
    3) Edit description of a word in an existing dictio
nary
    4) Delete a word in an existing dictionary
    5) Edit a word in an existing dictionary

Press enter to exit.
What would you like to choose? 

```

Figure 17

```

Press enter to exit.
What would you like to choose? 2

    1) Simple words
    2) Complex words
    3) Simple idioms and proverbs
    4) Complex idioms and proverbs
    5) Four Letter Words
    6) Clothing
    7) Seven Letter Words

Press enter to exit.
What would you like to edit?
Input a number: 6
Enter the new word:
All words/idioms/proverbs to be guessed have to only contain letters and the occasional " ' "
Enter the new word: $omething
All words/idioms/proverbs to be guessed have to only contain letters and the occasional " ' "
Enter the new word: 

```

Figure 18

```
Press enter to exit.
What would you like to choose? 2

    1) Simple words
    2) Complex words
    3) Simple idioms and proverbs
    4) Complex idioms and proverbs
    5) Four Letter Words
    6) Clothing
    7) Seven Letter Words

Press enter to exit.
What would you like to edit?
Input a number: 6
Enter the new word:
All words/idioms/proverbs to be guessed have to only contain letters and the occasional " ' "
Enter the new word: $omething
All words/idioms/proverbs to be guessed have to only contain letters and the occasional " ' "
Enter the new word: tie
Enter the description of the new word: you wear it around your neck
```

Figure 19

```
68  +Clothing
69  socks:you wear this on your feet
70  jeans:you wear this during smart casual events, u
71  sweater:swaathi's favourite form of clothing
72  tie:you wear it around your neck
73  END
```

Figure 20

```

Press enter to exit.
What would you like to choose? 2

    1) Edit number of attempts
    2) Edit number of words
    3) Edit number of top players

Press enter to exit.
What would you like to choose? r
Please enter an integer within the given range.

    1) Edit number of attempts
    2) Edit number of words
    3) Edit number of top players

Press enter to exit.
What would you like to choose? 3

Current value is: 3
What is the new value? r
Please enter a valid integer.

What is the new value? 5

    1) Edit number of attempts
    2) Edit number of words
    3) Edit number of top players

```

Figure 21

```

1  +game settings
2  number of attempts:1
3  number of words:1
4  number of top players:5
5  END

```

Figure 22

```

Please enter integer dates in this format: dd-mm-yyyy.
Enter First Date: 26-12-2022
Enter Last date: 2-12-2022
RECORDS

Simple words
Swaathi (1)      date:12-12-2022 points:30      words:['dee
r', 'zebra', 'fox']
Sandhya (1)      date:13-12-2022 points:30      words:['dee
r', 'zebra', 'fox']
Lakshmanan (1)   date:14-12-2022 points:30      words:['dee
r', 'zebra', 'fox']
swag (1)         date:14-12-2022 points:-3      words:['roa
ch', 'fox', 'whale', 'sloth']
Swaathi (2)      date:15-12-2022 points:60      words:['slo

```

Figure 23

```

Please enter integer dates in this format: dd-mm-yyyy.
Enter First Date: 12-12-2022
Enter Last date: 26-12-2022
RECORDS

Simple words
Swaathi (1)      date:12-12-2022 points:30      words:['dee
r', 'zebra', 'fox']
Sandhya (1)      date:13-12-2022 points:30      words:['dee
r', 'zebra', 'fox']
Lakshmanan (1)   date:14-12-2022 points:30      words:['dee
r', 'zebra', 'fox']
swag (1)         date:14-12-2022 points:-3      words:['roa
ch', 'fox', 'whale', 'sloth']
Swaathi (2)      date:15-12-2022 points:60      words:['slo

```

Figure 24

```

Please enter your new password: $1s
Password is invalid.

Password must comply with the following:
- Should have at least one number
- Should have at least one uppercase and one lowercase char
acter
- Should have at least one of these special symbols (!@#$%)
- Should be between 4 to 20 characters long

Please enter your new password: gggggggggggG111111&&&
Password is invalid.

Password must comply with the following:
- Should have at least one number
- Should have at least one uppercase and one lowercase char
acter
- Should have at least one of these special symbols (!@#$%)
- Should be between 4 to 20 characters long

Please enter your new password: f22%
Password is invalid.

Password must comply with the following:
- Should have at least one number
- Should have at least one uppercase and one lowercase char
acter
- Should have at least one of these special symbols (!@#$%)
- Should be between 4 to 20 characters long

Please enter your new password: 

```

Figure 25

```
Password must comply with the following:
- Should have at least one number
- Should have at least one uppercase and one lowercase character
- Should have at least one of these special symbols (!@#$%)
- Should be between 4 to 20 characters long

Please enter your new password: eW1@

Welcome to the admin panel:
```

Figure 26

```
Press enter to exit.
What would you like to choose? 3

Please enter integer dates in this format: dd-mm-yyyy.
Enter First Date: $$-6-y
Please enter a valid date.
Enter First Date: 34-13-1001
Please enter a valid date.
Enter First Date: 
```

Figure 27

```
Welcome to the admin panel:
1) Edit dictionaries.
2) Edit game settings.
3) See records
4) Reset passwords

Press enter to end.
What would you like to choose? 2

1) Edit number of attempts
2) Edit number of words
3) Edit number of top players

Press enter to end.
What would you like to choose? 1

Current value is: 2
What is the new value? 1

1) Edit number of attempts
2) Edit number of words
3) Edit number of top players

Press enter to end.
What would you like to choose? 1

Current value is: 1
What is the new value? 
```

Figure 28 (older version of code)

```

Password (Case Sensitive): qQ1@

Welcome to the admin panel:
1) Edit dictionaries.
2) Edit game settings.
3) See records
4) Reset passwords

Press enter to end.
4) Delete an item in dictionary.
5) Edit item itself in dictionary

Press enter to end.
What would you like to choose? 1
Enter the new dictionary: Simple words
This dictionary already exists

1) Add a new dictionary.
2) Add new item to existing dictionary.
3) Edit meaning item in exiting dictionary.
4) Delete an item in dictionary.
5) Edit item itself in dictionary

Press enter to end.
What would you like to choose? 1
Enter the new dictionary: 4 letter words

1) Add a new dictionary.
2) Add new item to existing dictionary.
3) Edit meaning item in exiting dictionary.
4) Delete an item in dictionary.
5) Edit item itself in dictionary

Press enter to end.
What would you like to choose? 

```

Figure 29 (older version of code)

```

Welcome to the admin panel:
1) Edit dictionaries.
2) Edit game settings.
3) See records
4) Reset passwords

Press enter to end.
What would you like to choose? 1

1) Add a new dictionary.
2) Add new item to existing dictionary.
3) Edit meaning item in exiting dictionary.
4) Delete an item in dictionary.
5) Edit item itself in dictionary

Press enter to end.
What would you like to choose? 3

1) Simple words
2) Complex words
3) Simple idioms and proverbs
4) Complex idioms and proverbs

Press enter to end.
What would you like to edit?
Input a number: 1

4) wolf: leader of the pack is usually called alpha
5) lion: king of the forest
6) bear: loves honey
7) shark: notorious in the ocean and most prominently found in soup
8) frog: ribbit
9) whale: fairly huge and are one of the few mammals in the sea
10) boar: a male pig
11) fawn: a young deer
12) lamb: baby sheep
13) mouse: an animal in the family of rodents

```

Figure 30 (older version of code)

- 1) Add a new dictionary.
- 2) Add new item to existing dictionary.
- 3) Edit meaning item in exiting dictionary.
- 4) Delete an item in dictionary.
- 5) Edit item itself in dictionary

Press enter to end.

What would you like to choose? 3

- 1) Simple words
- 2) Complex words
- 3) Simple idioms and proverbs
- 4) Complex idioms and proverbs
- 5) 4 letter words

What would you like to edit?

Input a number: 5

- 1) care: showing concern\

What would you like to edit?

Input a number: 1

What is the new description? showing concern

- 1) Add a new dictionary.
- 2) Add new item to existing dictionary.
- 3) Edit meaning item in exiting dictionary.
- 4) Delete an item in dictionary.
- 5) Edit item itself in dictionary

Press enter to end.

What would you like to choose? █

Figure 31 (older version of code)

What would you like to choose? 4

- 1) Simple words
- 2) Complex words
- 3) Simple idioms and proverbs
- 4) Complex idioms and proverbs
- 5) 4 letter words

Press enter to end.

What would you like to edit?

Input a number: 5

- 1) care: showing concern

What would you like to delete?

Input a number: 1

- 1) Add a new dictionary.
- 2) Add new item to existing dictionary.
- 3) Edit meaning item in exiting dictionary.
- 4) Delete an item in dictionary.
- 5) Edit item itself in dictionary

Press enter to end.

What would you like to choose? 4

- 1) Simple words
- 2) Complex words
- 3) Simple idioms and proverbs
- 4) Complex idioms and proverbs
- 5) 4 letter words

Press enter to end.

What would you like to edit?

Input a number: 5

This dictionary is empty

Figure 32 (older version of code)

```

Welcome to Hangman (Swaathi's version)!
1. Play a game
2. Change settings (Admin)

Press enter to end.
What would you like to choose? 1

You can create a new username (and new password) or use an existing username (with exiting password)
Username (Case Sensitive): SembaKing
Password (Case Sensitive): qQ1@

Username created.

1) Simple words
2) Complex words
3) Simple idioms and proverbs
4) Complex idioms and proverbs
5) 4 letter words

Press enter to end.
What would you like to choose?
Input a number: 1

```

Figure 33 (older version of code)

```

Welcome to Hangman (Swaathi's version)!
1. Play a game
2. Change settings (Admin)

Press enter to end.
What would you like to choose? 2
Username (Case Sensitive): admin
Password (Case Sensitive): qQ1@

Welcome to the admin panel:
1) Edit dictionaries.
2) Edit game settings.
3) See records
4) Reset passwords

Press enter to end.
What would you like to choose? 3

Please enter integer dates in this format: dd-mm-yyyy.
Enter First Date: 11-12-2022
Enter last date: 25-12-2022
RECORDS

Simple words
Swaathi (1)      date:12-12-2022 points:30      words:['deer', 'zebra', 'fox']
Sandhya (1)      date:13-12-2022 points:30      words:['deer', 'zebra', 'fox']
Swaathi (2)      date:15-12-2022 points:60      words:['sloth', 'puppy', 'raven', 'whale']
Taylor (1)       date:15-12-2022 points:78      words:['puppy', 'mouse', 'boar', 'lamb']
francis (1)      date:15-12-2022 points:21      words:['fawn', 'wolf', 'bear', 'mouse']
Lakshmanan (2)   date:15-12-2022 points:60      words:['raven', 'lion', 'mouse', 'fawn']
oooo (1)         date:15-12-2022 points:80      words:['lamb', 'boar', 'puppy', 'deer']
sandhyaaa (1)    date:15-12-2022 points:2       words:['wolf', 'shark sloth whale']
sandhyalol (1)   date:15-12-2022 points:22      words:['viper', 'sloth shark wolf']
sandhyalol (2)   date:15-12-2022 points:43      words:['bear', 'lamb', 'fox', 'roach']
newPlayer (1)    date:20-12-2022 points:20      words:['mouse', 'zebra', 'viper', 'frog']
heggles (1)      date:22-12-2022 points:38      words:['sloth', 'lion', 'mouse', 'frog']
SembaKing (1)    date:24-12-2022 points:20      words:['whale', 'fox', 'deer', 'best']

```

Figure 34 (older version of code)

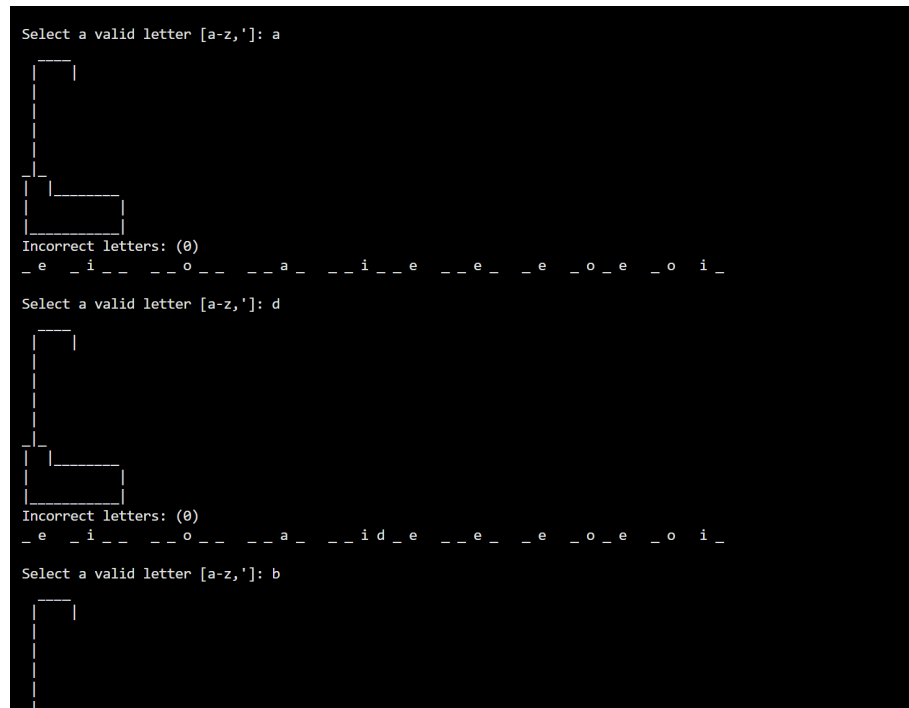


Figure 35



Figure 36

```

Incorrect letters: (0)

Incorrect letters: (0)
we will cross that bridge when we co_e to it

Select a valid letter [a-z,']: m

Incorrect letters: (0)
we will cross that bridge when we come to it

Congratulations. The secret Complex idioms and proverbs is we will cross that bridge when we come to it: let's not talk about that problem right now
Enter [N] to quit (enter anything to continue): N

Top Players for Complex idioms and proverbs
1.newPlayer (1) date:22-12-2022 points:20
2.SembaKing (1) date:24-12-2022 points:20
3.admin (1) date:24-12-2022 points:2

```

Figure 37

```

+Simple words
12-12-2022|1|Swaathi|30|deer, zebra, fox
13-12-2022|1|Sandhya|30|deer, zebra, fox
14-12-2022|1|Lakshmanan|30|deer, zebra, fox
14-12-2022|1|swag|-3|roach, fox, whale, sloth
15-12-2022|2|Swaathi|60|sloth, puppy, raven, whale
15-12-2022|1|Taylor|78|puppy, mouse, boar, lamb
15-12-2022|1|francis|21|fawn, wolf, bear, mouse
15-12-2022|2|Lakshmanan|60|raven, lion, mouse, fawn
15-12-2022|1|oooo|80|lamb, boar, puppy, deer
15-12-2022|1|sandhyaaa|2|wolf, shark sloth whale
15-12-2022|1|sandhyalol|22|viper, sloth shark wolf
15-12-2022|2|sandhyalol|43|bear, lamb, fox, roach
20-12-2022|1|newPlayer|20|mouse, zebra, viper, frog
22-12-2022|1|heggles|38|sloth, lion, mouse, frog
24-12-2022|1|SembaKing|20|whale, fox, deer, best
24-12-2022|2|SembaKing|-4|eagle, boar, frog, shark

```

Figure 38

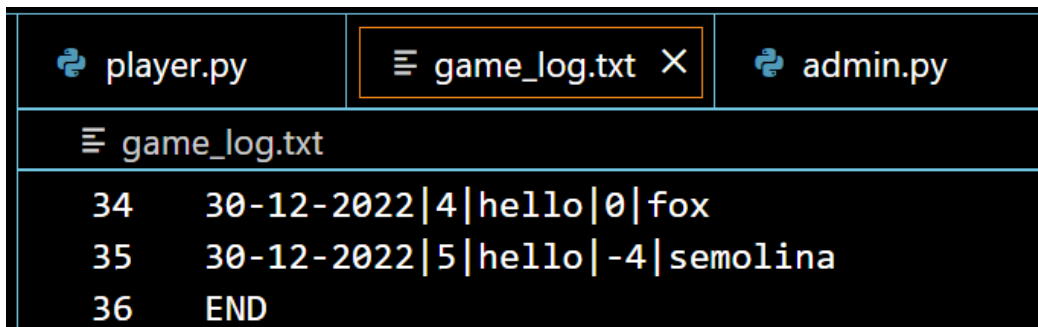


Figure 45

```
Press Enter to exit.
What would you like to choose? 2

    1) Simple words
    2) Complex words
    3) Simple idioms and proverbs
    4) Complex idioms and proverbs

Press Enter to exit.
What would you like to edit?
Input a number: 2
Enter the new word: icebreaker
Enter the description of the new word: games played when
people are unfamiliar with each other to make them more f
amiliar
```

Figure 46

```
    1) Simple words
    2) Complex words
    3) Simple idioms and proverbs
    4) Complex idioms and proverbs

Press Enter to exit.
What would you like to edit?
Input a number: 2
Enter the new word: hello
Word has to have more than 10 letters.
```

Figure 47

- 1) Simple words
- 2) Complex words
- 3) Simple idioms and proverbs
- 4) Complex idioms and proverbs

Press Enter to exit.

What would you like to edit?

Input a number: 4

Enter the new word: I am so funny

Complex idioms and proverbs need to have more than 7 words in them.

Figure 48

- 1) Simple words
- 2) Complex words
- 3) Simple idioms and proverbs
- 4) Complex idioms and proverbs

Press Enter to exit.

What would you like to edit?

Input a number: 4

Enter the new word: A journey of a thousand miles begins with a single step

Enter the description of the new word: Something that takes a long time to finish begins with one step

Figure 49

3.Reflection

3.1 General reflection

Writing this game opened my eyes to the reality that it is not possible to get the best version of a program with the first draft and thorough testing and debugging is required to improve the code. This made me further appreciate agile and iterative software development.

3.2 Some challenges when working on this assignment

I initially had some problems updating my text files, especially when I finished updating the file in the admin panel and moved on to the main menu. The text files would not have been updated once the programme ended.

After I finished coding my program I had other people (family and friends) help me with testing my code. Since they were not familiar with my code and deviated from my thought process when I coded the program, they were able to help me uncover 5 to 6 errors and crashes. Their comments also helped me to create a more comprehensible and user friendly text interface.

3.3 How I solved those problems

I found that I only updated the dictionaries in admin.py and not in player.py. So after I finished updating the dictionary in admin.py, I would rewrite the text file with the dictionaries in the player.py. Thus, I made sure I only updated the dictionaries and immediately rewrote the text files in admin.py and ensured I did not unnecessarily update the text files anywhere else.

As for the crashes, I was able to add more code to ensure the dictionaries were updated in both admin.py and player.py and validate different inputs. I was also able to use the feedback I got on the text interface to change some of the prompts and add some formatting to the code's output.

4.Check list

StudentID:	P2227171
Name:	Swaathi Lakshmanan
Class:	DISM/FT/1B/05
Assessment:	CA1-1

Checklist

No	Description	Remarks*
1	Script: player.py	100%
1.1	Prompt for player name	
1.2	Validate all inputs	
1.3	Generate unique set of random words from word_list Display the following during game play: a) Display the hangman b) Correct letters/character c) Incorrect letters/character d) Attempt X of Y	
1.4	Display the following at end of each game/game set: a) Win/lose and score for the game b) Final score for the game set	
1.5	Display the score of top X players	
1.6	Docstrings and name arguments in script	
2	Script: admin.py	100%
2.1	Validate password	
2.2	Create, Read, Update, and Delete records in word_list and game_settings	
2.3	Print report with start/end date of games played.	
2.4	Docstrings and name arguments in script	

3	Advanced features	100%
3.1	Select complex word	
3.2	Select simple item from "Idioms-Proverbs" category	
3.3	Select complex item from "Idioms-Proverbs" category	
3.4	Lifelines are processed correctly	
4	User testing a) Description of test data and the test b) Screen shots	Y
5	Documentation a) User guide (Admin) b) User guide (Player) c) System	Y
6	Reflection a) Describe some challenges when working on this assignment b) Describe how you solved the problems	Y

* Indicate % of completion for items (1)-(3) and Y/N for item (4)-(6).