PSP0101 Problem Solving and Program Design

ASSIGNMENT

Trimester 1, 2020/2021

Clash of Vocabulary Intellects & Dummies (C.O.V.I.D)

Introduction

Due to the Covid-19 pandemic, the Malaysia government has implemented the Movement Control Order (MCO) to prohibit mass movements and gathering across the country. People are required to stay at home to prevent further spread of the deadly virus.

The Piah's family, just like any other families in Malaysia, are learning to embrace new norm in life. Since the beginning of MCO, Pakcik Piah (*i.e. Uncle Piah in English*), an English school teacher, has to work from home conducting online classes. Makcik Kiah (*i.e. Aunty Kiah in English*), an English-educated housewife and a shopaholic, now has to shop from home through e-commerce websites. Popiah is the only son of Pakcik Piah and Makcik Kiah. He has just begun his first trimester as a Foundation of IT student in MMU. Due to MCO, he has to attend all classes online.

As time flies, the Piah's family started to feel the boredom of staying at home. They are in dire need of some interesting indoor activities to spice up their daily lives. Popiah came up with an interesting idea. Using the knowledge gained from his first programming class, he decided to write a simple English quote puzzle game that he can enjoy with his parents. He considered himself less proficient in English, and hoped that this game would help him improve his English with the help of his parents. He named this game COVID to mean "Clash of Vocabulary Intellects and Dummies", due to the lack of better words.

Mission

You are to develop the COVID game using Python programming language based on **Problem Description** and **Program Requirements** below.

Deadline

Submit your Deliverables to **Google Classroom** by **Sunday 4th October 2020 (on or before 11:59 pm)**.

Grouping

To be done in **a group of maximum 3 students.** Members of the group must come from the same lab section.

Starter Kit

You should find a folder named `Starter Kit` in the same folder as this document. This folder contains files that help you kick start your assignment. Here are the files in the folder:

1. **`quotes.txt`**

   This file contains a list of English quotes from which the game will choose. Each line contains a single quote. You can add new quotes to or remove existing quotes from this file, if you wish.

2. **`psphelper.py`**

   This Python source code contains some helpful functions that you can use in your program. Check out the documentation of each function to know what they do. You don't have to modify this file at all.

3. **`Covid.py`**

   This Python source code demonstrates how to use the functions in **`psphelper.py`**. You may use this code as a starting point for your program, but make sure you code conforms to the requirements in **Source Code Requirements**, **Deliverables**, and **Submission Instructions**.

4. **`game.exe_rename`**

   This is actually an executable for the game. It is given for your reference. To run it, kindly rename it to **`game.exe`**, open command prompt at the executable's location, and type **game**. Please ensure that **quotes.txt** file is in the same folder as this executable, otherwise it will have error. Note that **`game.exe`** can only be run on Windows. To run on Mac OS or Linux, you need to use Wine.

Problem Description

Here are the general descriptions about the game to be developed for this assignment.

1) COVID is a **3-player turn-based game** in which players solve quote puzzles to win money.
2) Each game has a blank quote puzzle, with each blank representing an alphabet in the quote. Punctuation is revealed as needed.
3) The goal of the game is to earn money while solving the puzzle. The player who earns the most is declared the winner.
4) The players are allowed to perform three operations during the game: **solve the puzzle**, **buy a vowel**, and **guess a consonant**. They earn money by solving the puzzle and guessing consonants correctly, while they spend money by buying vowels.
5) To **solve the puzzle**, the player needs to enter his solution. If his solution is correct, the quote is revealed, **the player's money is doubled**, and the winner is declared before the game ends. Otherwise, the player loses his turn to other players.
6) To **buy a vowel**, the player needs to enter the vowel to buy. If the vowel exists, all existences of the vowel in the quote are revealed, provided that the player has sufficient money to buy. In the case where the player has insufficient money, the player still maintains his turn and can play. However, if the vowel does not exist, the player loses his turn to other players. **Each vowel costs RM200**.
7) To **guess a consonant**, the player needs to enter the consonant to guess. Then, a dice is rolled to determine the prize per consonant the player would get if his guess is correct. If the consonant exists, all existences of the consonant in the quote are revealed, and the player earns prizes based on the rolled prize and the number of such consonants in the quote. If the consonant does not exist, the player loses his turn to other players. This is the only operation where dice is rolled.
8) Note that the dice is an octahedron (i.e. a 3D shape with 8 faces) and therefore has 8 values: **RM500, RM 600, RM 700, RM 800, RM 900, RM1000, Bankrupt**, and **Lose A Turn**. Both "Bankrupt" and "Lose A Turn" forfeit the player's turn, with Bankrupt also eliminating the money the player has earned so far.
9) The player gets to maintain his turn (i.e. perform any operations any number of times) unless he gets into any situations mentioned in item (5) to (11) that causes him to lose his turn.
10) The game ends when the puzzle is completely solved by any player.

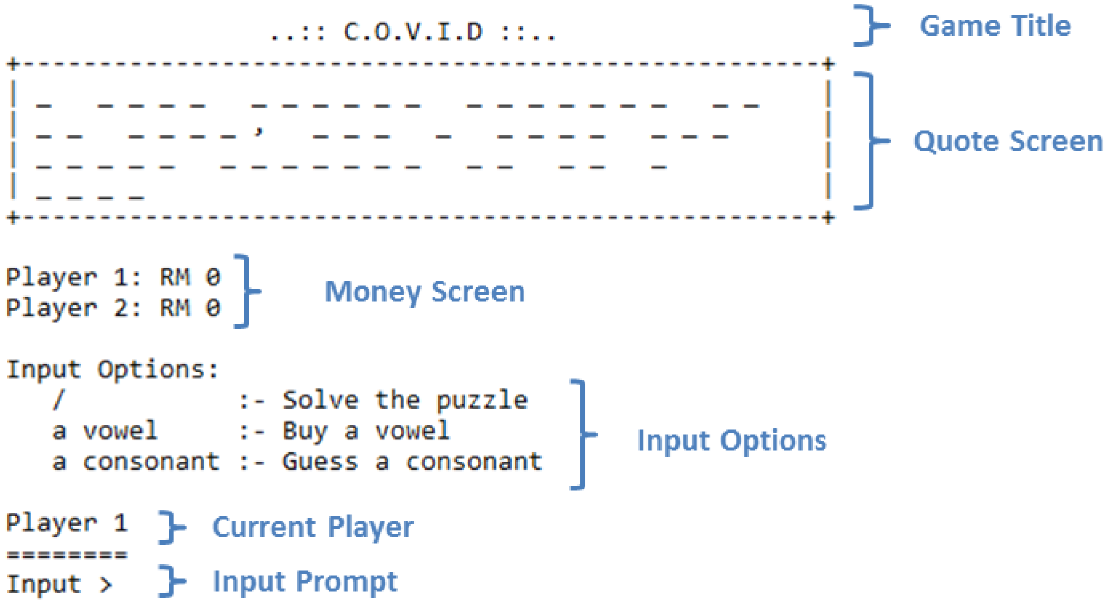
Program Requirements

Here are the requirements that your program must satisfy to get **FULL** marks. You should read this while running `game.exe` for better understanding.

(A) Interface and Appearance

1) **Main Interface**
The Main interface is always shown at the top of the command prompt. It contains several parts: **Game Title, Quote Screen, Money Screen, Input Options, Current Player, and Input Prompt**. The example below illustrates each part clearly.

Example:



```
                 ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| _   _ _ _ _   _ _ _ _ _ _   _ _ _ _ _ _ _   _ _    |
| _ _   _ _ _ _ ,   _ _ _   _   _ _ _ _   _ _ _      |
| _ _ _ _ _   _ _ _ _ _ _ _   _ _   _ _   _          |
| _ _ _ _                                            |
+----------------------------------------------------+

Player 1: RM 0
Player 2: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input >
```

(a) **Quote Screen**: This part shows the blank quote puzzle in which underscore indicates a hidden letter.
(b) **Money Screen**: This part shows the money each player has earned so far.
(c) **Input Prompt**: This part waits for player's input.

(B) Program Logic

1) Initially, the game loads a list of quotes from a text file named **`quotes.txt`** to a list variable. Then, a quote is randomly selected from the list variable for the quote puzzle. This is followed by the display of **Main Interface** before the game begins.
   [HINTS: Check out **`Covid.py`**, one of the starter kit codes, for help.]

```
                  ..:: C.O.V.I.D ::..
+------------------------------------------------------+
| _ _ _ _ _   _ _   _ _ _ _ _ _ _   _ _ _ _ _ _      |
| _ _ _ _   _ _   _ _ _   _ _ _   _ _ _ _ _ _ _ _    |
| _ _ _ _ _   _ _   _ _                              |
+------------------------------------------------------+

Player 1: RM 0
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input >
```

2) To play the game, the player chooses which operation to perform according to **Input Options**. The valid input is either **<u>an alphabet (regardless of letter case) or a forward slash (/)</u>**. If the player enters any input that is invalid, an error message is shown to indicate the input is invalid. The player is allowed to enter an input again until the input is valid.

```
                  ..:: C.O.V.I.D ::..
+------------------------------------------------------+
| _ _ _ _ _   _ _   _ _ _ _ _ _ _   _ _ _ _ _ _      |
| _ _ _ _   _ _   _ _ _   _ _ _   _ _ _ _ _ _ _ _    |
| _ _ _ _ _   _ _   _ _                              |
+------------------------------------------------------+

Player 1: RM 0
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
```

```
                  ..:: C.O.V.I.D ::..
+------------------------------------------------------+
| _ _ _ _ _   _ _   _ _ _ _ _ _ _   _ _ _ _ _ _      |
| _ _ _ _   _ _   _ _ _   _ _ _   _ _ _ _ _ _ _ _    |
| _ _ _ _ _   _ _   _ _                              |
+------------------------------------------------------+

Player 1: RM 0
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > gg
Invalid Input.
Input >
```

```
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > 1
Invalid Input.
Input >
```

3) If player enters a **forward slash (/)**, the player will be prompted to enter his solution to the puzzle. The **solution entered must be similar to the quote (including punctuations, if any), except for the letter case**. If the solution is correct, **the player's money is doubled** and the game ends. This is followed by the requirement stated in item (12) below. If the solution is wrong, a message indicating so is shown. The player will lose its turn for the other player to play.

```
                   ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| _ _ _ _ _   _ _   _ _ _ _ _ _ _   _ _ _ _ _ _      |
| _ _ _ _   _ _   _ _ _   _ _ _   _ _ _ _ _ _ _ _    |
| _ _ _ _ _   _ _   _ _                              |
+----------------------------------------------------+


Player 1: RM 0
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > /
Solve It > justin bieber and selena gomez
WRONG SOLUTION!
You turn ends. Press ENTER to end turn.
```

```
                   ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| T H E R E   I S   N O T H I N G   E I T H E R      |
| G O O D   O R   B _ D   B U T   T H I N K I N G    |
| M _ K E S   I T   S O                              |
+----------------------------------------------------+


Player 1: RM 5800
Player 2: RM 1000
Player 3: RM 1400

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > /
Solve It > there is nothing either good or bad but thinking makes it
so
Congratulations! You have solved it. Your money is doubled.
```

4) If the player enters a vowel, this means he intends to **buy a vowel**. The game will first check whether the vowel entered has been taken before (i.e. appears in **Quote Screen**). If so, the game informs the player about it and the player is allowed to input again.

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| T H E _ E   _ _   _ _ T H _ _ _   E _ T H E _      |
| _ _ _ _   _ _   B A _   B U T   T H _ _ _ _ _ _    |
| _ A _ E _   _ T   _ _                              |
+----------------------------------------------------+

Player 1: RM 7000
Player 2: RM 2200
Player 3: RM 600

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > e
Letter E has been taken.
Press ENTER to continue play.
```

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| T H E _ E   _ _   _ _ T H _ _ _   E _ T H E _      |
| _ _ _ _   _ _   B A _   B U T   T H _ _ _ _ _ _    |
| _ A _ E _   _ T   _ _                              |
+----------------------------------------------------+

Player 1: RM 7000
Player 2: RM 2200
Player 3: RM 600

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > A
Letter A has been taken.
Press ENTER to continue play.
```

5) If the vowel is not already in **Quote Screen**, then the game will check the vowel's existence in the quote and count its occurrence. If the vowel does not exist in the quote, the game will inform the player about it, and the player loses his turn.

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| N O   L _ G _ C _   _ S   S O   _ _ _ C _   _ S    |
| _ O N _ S T _                                      |
+----------------------------------------------------+

Player 1: RM 3400
Player 2: RM 3700
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant
```

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L _ V E   _ _ _ _ _ T   _ _   _ _ _ _ ,   _ _ T    |
| _ _ V E N   _ N _ _ _ _ _ T ,   _ _   _ E T T E R  |
+----------------------------------------------------+

Player 1: RM 5500
Player 2: RM 3000
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant
```

```
Player 2
========
Input > u
Sorry. There is no letter U.
Your turn ends. Press ENTER to end turn.
```

```
Player 2
========
Input > a
Sorry. There is no letter A.
Your turn ends. Press ENTER to end turn.
```

6) However, if the vowel exists, the game will calculate the cost of buying the vowel, which is the number of its occurrence multiplied by RM200 (i.e. price per vowel). Then, the game will check if the player has sufficient money to cover the cost. If so, the player's money is deducted by the cost to buy the vowel, and the game will display the vowel's number of occurrence and the cost the player has spent to buy the vowel. If the player does not have sufficient money, the game will inform the player that he has insufficient money to buy the vowel. In either case, the player does not lose his turn and therefore can continue play.

```
                   ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| _ _ _ _   _ _ _ _ _ _   _ _   _ _ _ _ ,   _ _ _    |
| _ _ _ _ _   _ _ _ _ _ _ _ _ ,   _ _   _ _ _ _ _ _  |
+----------------------------------------------------+

Player 1: RM 0
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > o
Insufficient money.
Press ENTER to continue play.
```

```
                   ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L _ _ _   _ _ _ _ _ _   _ _   _ _ _ _ ,   B _ _    |
| _ _ _ _ _   _ _ _ _ _ _ _ _ ,   _ _   B _ _ _ _ _  |
+----------------------------------------------------+

Player 1: RM 2800
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > u
Found 4 letter U.
You spent RM 800.
Press ENTER to continue play.
```

7) If the player **enters a consonant**, it means he intends to guess a consonant. Similar to the case for vowel, the game will first check whether the consonant has been taken, and also whether the consonant exists. The game handles the events of consonant being taken and of consonant does not exists in the same way as those for vowel, stated in item (4) and (5).

```
                   ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L _ _ _   _ _ U _ _ _   _ _   _ _ _ _ ,   B U _    |
```

```
                   ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L _ _ _   _ _ U _ _ _   _ _   _ _ _ _ ,   B U _    |
| _ _ _ _ _   U _ _ _ U _ _ _ ,   _ _   B _ _ _ _ _  |
+----------------------------------------------------+

Player 1: RM 2000
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > l
Letter L has been taken.
Press ENTER to continue play.
```

```
| _ _ _ _ _   U _ _ _ U _ _ _ ,   _ _   B _ _ _ _ _  |
+----------------------------------------------------+

Player 1: RM 2000
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > x
Sorry. There is no letter X.
Your turn ends. Press ENTER to end turn.
```

8) If the consonant exists, then the game will determine the prize per consonant by rolling the **dice mentioned in item (8) of Problem Description**. If the dice value is an amount in RM, the total amount earned by the player is the consonant's number of occurrence multiplied by the dice value. The game will show the dice value, the consonant's number of occurrence, and the total amount earned by the player. If the dice value is "Bankrupt" or "Lose a turn", the player will lose his turn, with "Bankrupt" also resets the player's money to zero.

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L _ _ _   _ _ U _ _ _   _ _   _ _ _ _ ,   B U _    |
| _ _ _ _ _   U _ _ _ U _ _ _ ,   _ _   B _ _ _ _ _  |
+----------------------------------------------------+

Player 1: RM 2000
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > g
You rolled "RM900".
```

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L _ _ _   _ _ U G H T   _ _   G _ _ _ ,   B U T    |
| G _ _ _ _   U _ _ _ U G H T ,   _ _   B _ T T _ _  |
+----------------------------------------------------+

Player 1: RM 2000
Player 2: RM 9400
Player 3: RM 500

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > d
You rolled "Bankrupt".
```

```
Found 4 letter G.
You earned RM 3600.
Press ENTER to continue play.
```

```
Sorry, you lose all your money.
Your turn ends. Press ENTER to end turn.
```

9) Apart from these input options, the game also secretly supports the illegal **cheat command**, which comes in two forms. The first form is just the word “**CHEAT**” without the quotes and it is **not case-sensitive**. Upon typing the cheat command, the game will **hint the player on which available consonant has the highest frequency**. For example, if the quote is “BIEBER AND BARBER” and the Quote Screen is showing “B_EBE_ A_D BA_BE_”, the cheat command will indicate that consonant ‘R’ and its frequency, instead of consonant ‘B’ because ‘B’ has already been taken. If there are two or more available consonants with the same highest frequency, the game can show either one. If there are no more available consonants, the game will indicate so.

```
               ..:: C.O.V.I.D ::..
+-------------------------------------------------+
| B _ E B E _   A _ D   B A _ B E _               |
+-------------------------------------------------+

Player 1: RM 3000
Player 2: RM 0
Player 3: RM 800

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 3
========
Input > chEAt
There are 3 letter R.
Press ENTER to continue play.
```

```
               ..:: C.O.V.I.D ::..
+-------------------------------------------------+
| B _ E B E R   A N D   B A R B E R               |
+-------------------------------------------------+

Player 1: RM 5700
Player 2: RM 900
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > CHeaT
Sorry, no more consonants available.
Press ENTER to continue play.
```

10) The second form of the cheat command is “**CHEAT *m***”, where m must be a positive integer. Just like the first form, the word “CHEAT” is **not case-sensitive**. Upon entered, the game will change the player’s money to ***m*,** and the player’s turn is ended. If ***m*** is invalid (i.e. not a positive integer), the game must notify the player and allow the player to continue play and input again.

```
               ..:: C.O.V.I.D ::..
+-------------------------------------------------+
| _ _ _ _ _ _   _ _ _   _ _ _ _ _ _               |
+-------------------------------------------------+
```

```
               ..:: C.O.V.I.D ::..
+-------------------------------------------------+
| _ _ _ _ _ _   _ _ _   _ _ _ _ _ _               |
+-------------------------------------------------+
Player 1: RM 0
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 1
========
Input > cheat 1234
Money changed to RM 1234.
Your turn ends. Press ENTER to end turn.
```

```
Player 1: RM 1234
Player 2: RM 0
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > cheat -123
Invalid Input.
Input > cheat abc
Invalid Input.
Input >
```

11) Each player can use the cheat command **only once**, regardless of which form has been used. If any player attempts to use the cheat command more than once, the game will notify the player and allow the player to continue play.

```
               ..:: C.O.V.I.D ::..
+-------------------------------------------------+
| B _ E B E R   A N D   B A R B E R               |
+-------------------------------------------------+

Player 1: RM 5700
Player 2: RM 900
Player 3: RM 0

Input Options:
   /           :- Solve the puzzle
   a vowel     :- Buy a vowel
   a consonant :- Guess a consonant

Player 2
========
Input > cheat
No more cheat available.
Press ENTER to continue play.
```

12) The game continues to run, with the **screen of the command prompt cleared** for new input to be entered. The game will only ends when a player has correctly solved the puzzle, either though guessing the last available alphabet correctly or solving the puzzle correctly. When the game ends, it will show **Quote Screen** revealing all hidden letters in the quote, the players' money, and the winner. The winner is determined by the player with the highest amount of money. If there are more than one winners (very unlikely), display them all. If all players have the same money, it is considered a tie.

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L O V E   S O U G H T   I S   G O O D ,   B U T    |
| G I V E N   U N S O U G H T ,   I S   B E T T E R  |
+----------------------------------------------------+

Player 1: RM 1900
Player 2: RM 2000
Player 3: RM 0

Player 2 wins.

Game Ends.
```

```
                  ..:: C.O.V.I.D ::..
+----------------------------------------------------+
| L O V E   S O U G H T   I S   G O O D ,   B U T    |
| G I V E N   U N S O U G H T ,   I S   B E T T E R  |
+----------------------------------------------------+

Player 1: RM 500
Player 2: RM 500
Player 3: RM 500

It's a tie.

Game Ends.
```

Source Code Requirements

Your source code must be able to be interpreted without errors with **Python 3.7 Interpreter or later** running on a **Windows machine (Windows 7 or later)**. If your source code cannot be interpreted, you get **ZERO for your whole assignment**. Once your code successfully runs, the following requirements are evaluated.

(A) Documentation and Comments

Best if your code is self-explanatory, that is, your identifiers are very well-named and your readers know their purposes without extra explanation. In situations where this is hard to achieve, you should add short comments to explain the purpose of declaring a variable or a block of code.

Deliverables

You are to submit the following for this assignment:

1. ONE (1) Python source code for the program with appropriate comments inside the code. Insert your information at the beginning of the file as follows:

    ```
    # *********************************************************
    # Program: YOUR_FILENAME.py
    # Course: PSP0101 PROBLEM SOLVING AND PROGRAM DESIGN
    # Class: TT0?
    # Year: 2020/21 Trimester 1
    # Names: MEMBER_NAME_1 | MEMBER_NAME_2 | MEMBER_NAME_3
    # IDs: MEMBER_ID_1 | MEMBER_ID_2 | MEMBER_ID_3
    # Emails: MEMBER_EMAIL_1 | MEMBER_EMAIL_2 | MEMBER_EMAIL_3
    # Phones: MEMBER_PHONE_1 | MEMBER_PHONE_2 | MEMBER_PHONE_3
    # *********************************************************
    ```

Submission Instructions

Submit the SOFTCOPY of your deliverables to Google Classroom. Detail instructions on how to upload your deliverable will be announced in the MMLS.

To prepare your submission, you must strictly follow the instructions below. Failure to follow any of the instructions below will result in mark deduction:

1. Name your .py file following the following format:

   ```
   GIVENNAME1-GIVENNAME2
   ```

   (a) `GIVENNAME#` – The given name of member # as seen in CamSys. Replace spaces with underscores (_) as NO SPACE IS ALLOWED. You may use short names if your name is too long (e.g. Mohd for Mohammad, etc.).

   Example:

   ```
   JUSTIN_BIEBER-SELENA_GOMEZ.py
   ```

2. Put your Deliverables in a folder, and name the folder similarly as your Python filename (without the .py extension of course).

3. Compress your folder as a ZIP archive (We recommend 7-Zip software for this task, but you can use any software that you know). At this point, your ZIP archive should contain a folder that contains your Deliverables.

4. Double check your ZIP file before submitting to ensure that you have submitted the correct code and the code can be interpreted and run on Windows machine.

Interview

You might be asked to attend a virtual interview session to justify your contribution to your work. Details about the interview, if any, will be informed through MMLS announcement.

Plagiarism

It is normal to seek help from friends or from online resources when you do the assignment, However, seeking help should not go overboard, to the point of getting (or even paying) someone to complete the assignment partly or fully for you, copying from online resources without understanding, or doing any means with the intention to cheat. For this assignment, plagiarism means the following:

(a) Turning in a work that, from the examiner's point of view, you do not sufficiently understand.
(b) Turning in someone else's work (whether partly or fully) as your own.
(c) To use another's work (whether partly or fully) without crediting the source.
(d) Any means of cheating.

Plagiarism is a serious offence.

We will give ZERO (0) marks to students who plagiarize AND to students who intentionally or unintentionally help other students to plagiarize by giving all or some of their code.

Evaluation Marksheet

Criteria / Features	Marks allocation	Marks
(A) Interface and Appearance		
Main Interface [2m]	[2m] Satisfy ALL Main Interface requirements. [0m] Missed any Main Interface requirements.	/ 2
(B) Program Logic		
Number of Players [2m]	[2m] Supports 3 players with correct change of turns. [1m] Supports 3 players with mistakes on change of turns, or supports 2 players only. [0m] Any other cases.	/ 2
Operation Input Validation [2m]	[2m] Satisfy ALL Program Logic (2) requirements. [1m] The examiner can find at least ONE input validated incorrectly. [0m] Any other cases.	/ 2
Solve the Puzzle [2m]	[2m] Satisfy ALL Program Logic (3) requirements. [1m] Satisfy SOME Program Logic (3) requirements. [0m] Any other cases.	/ 2
Buy a Vowel [4m]	[4m] Satisfy ALL Program Logic (4), (5), and (6) requirements. [3m] Satisfy ALL Program Logic (4), (5), and (6) requirements, but with minor error(s). [2m] Satisfy ANY TWO Program Logic (4), (5), (6) FULLY, the rest PARTLY. [1m] Satisfy ANY ONE Program Logic (4), (5), (6) FULLY, the rest PARTLY. [0m] Any other cases.	/ 4
Guess a Consonant [4m]	[4m] Satisfy ALL Program Logic (7) and (8) requirements. [3m] Satisfy ALL Program Logic (7) and (8) requirements, but with minor error(s). [2m] Satisfy ANY TWO Program Logic (7) and (8) FULLY, the rest PARTLY. [1m] Satisfy ANY ONE Program Logic (7) and (8) FULLY, the rest PARTLY. [0m] Any other cases.	/ 4
Cheat command [6m]	[6m] Satisfy ALL Program Logic (9), (10), and (11) requirements. [4m] Satisfy ALL Program Logic (9), (10), and (11) requirements, but with minor error(s). [2m] Satisfy ANY TWO Program Logic (9), (10), (11) FULLY, the rest PARTLY. [1m] Satisfy ANY ONE Program Logic (9), (10), (11) FULLY, the rest PARTLY. [0m] Any other cases.	/ 6
Game Ends [2m]	[2m] Satisfy ALL Program Logic (12) requirements. [1m] Satisfy SOME Program Logic (12) requirements. [0m] Any other cases.	/ 2
(C) Error Handling		
Runtime Error [2m]	[2m] Perfect – The examiner cannot find any runtime error on all tests.	/ 2

	[0m] Imperfect – The examiner finds at least ONE runtime error in one of the tests.	
(D) Source Code		
Documentation and comments [2m]	[2m] Comments and variable naming sufficiently makes the code easy to read. [0m] The examiner finds the code difficult to understand.	/ 2
(E) Deliverables and Submissions		
Follows Instruction [2m]	[2m] Follow ALL instructions – NO instruction violated [0m] Follow PARTIAL instructions – At least ONE instruction violated	/ 2
TOTAL:		**/ 30**
Plagiarism = 0 (False) or 1 (True)		**/ 1**
Coursework = Total x Piagiarism		**/ 30%**

END OF ASSIGNMENT