User interface - Logics of inputs and outputs

1. **Entrance**

**1.1 Welcome**

**output:** ‘Welcome to the game! Let’s find the murderer!’

Go to 1.2.

**1.2 Rule Introduction**

**output:** ‘Rule introduction - A person was murdered, and the murderer is unknown until the end of the game. Each person has a unique combination of attributes. You can make a guess of the murderer with his/her attributes. Before guessing you can ask for random clues which will show attributes of a person and whether he/she is suspect or innocent. A person is considered a ‘suspect’ if at least one attribute matches those of the murderer. A person is considered an ‘innocent’ if no attributes matches the murderer’s. Clear now?

Yes, I get it! - Select 1.

No, I haven't known the rule clearly. - Select 2.’

**if input: ‘**1.’

**output:** ‘Great, let’s do it, good luck!’

Go to 2.1.

**else if** **input:** ‘2.’

**output:** ‘Let’s see an example to help you figure out how it works!

Let’s suppose the murderer has the attribute ‘The oldwoman dressed in yellow with knife’ (of course it’s a secret until you guess so). You start asking for clues and the game will show you random persons like:

‘The youngwoman dressed in brown with gun- innocent!’

‘The youngwoman dressed in yellow with poison- suspect!’

Now you can say that the murderer must have at least one of yellow or poison because youngwoman is innocent according to clue no. 1.

When you get enough clues, you give a guess about who the murderer was.

Go to 2.1.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 1.2.

1. **Functions**

**2.1 Create a new murderer and counter**

person(AG,C,W,T),

counter = 0,

Go to 2.2.

**2.2 Functions catalogue**

**output:** To ask for a new clue - Select 1.

To guess the murderer - Select 2.

To view the last clue - Select 3.

To view all suspects - Select 4.

To view all innocents - Select 5.

To exit the game - Select 6.

**if** **input:** ‘1.’

Go to 2.3.

**else if** **input:** ‘2.’

Go to 2.4.

**else if** **input:** ‘3.’

Go to 2.5.

**else if** **input:** ‘4.’

Go to 2.6.

**else if** **input:** ‘5.’

Go to 2.7.

**else if** **input:** ‘6.’

Go to 2.8.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 2.2.

**2.3 To ask for a new clue**

if there are still arrays can use

**output**: ‘The *AG* dressing in *C* with *W* is *T'*

Counter = counter+1

Go to 2.2.

**else output:** ‘You have known all clues.’

Go to 2.2.

**2.4 To guess the murderer**

**2.4.1 To give a guess in age&gender**

**output:** ‘Guess the age and gender:

[first element in listAG] - Select 1.

[second element in listAG] - Select 2.

…

[nth element in listAG] - Select n.’

**if** **input:** 1-n(integer).

Go to 2.4.2.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 2.4.1.

**2.4.2 To give a guess in colour**

**output:** ‘Guess the dress colour:

[first element in listC] - Select 1.

[second element in listC] - Select 2.

…

[nth element in listC] - Select n.’

**if** **input:** 1-n(integer).

Go to 2.4.3.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 2.4.2.

**2.4.3 To give a guess in weapon**

**output:** ‘Guess the weapon:

[first element in listW] - Select 1.

[second element in listW] - Select 2.

…

[nth element in listW] - Select n.’

**if** **input:** 1-n(integer).

Go to 2.4.4.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 2.4.3

**2.4.4 Compare guess with murderer**

**if**  [guessAG,guessC,guessW,returnT] == [AG,C,W,T]

**output:** ‘Congratulations! You found the murderer!

Your deduction required *counter* person(s)!

To start a new game - Select 1.

To exit the game - Select 2.’

**if input:** ‘1.’

Go to 2.1.

**else if** **input:** ‘2.’

Go to 2.8.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 2.4.4.

**else output:** ‘Sorry, wrong guess.

The murderer is the *AG* dressing in *C* with *W*.

To start a new game - Select 1.

To exit the game - Select 2.’,

**if input:** ‘1.’

Go to 2.1.

**else if** **input:** ‘2.’

Go to 2.8.

**else output:** ‘Sorry, invalid input, please make your choice from the following selection:’,

Go to 2.4.4.

**2.5 To view the last clue**

**If** there is a clue

**output:** ‘The *AG* dressed in *C* with *W* is *T’*,

Go to 2.2.

**else output:** ‘You have not known any clues.’

Go to 2.2.

**2.6 To view suspects so far**

**if** there are suspects

**output:** ‘suspects list:

The *AG* dressed in *C* with *W* is *suspect’*,

Go to 2.2.

**else output:** ‘You have not known any suspects.’

Go to 2.2.

**2.7 To view innocents so far**

**if** there are innocents

**output:** ‘innocents list

The *AG* dressed in *C* with *W* is *innocent’*,

Go to 2.2.

**else output:** ‘You have not known any innocents.’

Go to 2.2.

**2.8 To exit the game**

**output:** ‘Bye Bye!’