**Task 3**

Given steps:

1. Allows two players to enter their details, which are then authenticated, to ensure that they are authorised players.

2. Shuffles the 30 cards in the deck.

3. Allows each player to take a card from the top of the deck. Play continues until there are no cards

left in the deck.

4. Calculates the winner and allocates both cards to the winner.

5. Displays which player wins (the player with the most cards).

6. Lists all of the cards held by the winning player.

7. Stores the name and quantity of cards of the winning player in an

external file.

8. Displays the name and quantity of cards of the 5 players with the highest quantity of cards from the external file.

Re-summarised:

Needed files:

- File of authenticated players in the form name, password

- File of cards in deck in the form Color number

- File of high scores in the form score name

Needed features:

- Text parser

- Authentication system

- Shuffle function

- Card drawing

- Active card comparison

- Player possession of specific cards

Steps:

- Both players enter details & program authenticates them

- Shuffle deck

- Each player draws a card

- Compare cards (if same colour, highest number wins, else red beats black, yellow beats red, black beats yellow)

- Winning player takes both cards

- Draw new cards

- Repeat until all cards have been drawn

- Player with most cards wins

- Save score to file and display high scores

Decisions:

I have chosen Python as my language of choice.