

Worksheet 3

Miscellaneous Exercises

Problem 1:

Explain the differences between the attributes `firstname`, `lastname`, and `job`. What values can they have for different instances of the class?

```
class Hanks:
    lastname = "Hanks"
    job = "software engineer"
    def __init__(self, firstname, job = None):
        self.firstname = firstname
        if job is not None:
            self.job = job
```

Capstone Project: MaxHandWins

Problem 2:

Create a `Game` class, this class is the container of all objects in the game. Specifically, the `Game` class should have the following attributes.

`players`: this is a list of all players participating in the game.
`deck`: this is an instance of the `Deck` class that we created previously.
`score`: to keep the score of how many rounds each player won.

HINT: Don't forget to initialize the scores of the players to 0s.

Problem 3:

For the `Game` class, create a method `show_score` that prints the scores of all players on the screen.

Problem 4:

In the `Game` class, create a method `play_round` that simulates going through one round of the game.

Here is how a game round looks like:

- 1- Each player draws two cards from the deck.
- 2- Each player shows the strongest card in his hand, the player with the strongest card overall wins the round.
- 3- The scoreboard is updated.