MET CS-521 Final Project (Spring 2020)

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**Text Based - UNO game**

For my final project, I have implemented a text-based version of UNO game. This is a text-based game and played on command line.

In this classic game of UNO, there are 108 cards: four suits, Red, Green, Yellow and Blue, each consisting of one 0 card, and two 1-9 cards; two *Draw 2* cards; two *Skip cards*; and two *Reverse* cards. In addition, there are four *Wild* cards and four *Wild Draw 4* cards.

This is a multi-player game with players ranging from 2 to 4.

Initial Setup:

1. At the start of game, players will be asked to input their names.
2. A deck will be created with 108 cards.
3. Each player will be given a hand of 7 cards.
4. A discard pile will be created which will have all the cards that are already played.

Rules:

1. Every player has to play a valid card. By valid card, I mean either the index of card should match or the color of card should match the one card that is displayed on screen. Player can also play a Wild or Wild Draw 4 card on any index or color.
2. When player plays a Wild card, he is asked to select a new color for game. When Wild draw 4 card is played, player has to define the new color as well as the next player has to draw 4 cards and his turn will be skipped.
3. Skip card: Will skip the turn of next player
4. Reverse card: Change the direction of game clockwise to counterclockwise or vice versa
5. Draw 2: Allows the next player to draw 2 cards and his turn will be skipped.

The player who first discards all the cards in his hand is the Winner.

**Classes Used in program:**

1. UnExpectedValueError: To handle the invalid input entered by user
2. UnoCard: Return instance of a card as a string with card index and color
3. Player: Returns instance of a player as a string with player’s name and his hand of cards.
4. Deck: To create deck and check for empty deck
5. Game: Main functioning of game play

**Requirements:**

Python 3.8

**Instructions to run the program:**

1. Download the project folder.
2. Using the cmd prompt, go to project directory.
3. Run python uno.py