CSE 121B

WEEK 3 – HILO GAME

TEAM ASSIGNMENT

***How did you apply abstraction in your program’s design?***

Hilo game consists of 2 parts. Part one, includes presenting a card to the player, and obtaining his input to start the game. The second part where, using the player's input, the game validates the input versus the next card obtained and therefore, it updates the current score. After this validation, the program will confirm if player has enough points to continue the game or not. If enough points remain, the player will have the chance to decide to continue the game.

Considering these dynamics of the game, we are using abstraction by dividing the code into 2 classes as follows:

The first class contains an object named Dealer.

* The responsibility of this class is to control the sequence of the play
* This class will contain the following functions (behaviors) and variables (states):

BEHAVIORS:

start\_game (): Starts the game by running the main game loop.

get\_input (): Ask the user to guess if the next card is higher or lower, and confirm the input is entered correctly (either "h" or "l" only). After the input is validated, call the function draw(self) and display a new card.

output (): A method that determines the score for one round of play

update\_points(self): A method that determines the score for the entire game

play\_again (): Ask the user if he wants to play another round.

STATES:

card(int): The value of the card drawn

is\_playing (boolean): Whether or not the game is being played.

guess\_card(int): The value of card guessed

guess(string): The guess input by the user (higher or lower)

new\_points (int): The score for one round of play.

points (int): The score for the entire game.

The second class contains an object named Display\_card.

- The responsibility of this class is displaying the cards, one at a time whenever it is invoked.

- This class contains one function and one state as follows:

BEHAVIOR:

drawn ():Draws a new card between 1 and 13, and return the number of the card.

STATE

card\_number (int): chooses a number of card randomly.