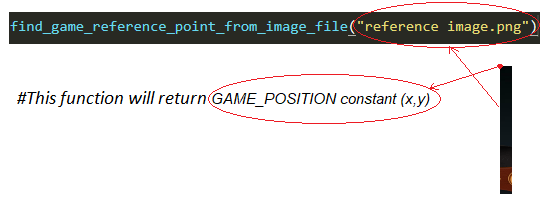
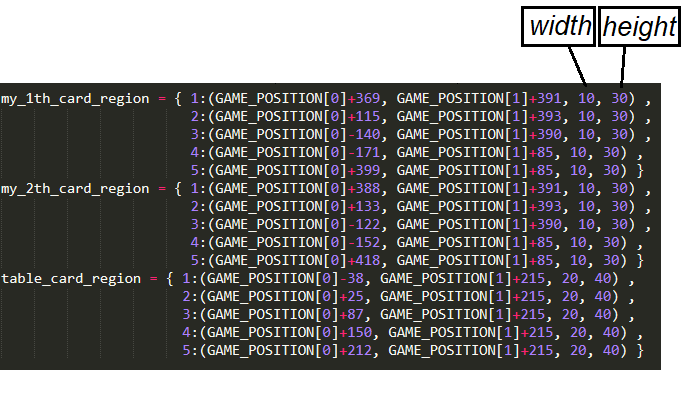
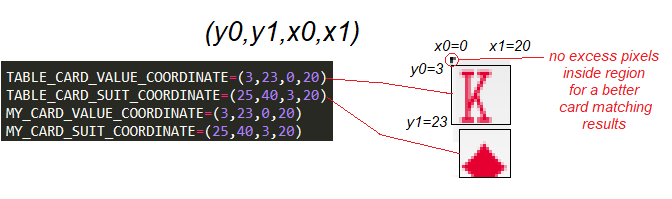
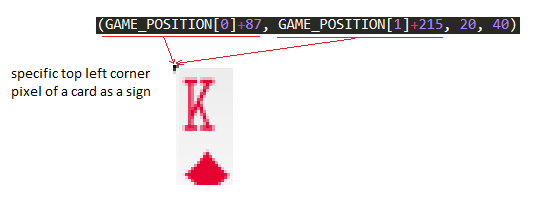
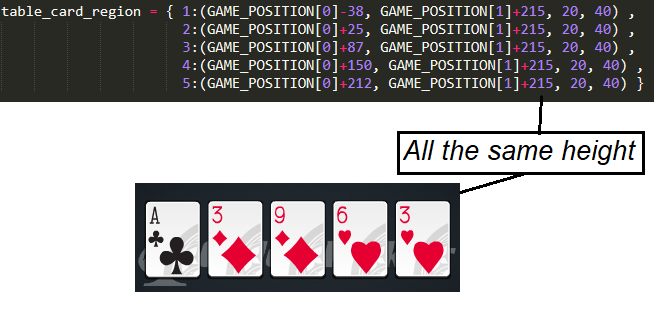
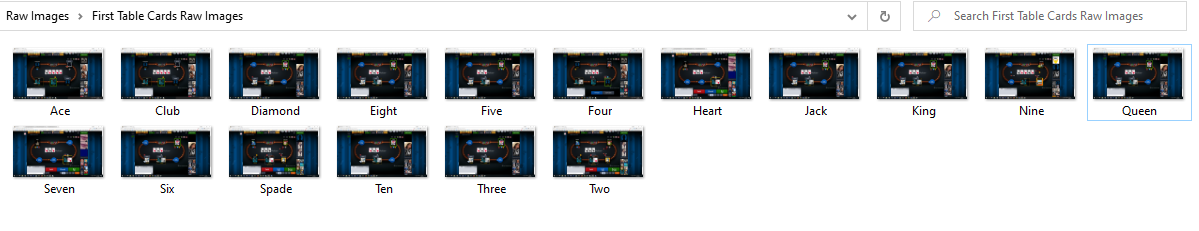
**Creating source cards manual**

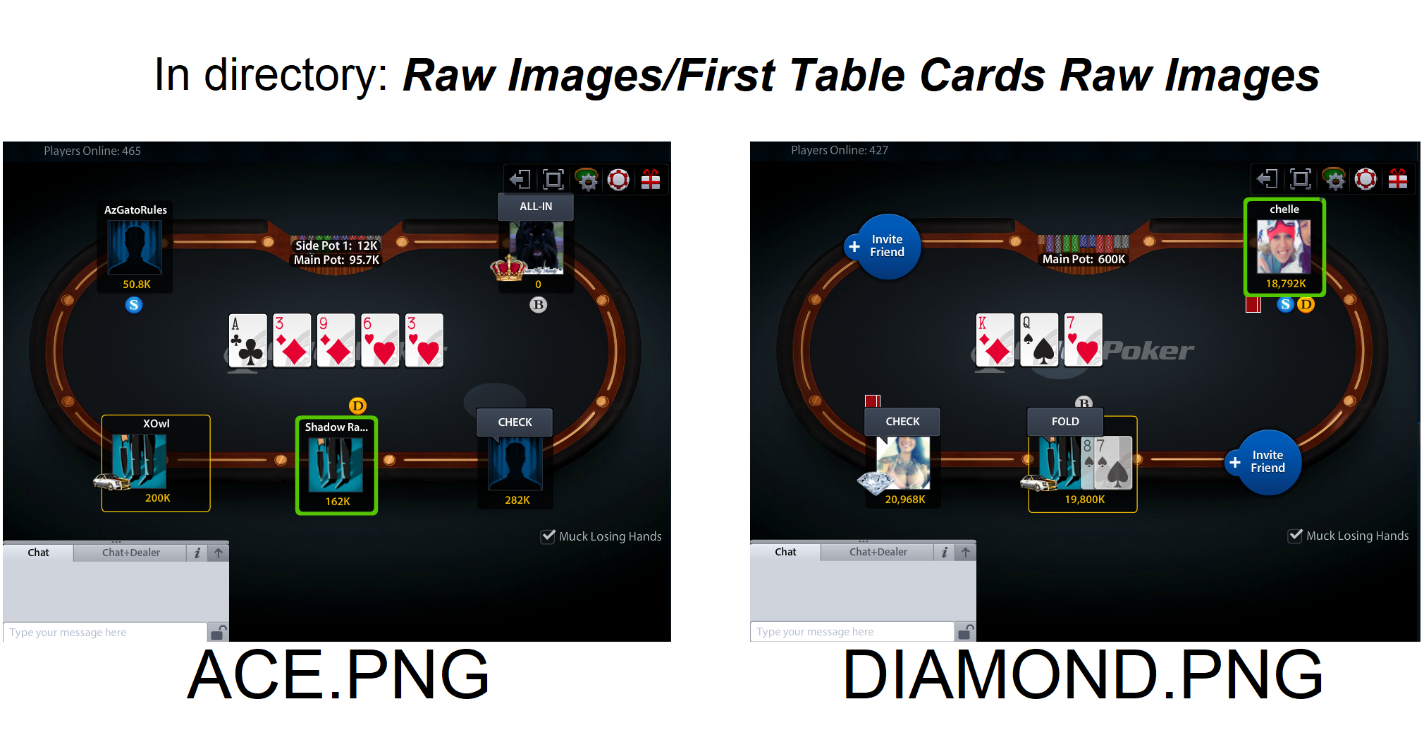
1. Crop and create a sub image from the table to use it as a ***reference image.png*** to set GAME\_POSITION constant (x,y)



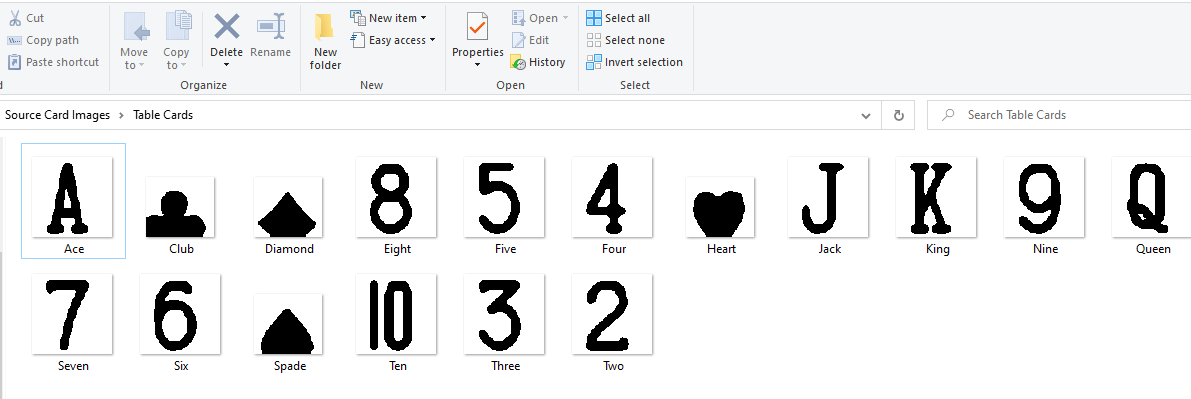
1. Find the other card coordinates in accordance with GAME\_POSITION constant.
2. Set all 15 cards regions (5 table cards + 10 cards of mine if table is 5 player) inside ***crop\_raw\_card\_image()*** function at ***create\_source\_cards\_images.py*** module.
3. Set these coordinate as global constants at the beginning of ***create\_source\_cards\_images.py*** module like below to crop suit and value from a card. (suit and value coordinates of table cards may differ from my cards, because the table card sizes may differ from my card sizes.)

**Notes:**

1. Use specific top left corner pixel of a card as a sign to find and set similar card regions. 
2. Set top left corner of table card regions to the same height from game position reference point.
3. Fill ***'Raw Images/First Table Cards Raw Images'***  and ***'Raw Images/My First Cards From First Seat Raw Images'*** directories with 17 Sample cards .*png* images for each(13 value cards + 4 suit cards). And name the images like below:

****

1. As the last step Run ***main()*** function at ***create\_source\_cards\_images.py*** module, to create source cards Images.

***‘Source Card Images\Table Cards’***  directory should looks like below:

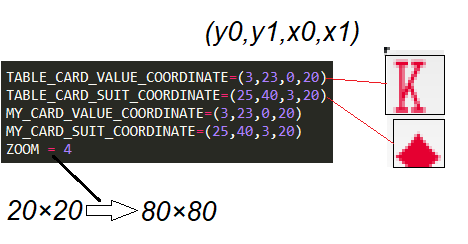
The source cards images are resized ×4, gray scaled, suit and values are cropped separately, and changed by threshold effect.

**Prerequisite for testing read\_card.py module**

**1.**

**1.1.** Set these global constants at the beginning of **create\_source\_cards\_images.py** and **match\_card.py** modules the same:

***TABLE\_CARD\_VALUE\_COORDINATE***, ***TABLE\_CARD\_SUIT\_COORDINATE***,

***MY\_CARD\_VALUE\_COORDINATE***, ***MY\_CARD\_SUIT\_COORDINATE***, ***ZOOM***

**1.2.** Functions they are used in:

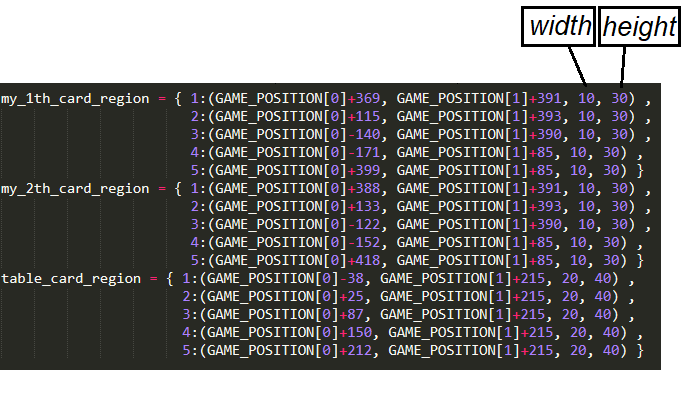
***create\_source\_cards\_images.create\_source\_cards()***

and ***match\_card.pre\_process\_query\_image()***

**2.**

**2.1.** Set these constants the same between **create\_source\_cards\_images.py** and **read\_cards.py**:

***my\_1th\_card\_region***, ***my\_2th\_card\_region***, ***and table\_card\_region***



**2.2.** Functions they are used in:

***create\_source\_cards\_images.crop\_raw\_card\_image()***

and ***read\_card.download\_my\_card() read\_card.download\_table\_card()***