Week 7

String and photo processing

Week 7
Today’s Tasks

Tasks for Today!

- Tasks
  - Grading 2
  - Skewing

Task 1 | Grading 2

1st – 7th	A+
8th – 15th	A0
16th – 22nd	B+
23rd – 30th	B0
31st – 37th	C+
38th – 45th	C0
46th 50th	D+

- We use the same list in Grading 1

theory_point_list = [(27, ‘Russell Sharp’) …]

1. make_grade_dictionary

Goal: Return a dictionary whose key is a letter grade (String) and value is a list of tuples with a theory point and a name

Ex) `grade_dic["B0"]`

```
[(55, 'Kit Anderson'), (54, 'Hugh Lawson'), (50, 'Lionel Stephens'), (46, 'Jocelyn Gross'), (46, 'Miriam Currey'), (44, 'Adele Robinett'), (40, 'Theo Williamson'), (38, 'Melody Henry')]
```

Task 1 | Grading 2

2. print_gradetable(grade_dic)

Goal: Print grade table of all students in a nice format

- Use formatting operator, “16s%4d%3s"%(name,theory_point,grade)
- The order should be sorted by highest theory point

```
     Zach Mendoza 100 A+
       Edwin Reid 100 A+
       Vera Craig  97 A+
        Peter Law  96 A+
   Ferris Gregory  95 A+
   Camelia Horton  93 A+
Doran Cunningham  92 A+
     Edie Vasquez  91 A0
```

Task 2 | Skewing

- Create the image skewed on an angle from the **vertical**

img

Input

Direction

Angle

Vertical 30

Vertical -30

Output

Task 2 | Skewing

- Create the image skewed on an angle from the **horizontal**

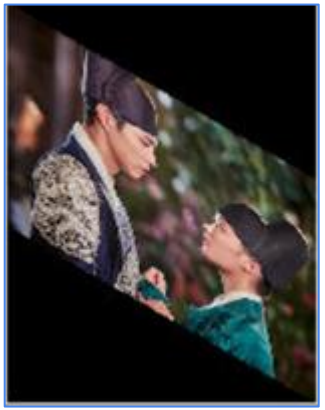
img

Input

Direction

Angle

Horizontal 30



Horizontal -30

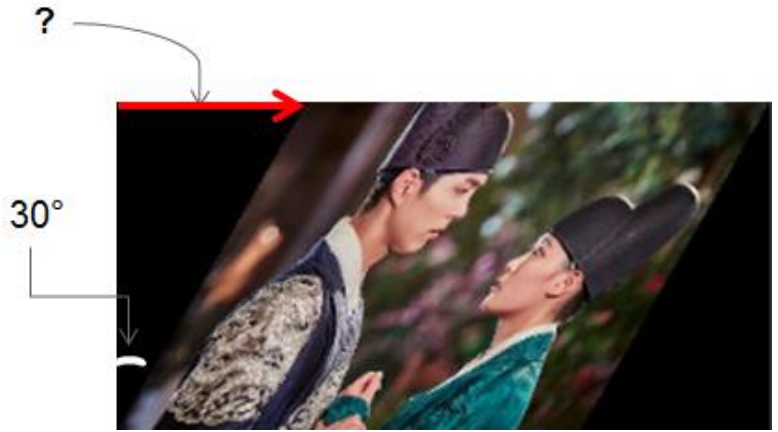
Output

Task 2 | Skewing

- Define a skewing function

```
def skew (img, direction, angle) :
```

- User input
  - Direction - vertical or horizontal
  - Angle - between -89 and 89



- Output
  - Show the skewed image
  - “Wrong input!!” if inputs are not in range

Task 2 | Skewing

- You can use math functions or other built-in functions
  - pi, sin, cos, tan, radians, …
  - abs, …
  - Type conversion

- Refer "***Photo processing with cs1media***" supplement

questions?