Spring 2020 SIT22013

ICT Problem Solving

PA #1

Due date: 10AM, March 11, 2020

March 4, 2020

PA1: Broken Hit Counter

Problem description: A website has a counter that counts the number of hits from outside, that is, the number of connections from outside. The counter is supposed to increase by one for every hit. However, it is broken so that every digit changes from 3 to 5, not to 4. For instance, if the current number is 15339, the next one is 15350, not 15340. Write a program that reads a current number of this hit counter and returns the actual number of the webpage hits.

Requirements

- You must submit `pa01_xxxxx.py` with a short write-up, where xxxxx is your identification number (학번).
- As input, a non-negative integer between 0 and 10^8 is given from the standard input. Note that none of the number's digits is 4.
- Your program should write the answer (an integer) to the standard output.

Examples of inputs and outputs

Input	13	15	1399	999999
Output	12	13	1052	531440

Instructions for PA submission

- How to submit your PA
- Evaluation
- How to use the DOMJudge server
- Input / Output redirection
- Python code to get input data

How to submit your PA

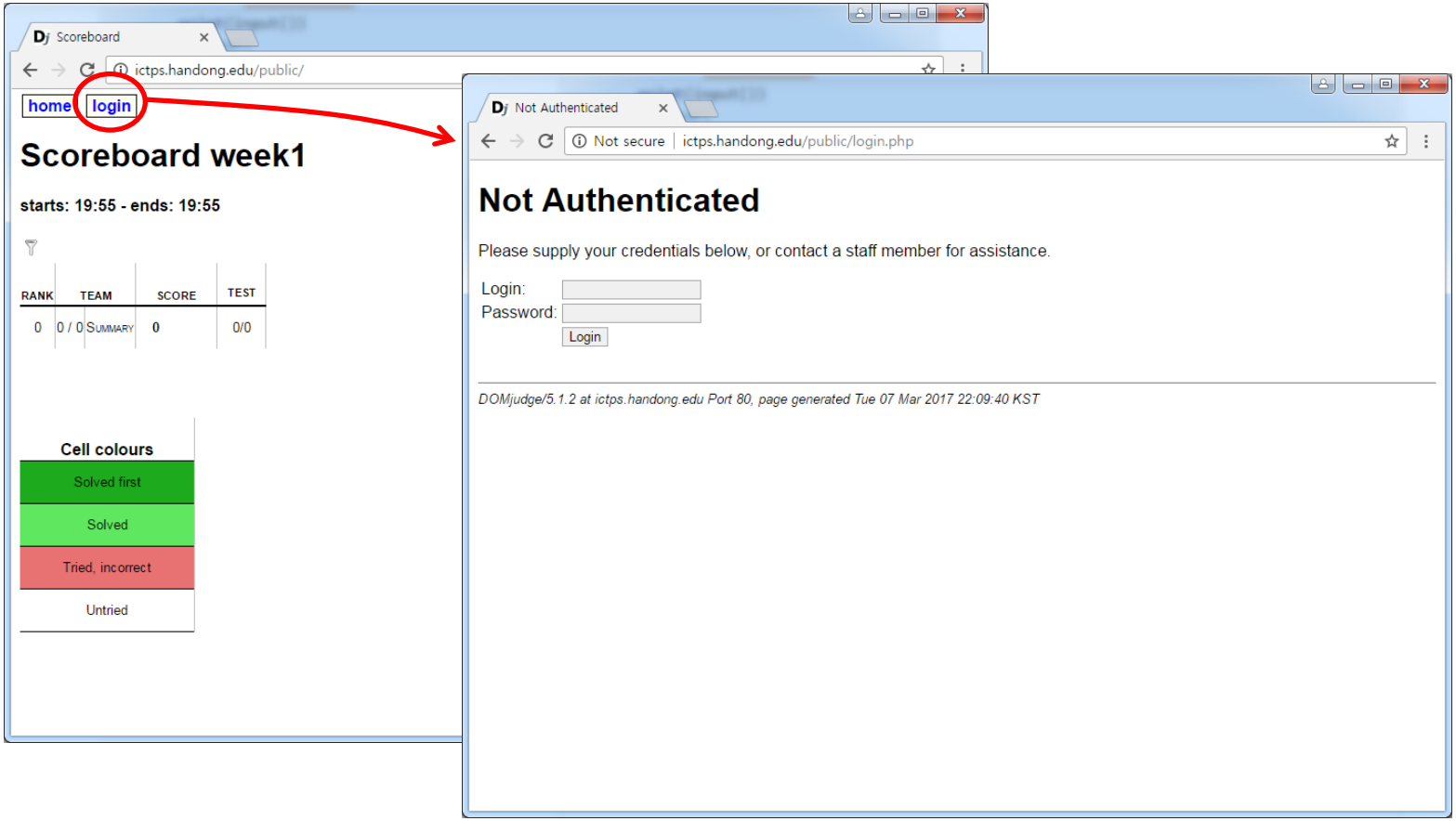
- Instructions for your write-up
  - Do not decorate your slide.
  - Write your name and student ID number on your slide.
  - Upload your PPT/PDF file together with your script file on the course webpage.
    - The PPT/PDF and script file names must be respectively **pa1_xxxxx.pptx** and **pa1_xxxxx.py**, where the PPT/PDF file extension can be .ppt, .pdf, etc.
    - Compress the two files above as a zip file and set the zip file to **pa1_xxxxx.zip**
    - Here, **xxxxx** is your student ID number.
- Account to access the DOMJudge server
  - You can find the ID and PW for your new account in the first notice on the report repository in HISNET.

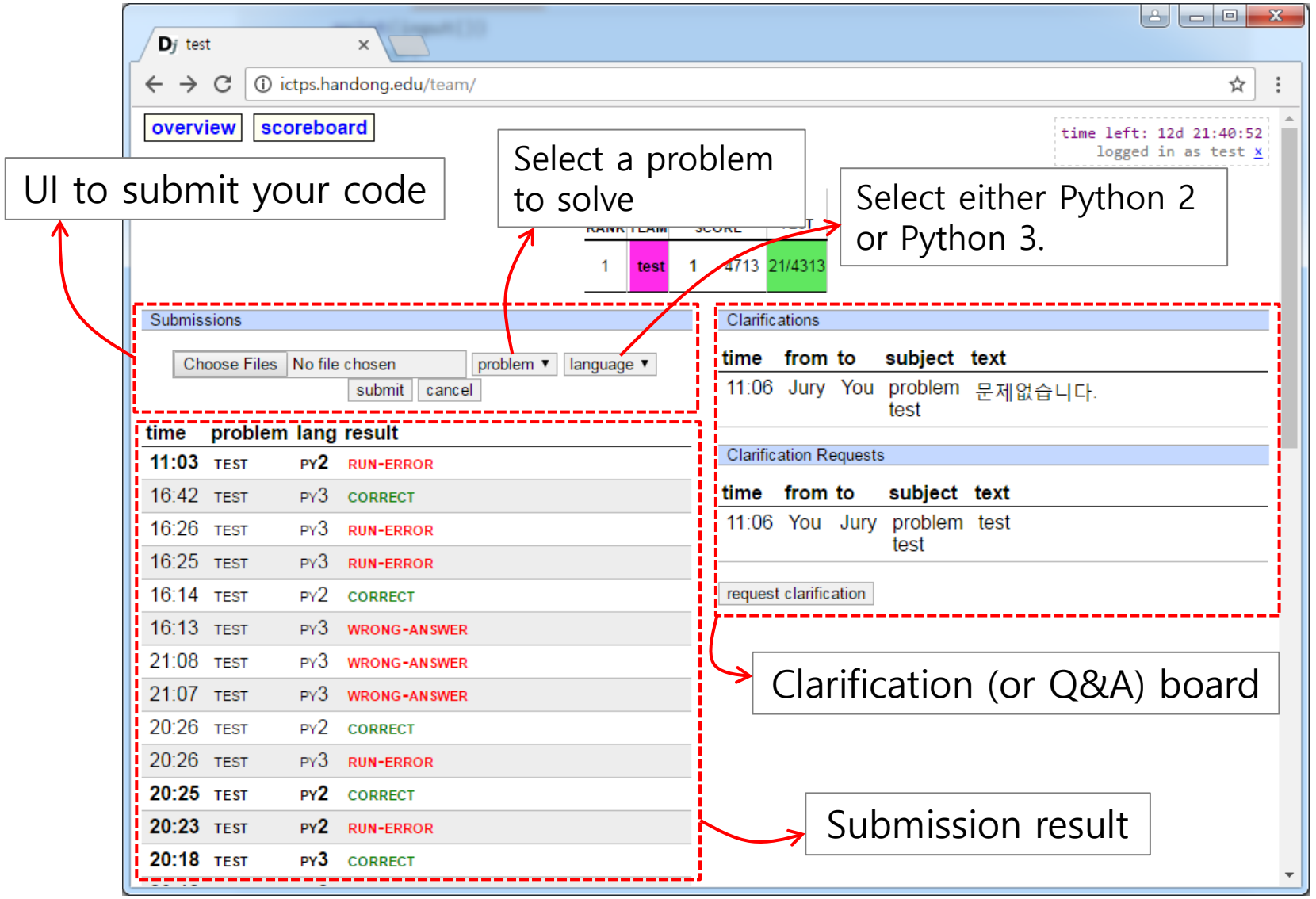
Evaluation

- Test case results: 5
- Presentation: 2.5
- Solution: 2.5
- Extra-points: up to +1
  - Runtime performance: 0.5
  - Best looking code award: 0.5

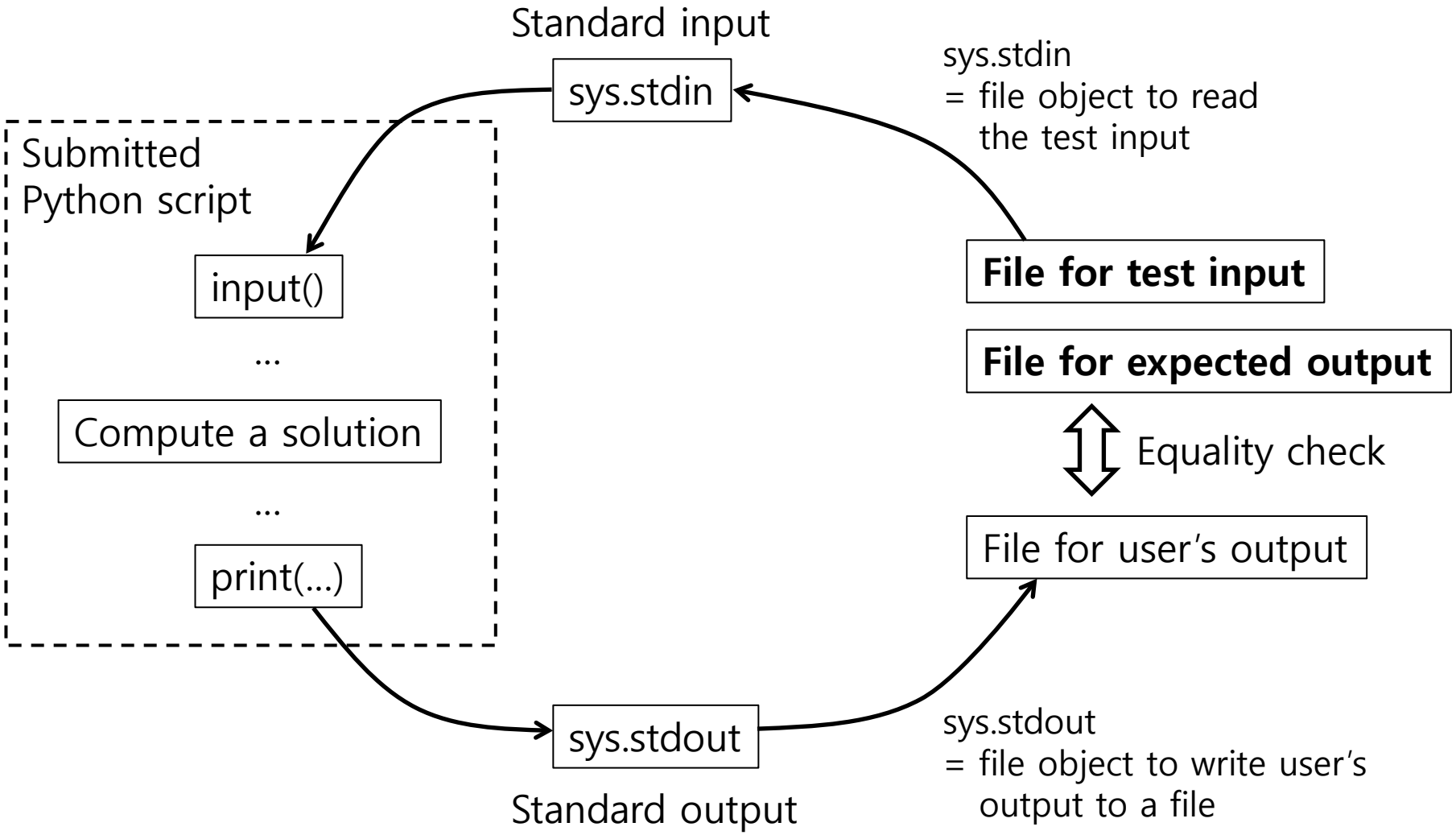
How to use the DOMJudge server

- Website address: http://203.252.125.82/
- Log in with your account.




test
ictps.handong.edu/team/
overview
scoreboard
time left: 12d 21:40:52
logged in as test x
UI to submit your code
Select a problem to solve
Select either Python 2 or Python 3.
1 test 1 4713 21/4313
Submissions
Choose Files No file chosen
problem
language
submit
cancel
time problem lang result
11:03 TEST PY2 RUN-ERROR
16:42 TEST PY3 CORRECT
16:26 TEST PY3 RUN-ERROR
16:25 TEST PY3 RUN-ERROR
16:14 TEST PY2 CORRECT
16:13 TEST PY3 WRONG-ANSWER
21:08 TEST PY3 WRONG-ANSWER
21:07 TEST PY3 WRONG-ANSWER
20:26 TEST PY2 CORRECT
20:26 TEST PY3 RUN-ERROR
20:25 TEST PY2 CORRECT
20:23 TEST PY2 RUN-ERROR
20:18 TEST PY3 CORRECT
Clarifications
time from to subject text
11:06 Jury You problem test 문제없습니다.
Clarification Requests
time from to subject text
11:06 You Jury problem test
request clarification
Clarification (or Q&A) board
Submission result

Input / Output redirection



Python code to get input data

- Examples

Test input	Python code
13	`data = int(input())`
1 12 52	`data = [int(x) for x in input().split()]` → data = [1, 12, 52]

12 52
24 12 12
	`get_data = lambda : [int(x) for x in input().split()]`
	`data1 = get_data()`
	`data2 = get_data()`
	→ data1 = [12, 52]
	data2 = [24, 12, 12]

Note:

- Input() can be replaced by sys.stdin.readline().
- Input() returns a text line which ends with either '₩r₩n' or '₩n'.