CodeBench
EDUCATIONAL MINING DATASET

CodeBench (http://codebench.icomp.ufam.edu.br) is a Programming Online Judge developed by the Institute of Computing (IComp) of the Federal University of Amazonas, Brazil. Through Codebench, teachers can provide lists of programming exercises to their students, who in turn must develop solutions for each exercise through an embedded IDE. Once a student submits a source code for a given exercise, the system instantly notifies the student whether him/her solution is correct or not.

The CodeBench automatically logs all actions performed by students on embedded IDE during their attempts to solve the proposed exercises. This dataset contains all logs collected from CS1 students during both semesters of 2017 and 2018.

Releases

CodeBench Dataset 1.10

- This release of the dataset contains all logs collected from CS1 students during the years 2016 to 2019 (first semester). Each academic year is divided into two semesters.
- Release date: 2019-08-17
- Download options:
    - A single file (812 MB compressed, 9.27GB uncompressed).
    - A file per semester: 2016-1, 2016-2, 2017-1, 2017-2, 2018-1, 2018-2 and 2019-1.
- Release statistics:

	2016-1	2016-2	2017-1	2017-2	2018-1	2018-2	2019-1	Total
CS1 classes	9	5	10	5	9	5	9	**52**
Total number of students	471	172	463	177	465	180	489	**2417**
Homework exercises	681	447	1278	556	1550	893	1559	**6964**
Exam exercises	124	110	163	103	182	107	176	**965**
Codes (developed by students)	30140	9501	38304	10942	47969	13458	38417	**188731**
Tests and submissions of codes	322500	126286	419603	125848	455484	163821	540537	**2154079**

CodeBench Dataset 1.03

- This version of the dataset contains all logs collected from CS1 students during the years 2016 to 2018. Each academic year is divided into two semesters.
- Release date: 2019-05-22
- Download options:
    - A single file (812 MB compressed, 9.27GB uncompressed).
    - A file per semester: 2016-1, 2016-2, 2017-1, 2017-2, 2018-1 and 2018-2.

CodeBench Dataset 1.02

- This version of the dataset contains all logs collected from CS1 students during the years 2016 to 2018. Each academic year is divided into two semesters.
- Release date: 2019-05-02
- Download options:
    - A single file (812 MB compressed, 9.27GB uncompressed).
    - A file per semester: 2016-1, 2016-2, 2017-1, 2017-2, 2018-1 and 2018-2.

CodeBench Dataset 1.01

- This version of the dataset contains all logs collected from CS1 students during the years 2016 to 2018. Each academic year is divided into two semesters.
- Release date: 2019-02-19
- Download options:
    - A single file (812 MB compressed, 9.24GB uncompressed).
    - A file per semester: 2016-1, 2016-2, 2017-1, 2017-2, 2018-1 and 2018-2.

CodeBench Dataset 1.00

- This version of the dataset contains all logs collected from CS1 students during the years 2017 and 2018. Each academic year is divided into two semesters.
- Release date: 2018-12-31

- Download options:
  - [A single file](#) (598 MB compressed, 7.23GB uncompressed).
  - A file per semester: [2017-1](#), [2017-2](#), [2018-1](#) and [2018-2](#).
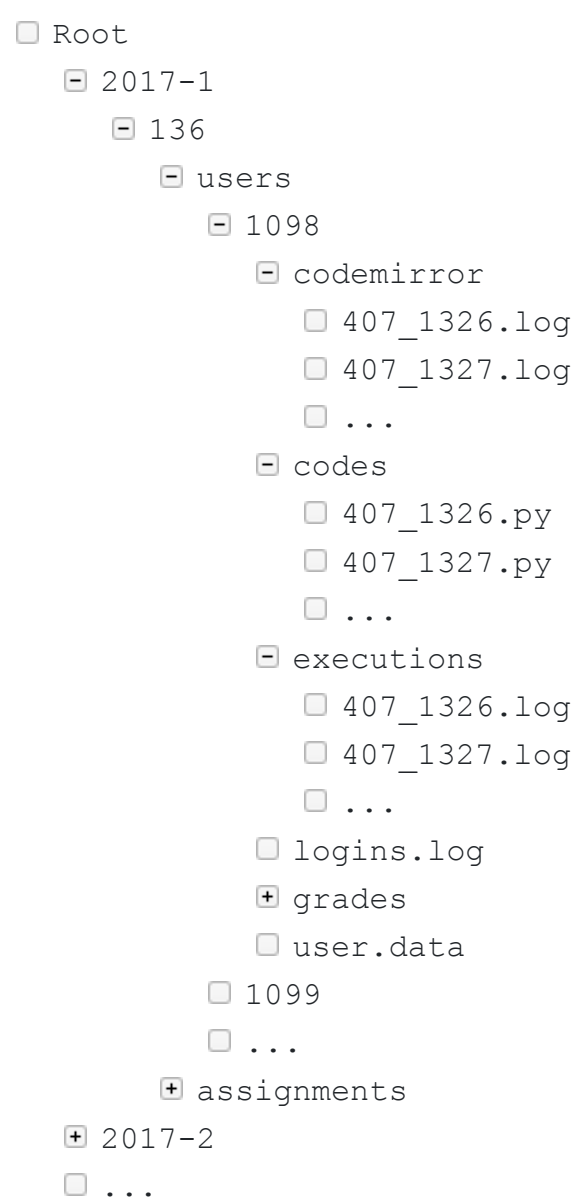
How to Extract the Data

The entire dataset is compressed in a `.tar.gz` file, which can be extracted using auxiliary software. If you use a Unix or a Linux system, you can extract the dataset by using the command `tar xfz cb_dataset_x.yz.tar.gz` (see Figure 1).

Figure 1: How to extract the data.

Dataset Schema

The following widget illustrates the schema of the entire dataset. Please, navigate through the hierarchy of nodes to get a complete overview of the data.

```
☐ Root
  ⊟ 2017-1
    ⊟ 136
      ⊟ users
        ⊟ 1098
          ⊟ codemirror
            ☐ 407_1326.log
            ☐ 407_1327.log
            ☐ ...
          ⊟ codes
            ☐ 407_1326.py
            ☐ 407_1327.py
            ☐ ...
          ⊟ executions
            ☐ 407_1326.log
            ☐ 407_1327.log
            ☐ ...
          ☐ logins.log
          ⊞ grades
          ☐ user.data
        ☐ 1099
        ☐ ...
      ⊞ assignments
  ⊞ 2017-2
  ☐ ...
```

Sample Files

File `2017-1/136/users/1098/codes/407_1326.py`

```
total = 40 + 35
print(total)
```

File `2017-1/136/users/1098/codemirror/407_1326.log`

```
2017-3-13 17:27:27.798#viewportChange#0
2017-3-13 17:27:59.597#mousedown#{"isTrusted":true}
2017-3-13 17:27:59.602#focus#
2017-3-13 17:28:14.346#change#{"from":{"line":0,"ch":0},"to":{"line":0,"ch":0},"text":["a"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:14.733#change#{"from":{"line":0,"ch":1},"to":{"line":0,"ch":1},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:28:14.901#change#{"from":{"line":0,"ch":2},"to":{"line":0,"ch":2},"text":["="],"removed":[""],"origin":"+input"}
2017-3-13 17:28:15.021#change#{"from":{"line":0,"ch":3},"to":{"line":0,"ch":3},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:28:21.341#change#{"from":{"line":0,"ch":4},"to":{"line":0,"ch":4},"text":["4"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:22.229#change#{"from":{"line":0,"ch":5},"to":{"line":0,"ch":5},"text":["0"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:35.149#change#{"from":{"line":0,"ch":6},"to":{"line":0,"ch":6},"text":["",""],"removed":[""],"origin":"+input"}
2017-3-13 17:28:35.149#keyHandled#"Enter"
2017-3-13 17:28:35.159#viewportChange#0
2017-3-13 17:28:38.517#change#{"from":{"line":1,"ch":0},"to":{"line":1,"ch":0},"text":["b"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:38.869#change#{"from":{"line":1,"ch":1},"to":{"line":1,"ch":1},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:28:39.125#change#{"from":{"line":1,"ch":2},"to":{"line":1,"ch":2},"text":["="],"removed":[""],"origin":"+input"}
2017-3-13 17:28:39.245#change#{"from":{"line":1,"ch":3},"to":{"line":1,"ch":3},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:28:40.949#change#{"from":{"line":1,"ch":4},"to":{"line":1,"ch":4},"text":["2"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:41.889#change#{"from":{"line":1,"ch":4},"to":{"line":1,"ch":5},"text":[""],"removed":["2"],"origin":"+delete"}
2017-3-13 17:28:41.889#keyHandled#"Backspace"
2017-3-13 17:28:42.525#change#{"from":{"line":1,"ch":4},"to":{"line":1,"ch":4},"text":["3"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:42.853#change#{"from":{"line":1,"ch":5},"to":{"line":1,"ch":5},"text":["5"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:44.953#change#{"from":{"line":1,"ch":6},"to":{"line":1,"ch":6},"text":["",""],"removed":[""],"origin":"+input"}
2017-3-13 17:28:44.954#keyHandled#"Enter"
2017-3-13 17:28:44.965#viewportChange#0
2017-3-13 17:28:46.733#change#{"from":{"line":2,"ch":0},"to":{"line":2,"ch":0},"text":["p"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:46.885#change#{"from":{"line":2,"ch":1},"to":{"line":2,"ch":1},"text":["r"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:47.109#change#{"from":{"line":2,"ch":2},"to":{"line":2,"ch":2},"text":["i"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:47.373#change#{"from":{"line":2,"ch":3},"to":{"line":2,"ch":3},"text":["n"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:47.605#change#{"from":{"line":2,"ch":4},"to":{"line":2,"ch":4},"text":["t"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:50.369#change#{"from":{"line":2,"ch":5},"to":{"line":2,"ch":5},"text":["()"],"removed":[""],"origin":"+input"}
2017-3-13 17:28:50.369#keyHandled#"'('"
2017-3-13 17:28:52.083#change#{"from":{"line":2,"ch":6},"to":{"line":2,"ch":6},"text":["\"\""],"removed":[""],"origin":"+input"}
2017-3-13 17:28:52.083#keyHandled#"'\"'"
2017-3-13 17:30:31.907#viewportChange#0
2017-3-13 17:30:56.332#mousedown#{"isTrusted":true}
2017-3-13 17:30:56.349#focus#
2017-3-13 17:30:57.249#change#{"from":{"line":1,"ch":6,"xRel":1},"to":{"line":1,"ch":6,"xRel":1},"text":["",""],"removed":
[""],"origin":"+input"}
2017-3-13 17:30:57.249#keyHandled#"Enter"
2017-3-13 17:30:57.262#viewportChange#0
2017-3-13 17:30:59.048#change#{"from":{"line":2,"ch":0},"to":{"line":2,"ch":0},"text":["s"],"removed":[""],"origin":"+input"}
2017-3-13 17:30:59.246#change#{"from":{"line":2,"ch":1},"to":{"line":2,"ch":1},"text":["o"],"removed":[""],"origin":"+input"}
2017-3-13 17:30:59.710#change#{"from":{"line":2,"ch":3},"to":{"line":2,"ch":3},"text":["a"],"removed":[""],"origin":"+input"}
2017-3-13 17:31:00.878#change#{"from":{"line":2,"ch":4},"to":{"line":2,"ch":4},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:31:01.129#change#{"from":{"line":2,"ch":5},"to":{"line":2,"ch":5},"text":["="],"removed":[""],"origin":"+input"}
2017-3-13 17:31:01.295#change#{"from":{"line":2,"ch":6},"to":{"line":2,"ch":6},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:31:03.646#change#{"from":{"line":2,"ch":7},"to":{"line":2,"ch":7},"text":["a"],"removed":[""],"origin":"+input"}
2017-3-13 17:31:04.166#change#{"from":{"line":2,"ch":8},"to":{"line":2,"ch":8},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:31:05.193#change#{"from":{"line":2,"ch":10},"to":{"line":2,"ch":10},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:31:06.452#change#{"from":{"line":2,"ch":11},"to":{"line":2,"ch":11},"text":["b"],"removed":[""],"origin":"+input"}
2017-3-13 17:31:07.922#mousedown#{"isTrusted":true}
2017-3-13 17:31:09.877#change#{"from":{"line":3,"ch":7,"xRel":1},"to":{"line":3,"ch":7,"xRel":1},"text":["s"],"removed":
[""],"origin":"+input"}
2017-3-13 17:31:10.100#change#{"from":{"line":3,"ch":8},"to":{"line":3,"ch":8},"text":["o"],"removed":[""],"origin":"+input"}
2017-3-13 17:31:10.333#change#{"from":{"line":3,"ch":9},"to":{"line":3,"ch":9},"text":["m"],"removed":[""],"origin":"+input"}
2017-3-13 17:31:10.468#change#{"from":{"line":3,"ch":10},"to":{"line":3,"ch":10},"text":["a"],"removed":[""],"origin":"+input"}
2017-3-13 17:31:13.480#blur#
2017-3-13 17:31:13.480#blur#
2017-3-13 17:31:27.260#submit#Your code did not produce the correct output. Please, correct your code and try again.
2017-3-13 17:31:40.528#mousedown#{"isTrusted":true}
2017-3-13 17:31:40.543#focus#
2017-3-13 17:31:42.336#change#{"from":{"line":2,"ch":0,"xRel":1},"to":{"line":2,"ch":0,"xRel":1},"text":["\t"],"removed":
[""],"origin":"+input"}
2017-3-13 17:31:42.338#keyHandled#"Tab"
2017-3-13 17:31:46.674#blur#
2017-3-13 17:31:51.662#mousedown#{"isTrusted":true}
2017-3-13 17:31:51.671#focus#
2017-3-13 17:31:53.514#change#{"from":{"line":2,"ch":0},"to":{"line":2,"ch":1},"text":[""],"removed":["\t"],"origin":"+delete"}
2017-3-13 17:31:53.514#keyHandled#"Backspace"
2017-3-13 17:32:52.018#mousedown#{"isTrusted":true}
2017-3-13 17:32:52.772#change#{"from":{"line":0,"ch":0,"xRel":-1},"to":{"line":0,"ch":0,"xRel":-1},"text":["",""],"removed":
[""],"origin":"+input"}
2017-3-13 17:32:52.772#keyHandled#"Enter"
2017-3-13 17:32:52.790#viewportChange#0
2017-3-13 17:32:53.105#keyHandled#"Up"
2017-3-13 17:32:56.150#change#{"from":{"line":0,"ch":0,"xRel":0},"to":{"line":0,"ch":0,"xRel":0},"text":["t"],"removed":
[""],"origin":"+input"}
2017-3-13 17:32:56.372#change#{"from":{"line":0,"ch":1},"to":{"line":0,"ch":1},"text":["o"],"removed":[""],"origin":"+input"}
2017-3-13 17:32:56.677#change#{"from":{"line":0,"ch":2},"to":{"line":0,"ch":2},"text":["t"],"removed":[""],"origin":"+input"}
2017-3-13 17:32:57.133#change#{"from":{"line":0,"ch":3},"to":{"line":0,"ch":3},"text":["a"],"removed":[""],"origin":"+input"}
2017-3-13 17:32:57.276#change#{"from":{"line":0,"ch":4},"to":{"line":0,"ch":4},"text":["l"],"removed":[""],"origin":"+input"}
2017-3-13 17:32:58.388#change#{"from":{"line":0,"ch":5},"to":{"line":0,"ch":5},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:32:59.798#change#{"from":{"line":0,"ch":7},"to":{"line":0,"ch":7},"text":[" "],"removed":[""],"origin":"+input"}
```

```
2017-3-13 17:33:04.430#change#{"from":{"line":0,"ch":8},"to":{"line":0,"ch":8},"text":["4"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:04.662#change#{"from":{"line":0,"ch":9},"to":{"line":0,"ch":9},"text":["0"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:06.165#change#{"from":{"line":0,"ch":10},"to":{"line":0,"ch":10},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:33:07.500#change#{"from":{"line":0,"ch":11},"to":{"line":0,"ch":11},"text":["+"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:08.379#change#{"from":{"line":0,"ch":12},"to":{"line":0,"ch":12},"text":[" "],"removed":[""],"origin":"+input"}
2017-3-13 17:33:08.619#change#{"from":{"line":0,"ch":13},"to":{"line":0,"ch":13},"text":["3"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:08.828#change#{"from":{"line":0,"ch":14},"to":{"line":0,"ch":14},"text":["5"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:19.193#mousedown#{"isTrusted":true}
2017-3-13 17:33:20.888#change#{"from":{"line":1,"ch":0,"xRel":1},"to":{"line":3,"ch":12,"xRel":1},"text":[""],"removed":["a = 40","b = 35","soma = a + b"],"origin":"+delete"}
2017-3-13 17:33:20.888#keyHandled#"Backspace"
2017-3-13 17:33:20.901#viewportChange#0
2017-3-13 17:33:22.497#mousedown#{"isTrusted":true}
2017-3-13 17:33:23.527#change#{"from":{"line":1,"ch":0},"to":{"line":2,"ch":0,"xRel":-1},"text":[""],"removed":["",""],"origin":"+delete"}
2017-3-13 17:33:23.527#keyHandled#"Backspace"
2017-3-13 17:33:23.537#viewportChange#0
2017-3-13 17:33:26.038#change#{"from":{"line":1,"ch":7,"xRel":1},"to":{"line":1,"ch":11,"xRel":-1},"text":["t"],"removed":["soma"],"origin":"+input"}
2017-3-13 17:33:26.371#change#{"from":{"line":1,"ch":8},"to":{"line":1,"ch":8},"text":["o"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:26.659#change#{"from":{"line":1,"ch":9},"to":{"line":1,"ch":9},"text":["t"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:26.779#change#{"from":{"line":1,"ch":10},"to":{"line":1,"ch":10},"text":["a"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:27.098#change#{"from":{"line":1,"ch":11},"to":{"line":1,"ch":11},"text":["l"],"removed":[""],"origin":"+input"}
2017-3-13 17:33:30.800#blur#
2017-3-13 17:33:50.594#mousedown#{"isTrusted":true}
2017-3-13 17:33:50.602#focus#
2017-3-13 17:34:00.653#mousedown#{"isTrusted":true}
2017-3-13 17:34:01.598#change#{"from":{"line":1,"ch":12},"to":{"line":1,"ch":13,"xRel":0},"text":[""],"removed":["\""],"origin":"+delete"}
2017-3-13 17:34:01.598#keyHandled#"Backspace"
2017-3-13 17:34:02.989#mousedown#{"isTrusted":true}
2017-3-13 17:34:03.279#change#{"from":{"line":1,"ch":6},"to":{"line":1,"ch":7,"xRel":-1},"text":[""],"removed":["\""],"origin":"+delete"}
2017-3-13 17:34:03.279#keyHandled#"Backspace"
2017-3-13 17:34:06.014#blur#
2017-3-13 17:34:10.177#mousedown#{"isTrusted":true}
2017-3-13 17:34:10.189#focus#
2017-3-13 17:34:10.177#mousedown#{"isTrusted":true}
2017-3-13 17:34:10.189#focus#
2017-3-13 17:34:14.023#submit#Congratulations, your code is correct!
```

File `2017-1/136/users/1098/executions/407_1326.log`

```
== TEST (2017-03-13 17:31:14)
-- CODE:
a = 40
b = 35
soma = a + b
print("soma")
-- OUTPUT:
soma
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
== SUBMITION (2017-03-13 17:31:26)
-- CODE:
a = 40
b = 35
soma = a + b
print("soma")
-- EXECUTION TIME:

-- TEST CASE 1:
---- input:
xx
---- correct output:
75
---- user output:
soma
-- GRADE:
0%
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
== TEST (2017-03-13 17:31:46)
-- CODE:
a = 40
b = 35
        soma = a + b
print("soma")
-- ERROR:
File "XXXX", line 3
    soma = a + b
    ^
IndentationError: unexpected indent
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
== TEST (2017-03-13 17:33:30)
-- CODE:
total = 40 + 35
print("total")
-- OUTPUT:
total
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
== TEST (2017-03-13 17:34:05)
-- CODE:
total = 40 + 35
print(total)
-- OUTPUT:
75
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
== SUBMITION (2017-03-13 17:34:12)
-- CODE:
total = 40 + 35
print(total)
-- EXECUTION TIME:

-- TEST CASE 1:
---- input:
xx
---- correct output:
75
---- user output:
75
-- GRADE:
100%
*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*-*
```

File `2017-1/136/assessments/407.data` — **example of homework data**

```
-- ASSESSMENT DATA:
---- assessment title: Laboratório de Codificação 0 – Primeiros passos com o Python
---- class name: Introdução à Ciência dos Computadores
---- class number: 136
---- start: 2017-03-13 16:00
---- end: 2017-05-15 23:59
---- language: Python 3
---- codemirror mode: python/python.js
---- type: homework
---- weight: 1
---- total_exercises: 14
-- EXERCISES:
---- exercise 01: 994
---- exercise 02: 996
---- exercise 03: 1326
---- exercise 04: 1327
---- exercise 05: 1328
---- exercise 06: 1329
---- exercise 07: 1330
---- exercise 08: 1331
---- exercise 09: 1332
---- exercise 10: 1333
---- exercise 11: 1334
---- exercise 12: 579
---- exercise 13: 1559
---- exercise 14: 1560
```

File `2017-1/137/assessments/476.data` — example of exam data

```
-- ASSESSMENT DATA:
---- assessment title: Trabalho Prático 01: Variáveis e Estrutura Sequencial de Programação
---- class name: Introdução à Ciência dos Computadores
---- class number: 137
---- start: 2017-04-03 18:00
---- end: 2017-04-03 19:55
---- language: Python 3
---- codemirror mode: python/python.js
---- type: exam
---- weight: 1
---- total_exercises: 2
-- EXERCISES:
---- exercise 01: 1367 or 1361 or 1370 or 1371 or 1368 or 1362 or 1372 or 1369 or 1365 or 1364 or 1366 or 1363
---- exercise 02: 1833 or 1834 or 1835 or 1836 or 1837 or 1838 or 1839 or 1840 or 1841 or 1842
```

File `2017-1/136/users/1098/grades/407.log`

```
---- final score  (0-10): 10
---- number of exercises: 14
---- correct: 14
---- incorrect: 0
---- blank: 0
```

File `2017-1/136/users/1098/grades/final_grade.data`

```
5.57
```

File `2017-1/136/users/1098/user.data`

```
-- CURRENT DEGREE COURSE:
---- course id: 13
---- course name: Física - Bacharelado
---- institution id: 1
---- institution name: Universidade Federal do Amazonas
-- HIGH SCHOOL:
---- high school name: Maria da Luz Calderaro
---- school type: public school
---- shift: afternoon shift
---- graduation year: 2014
-- PERSONAL COMPUTER:
---- has a PC at home: yes
---- share this PC with other people at home: yes
---- this PC has access to Internet: yes (high-speed Internet)
---- previous experience of any computer language: yes (Python)
-- WORK:
---- worked or interned before the degree: yes
---- company name: Conselho Municipal de Saúde
---- year started working: 2013
---- year stopped working: 2014
-- PREVIOUS DEGREE:
---- started other degree programmes: no
---- degree course: n/a
---- institution name: n/a
---- year started this degree: n/a
---- year stopped this degree: n/a
-- OTHER INFORMATION:
---- sex: male
---- year of birth: 1997
---- civil status: single
---- have kids: no
```

File 2017-1/136/users/1098/logins.log

```
2017-03-13 16:02:10#user/login.
2017-03-13 16:03:41#user/logout.
2017-03-13 16:58:08#user/login.
2017-03-13 17:45:09#user/logout.
2017-03-14 20:08:00#user/login.
2017-03-14 20:11:01#user/logout.
2017-03-14 20:12:08#user/login.
2017-03-14 20:14:48#user/logout.
2017-03-14 20:30:10#user/login.
2017-03-14 20:31:39#user/logout.
2017-03-15 11:09:42#user/login.
2017-03-15 11:39:25#user/logout.
2017-03-15 16:05:53#user/login.
2017-03-15 16:22:10#user/login.
2017-03-15 17:05:31#user/login.
2017-03-15 17:20:03#user/logout.
2017-03-16 21:43:48#user/login.
2017-03-18 19:57:05#user/login.
2017-03-19 15:59:22#user/login.
2017-03-20 16:01:34#user/login.
2017-03-20 17:40:03#user/logout.
2017-03-22 16:04:38#user/login.
2017-03-22 17:50:45#user/logout.
2017-03-26 16:43:21#user/login.
2017-03-26 17:48:23#user/logout.
2017-03-26 19:01:02#user/login.
2017-03-26 19:03:50#user/logout.
2017-03-26 23:03:44#user/login.
2017-03-26 23:09:21#user/logout.
2017-03-27 14:09:09#user/login.
2017-03-27 15:01:54#user/logout.
2017-03-27 15:44:54#user/login.
2017-03-27 16:39:17#user/login.
2017-03-27 22:37:38#user/login.
2017-03-27 22:40:44#user/logout.
2017-03-27 23:03:02#user/login.
2017-03-27 23:03:48#user/logout.
2017-03-27 23:45:02#user/login.
2017-03-27 23:49:50#user/logout.
2017-03-28 21:26:53#user/login.
2017-03-28 21:28:38#user/logout.
2017-03-28 21:31:08#user/login.
2017-03-28 21:32:09#user/logout.
2017-03-28 21:38:12#user/login.
2017-03-28 21:39:17#user/logout.
2017-03-28 22:36:39#user/login.
2017-03-28 22:36:39#user/login.
2017-03-28 22:38:41#user/logout.
2017-04-02 19:28:23#user/login.
2017-04-02 20:58:03#user/logout.
2017-04-03 16:01:51#user/login.
2017-04-03 16:09:34#user/logout.
2017-04-03 16:27:13#user/login.
2017-04-03 16:33:14#user/logout.
2017-04-03 16:58:32#user/login.
2017-04-03 17:19:40#user/logout.
2017-04-03 17:19:49#user/login.
2017-04-03 17:20:09#user/logout.
2017-04-05 16:05:31#user/login.
2017-04-05 16:31:10#user/logout.
2017-04-05 16:32:25#user/login.
2017-04-05 17:30:07#user/login.
2017-04-05 17:30:07#user/logout.
2017-04-05 17:30:17#user/login.
2017-04-05 17:36:53#user/logout.
2017-04-06 17:31:52#user/login.
2017-04-06 17:36:10#user/logout.
2017-04-06 19:59:39#user/login.
2017-04-09 16:10:34#user/login.
2017-04-09 16:43:00#user/logout.
2017-04-10 06:37:10#user/login.
2017-04-10 07:55:41#user/logout.
2017-04-11 23:38:38#user/login.
2017-04-11 23:40:40#user/logout.
2017-04-13 12:53:27#user/login.
2017-04-13 13:03:54#user/logout.
2017-04-13 21:11:42#user/login.
2017-04-13 21:14:04#user/logout.
2017-04-14 17:52:24#user/login.
2017-04-14 18:09:09#user/logout.
2017-04-17 11:21:38#user/login.
2017-04-17 11:33:49#user/logout.
2017-04-17 14:07:15#user/login.
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2017-04-17 14:23:51#user/logout.
2017-04-17 16:59:06#user/login.
2017-04-17 17:54:58#user/logout.
2017-04-19 16:01:16#user/login.
2017-04-19 16:03:42#user/login.
2017-04-19 16:03:45#user/logout.
2017-04-19 16:06:00#user/login.
2017-04-19 17:40:20#user/logout.
2017-04-20 12:40:18#user/login.
2017-04-20 12:40:29#user/logout.
2017-04-20 12:40:43#user/login.
2017-04-23 20:38:53#user/login.
2017-04-23 21:09:58#user/logout.
2017-04-23 22:15:42#user/login.
2017-04-23 22:16:31#user/login.
2017-04-23 22:16:33#user/logout.
2017-04-25 19:57:45#user/login.
2017-04-25 20:04:28#user/logout.
2017-04-26 11:11:51#user/login.
2017-04-26 11:16:25#user/logout.
2017-04-26 13:03:09#user/login.
2017-04-26 13:11:11#user/logout.
2017-04-26 15:17:02#user/login.
2017-04-26 15:17:28#user/logout.
2017-04-27 20:31:41#user/login.
2017-04-27 20:35:15#user/logout.
2017-04-28 20:54:05#user/login.
2017-04-28 20:56:38#user/logout.
2017-04-29 09:05:17#user/login.
2017-04-29 09:06:53#user/logout.
2017-05-02 19:45:43#user/login.
2017-05-03 05:16:00#user/login.
2017-05-03 05:39:59#user/logout.
2017-05-03 14:07:40#user/login.
2017-05-03 16:58:31#user/login.
2017-05-03 17:46:14#user/logout.
2017-05-06 10:25:07#user/login.
2017-05-06 10:45:47#user/logout.
2017-05-08 16:11:04#user/login.
2017-05-08 16:18:12#user/logout.
2017-05-08 16:18:19#user/login.
2017-05-08 17:03:44#user/login.
2017-05-08 17:44:43#user/logout.
2017-05-10 12:18:56#user/login.
2017-05-10 14:11:13#user/logout.
2017-05-10 20:39:17#user/login.
2017-05-10 20:58:29#user/logout.
2017-05-10 21:00:21#user/login.
2017-05-10 21:32:28#user/logout.
2017-05-12 11:35:11#user/login.
2017-05-12 11:36:00#user/logout.
2017-05-16 13:57:10#user/login.
2017-05-16 13:58:01#user/logout.
2017-05-16 21:21:34#user/login.
2017-05-16 21:25:57#user/logout.
2017-05-16 22:16:07#user/login.
2017-05-16 22:28:15#user/logout.
2017-05-17 10:50:43#user/login.
2017-05-17 10:54:49#user/logout.
2017-05-17 16:11:34#user/login.
2017-05-17 16:14:50#user/logout.
2017-05-17 16:58:39#user/login.
2017-05-17 17:54:41#user/logout.
2017-05-17 17:55:04#user/login.
2017-05-17 17:55:16#user/logout.
2017-05-22 16:06:25#user/login.
2017-05-22 16:42:24#user/logout.
2017-05-22 16:42:35#user/login.
2017-05-22 17:45:17#user/logout.
2017-05-22 20:57:28#user/login.
2017-05-22 21:49:22#user/logout.
2017-05-24 16:18:55#user/login.
2017-05-24 16:50:33#user/logout.
2017-05-27 10:17:43#user/login.
2017-05-27 10:20:58#user/logout.
2017-05-30 20:52:14#user/login.
2017-05-30 20:53:02#user/logout.
2017-05-31 14:13:43#user/login.
2017-05-31 14:14:41#user/logout.
2017-05-31 14:50:41#user/login.
2017-05-31 15:25:18#user/logout.
2017-05-31 15:26:31#user/login.
2017-05-31 15:26:32#user/login.
```

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2017-05-31 15:37:59#user/logout.
2017-05-31 15:54:57#user/login.
2017-05-31 16:54:19#user/logout.
2017-05-31 16:54:35#user/login.
2017-05-31 16:54:47#user/logout.
2017-06-05 16:09:03#user/login.
2017-06-05 17:37:14#user/logout.
2017-06-07 15:08:39#user/login.
2017-06-07 15:19:36#user/logout.
2017-06-08 16:48:54#user/login.
2017-06-08 17:44:56#user/logout.
2017-06-12 13:03:34#user/login.
2017-06-12 13:04:22#user/logout.
2017-06-14 16:26:15#user/login.
2017-06-14 16:29:11#user/logout.
2017-06-15 13:30:07#user/login.
2017-06-15 13:30:53#user/logout.
2017-06-17 12:27:49#user/login.
2017-06-17 12:28:21#user/logout.
2017-06-18 22:47:02#user/login.
2017-06-18 22:51:16#user/logout.
2017-06-19 15:01:10#user/login.
2017-06-19 15:07:13#user/logout.
2017-06-19 15:57:37#user/login.
2017-06-19 16:44:01#user/logout.
2017-06-21 16:04:20#user/login.
2017-06-21 17:34:41#user/logout.
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2017-07-02 23:17:20#user/logout.
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2017-07-03 12:52:17#user/logout.
2017-07-03 15:32:42#user/login.
2017-07-03 15:40:17#user/login.
2017-07-03 15:46:59#user/login.
2017-07-03 15:55:36#user/logout.
2017-07-03 16:03:37#user/login.
2017-07-03 16:20:15#user/logout.
2017-07-03 16:26:53#user/login.
2017-07-03 16:28:59#user/logout.
2017-07-03 16:41:22#user/login.
2017-07-03 16:44:13#user/logout.
2017-07-03 16:45:16#user/login.
2017-07-03 16:46:30#user/logout.
2017-07-05 12:54:34#user/login.
2017-07-05 13:00:07#user/logout.
2017-07-05 13:01:32#user/login.
2017-07-05 13:13:04#user/logout.
```

Release History

CodeBench Dataset 1.10 (released 2019-08-17)

Inclusion of the 2019/1 data.

CodeBench Dataset 1.03 (released 2019-05-22)

This is a small bug fix release.

CodeBench Dataset 1.02 (released 2019-05-03)

This is a small bug fix release.

CodeBench Dataset 1.01 (released 2019-02-14)

Inclusion of the 2016 data.

CodeBench Dataset 1.00 (released 2018-12-31)

Initial version.